# The Quality of Industrial Policy as a Determinant of Middle Income Traps

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### Abstract

A middle income trap is defined as a situation where an economy is unable to create value beyond what is delivered by given advantages. Such advantages include natural, demographic, and geographical factors as well as external factors such as trade, aid, and investment inflow. The private sector should be the main driver of economic growth, but it is generally recognized that the proper guiding role of government is equally important. This paper presents the hypothesis that the lack of policy quality is the major cause of middle income traps among today's emerging and developing economies. While policy must be improved on all fronts including productive, social, and macroeconomic aspects to overcome the trap, this study focuses on the quality of industrial policy. Various sub-components of industrial policy are evaluated, and grades are given to selected Asian and African governments based on interviews with policy makers, businesses, and other stakeholders in each country. Improving industrial policy requires not just discussion of what needs to be done but, more importantly, a reform of policy methodology in which appropriate design, implementation, and monitoring of industrial policy must be learned and practiced.

Key words: emerging economies, industrial policy, middle income trap

JEL: O14. O25

### 1. Introduction

The present study looks at middle income traps not so much in their phenomenal aspects but from the perspective of identifying their causes and suggesting remedies. Arguments given below are empirical in the sense that they were derived from extensive interviews with policy makers, enterprises, researchers, and business organizations in selected Asian and African countries rather than from pure theory. Sustainable economic growth and transformation are generated by various national factors including private sector dynamism, leadership and politics, and the knowledge of appropriate policy methods, all of which are distributed unevenly across countries and periods. This study confines its attention to the last factor, namely, the amount of practical policy knowledge each country possesses, while the others are treated as background factors that influence the efficiency with which each government learns and practices policy. The hypothesis advanced here is that the quality of industrial policy matters greatly in overcoming a middle income trap. The way to measure industrial policy quality is also proposed.

### 2. Definition

A middle income trap may be described generally as a situation in which a nation is unable to rise above middle income for a long time. "A long time" may be specified as spending at least 28 years in lower middle income or 14 years in upper middle income, as suggested by Felipe, Abdon & Kumar (2012) who examined the data of 124 countries over 1950-2010. Other technical definitions should also be possible. However, for policy makers a more analytical, rather than statistical, definition of a trap is desired in order to investigate its possible causes and remedies.

Discussions that point to this direction in the East Asian context include Suehiro (2014) who contends that a middle income trap arises when industrialization driven by low-cost advantages (cheap labor and capital) comes to an end, and Kwan (2013) who says that a country unable to find new sources and pattern of growth will fall into a trap. In addition to such supply-side problems, Hara (2014, 2015) cites inability to cope with gaping income gaps as an equally important cause of a trap. Tran (2010, 2013) points to the lack of high-quality institutions as a deeper cause of such policy failure. These arguments imply that a country at some point on its growth path enters a phase in which more proactive policy response is required besides just liberalization, privatization, and integration.

The present study defines a middle income trap as a situation where an economy is unable to create new value beyond what is delivered by given advantages. Here, given advantages include natural, demographic, and geographical factors as well as external factors such as trade, aid, and foreign investment. Development in the true sense occurs when value (GDP) is created and constantly augmented by domestic citizens and enterprises. When the main engine of growth is

economic liberalization, new trade opportunities under globalization, export of natural resources, inflows of foreign capital and investment, aggressive public spending, real estate bubbles, and so on, chances are that domestic citizens and enterprises are not creating much value. Furthermore, the presence of such advantages often impedes accumulation of knowledge, skills, and technology because of various psychological, political, and economic reasons. The Curse of Natural Resources, also known as the Dutch Disease, is well publicized. But having non-resource advantages can also negatively affect industrialization. Another way to put it is that growth generated by given advantages is mostly quantitative rather than qualitative.

Three additional comments are in order.

First, any country that has suffered an internal or external conflict or private sector suppression, and starts from a very low level of everything, can enjoy rapid growth for a decade or two simply by liberalization, privatization, and integration. However, as one-time freeing effects are exhausted, a critical moment arrives when growth begins to slow and Washington Consensus measures are no longer effective in stimulating it. That is when most countries realize that they are trapped. Beyond this point, fast growth can be sustained only if proactive industrial policy is installed to revitalize the private sector to meet a greater challenge. Although some still argue that freeing markets will automatically put a country on a high growth path, this paper does not share such optimism.

Second, even after the trap sets in, the economy can continue to grow as long as given advantages—public spending, capital inflow, land inflation, etc.—are still at work. It is not that growth suddenly drops to zero but just that remaining growth momentum is insufficient to propel the economy to high income even in the long run. The situation is illustrated in Figure 1.

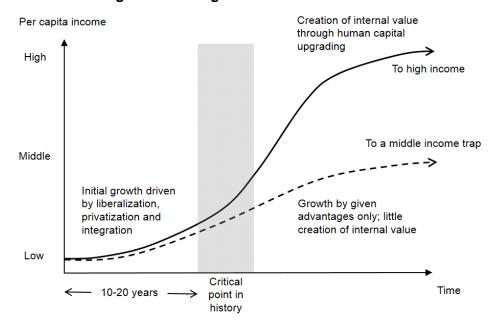


Figure 1. Divergence of Growth Paths

Third, given our definition, a trap may occur at any income and in any country when domestic value creation is limited. If given advantages are small relative to population, a country falls into a low income (poverty) trap. If the situation is reverse, citizens can enjoy good life without making any effort, which may be described as a high income trap. Meanwhile, most countries with average population and average advantages are likely to be trapped in the middle. Analytically, all these cases are similar except for their initial conditions. The critical issue is whether income is generated by effort or luck, and not what level it reaches.

### 3. The hypothesis

While the world continues to debate whether industrial policy of one kind or another is possible and/or desirable, we stand on the premise that the effectiveness of any policy, including industrial policy, is conditional on how it is designed and implemented. Our study starts with the observation that proficiency with which industrial policy is practiced varies significantly across countries, and that policy skills can be learned rather than eternally given for any government. From this perspective, it is pointless to ask whether any industrial measure—be it SME development, export promotion, or technology upgrading—is effective without specifying a country because success hinges on the acquired policy capability of each government. We also hold it self-evident that the private sector must be the main driver of economic growth, but that the state also has an important role of guiding and assisting private effort. These assumptions are the background for our main analysis below that compares the quality of industrial policy across countries.

The hypothesis presented in this paper is that the lack of quality in industrial policy is the main cause of a middle income trap. The corollary is that installation of high-quality policy that actively supports value creation by the private sector, beyond just freeing and opening markets, is required to escape the trap. Policy innovation must occur not so much in policy scope—because industrial policy menus are similar across emerging and developing economies—but in how effectively commonly practiced policies are executed. This does not mean that other factors such as history, geography, natural resources, and capital inflow are unimportant. These are important and affect growth but they do not critically determine the long-term growth trajectory of a country as policy quality does.

As noted above and illustrated in Figure 1, even a mediocre country starting from low income and low policy skills can grow rapidly by adopting a Washington Consensus policy package. In this early stage the quality of industrial policy does not really matter in attaining growth. But slowdown begins at some point—typically a decade or two later—which largely depends on the relative size of available advantages. This is a critical moment in the history of this country. If policy quality remains the same, growth will not pick up and the country will fall into a middle income trap. If policy innovation occurs, it will jump onto a path leading to high income backed by ever-improving

human capital. Experiences show that policy innovation at middle income is a difficult task in which few countries have succeeded. Among non-Western latecomer economies, only a handful rose to high income through domestic value creation—Japan, Singapore, Hong Kong, Taiwan, and Korea—while most others remain trapped at some levels.

To overcome the trap, there are three distinct policy areas that need improvement.

First, industrial policy in the narrow sense which generates and sustains the sources of growth must be activated. This is primary in the sense that growth slowdown cannot be reversed without improvement in this area.

Second, social problems caused by rapid growth must be dealt with. Income and asset inequalities that emerge across individuals, regions, and social groups are the most challenging among them. Environmental destruction, uncontrolled migration and urbanization, traffic and housing problems, cultural change, generation gaps, and a surge of materialism and corruption are also commonly observed. Importance of social policy in a high-growth period has long been stressed by various authors including Huntington and Nelson (1976), Murakami (1994), and Hara (2014, 2015). If left unattended, these problems will destabilize society and undermine growth.

Third, macroeconomic management must be upgraded under financial integration. In the past when a center country offered global financial stability or when capital transactions were restricted, or both, latecomer economies were largely guarded against financial shocks emanating from the rest of the world. In those days, inflation and debt crises were blamed on the nation's fiscal and monetary mismanagement. Now, all nations regardless of development stage or domestic policy stance are exposed to large swings in global assets, interest rates, and market sentiments. As McKinnon consistently warned, financial liberalization of latecomers must follow certain steps, and misguided bilateral trade and currency negotiations must be refrained to avoid calamity in a world with no anchor country or currency (McKinnon 1993, 1996, 2005, 2012; McKinnon & Ohno 1997). The Asian Financial Crisis of 1997-98, the Lehman Shock of 2008, the ongoing Euro Crisis, and many other global, regional, and local financial instabilities attest to increased external risks on our financially integrated planet. Decent domestic macroeconomic management is no longer enough.

The weights of these policy areas differ across countries that are trapped in middle income. For many, the main problem is inability to generate high growth. For other countries where high growth fails to bring benefits to all, social instability is the central issue. Still others lose fruits of growth by recurrent external financial crises. The rest of the paper discusses the first policy area only, namely, policy for producing growth.

### 4. Proactive industrial policy

What should be the content of industrial policy for revitalizing growth momentum? This important question was the topic of other works (Ohno 2013, VDF & NEU 2014), and space does not allow

full exposition here. But a brief discussion should be appropriate.

Even under WTO and deepened global and regional integration, industrial policy is not only possible but even more critical for latecomer countries wanting to catch up in income and technology (Cimoli, Dosi & Stiglitz 2009, p.542). There are a wide range of untried policy areas which do not violate any international rules such as vision-setting and strategy making, human resource development, enterprise capacity building, FDI marketing, logistic efficiency, financial access, product standards and safety, industrial clustering and networking, and countless others. Even if high tariffs, non-tariff barriers, and discrimination against foreign businesses are no longer permitted, remaining policy measures are so rich and numerous that developing country governments need not worry too much about the slightly modified policy space. The true cause of policy failure often lies in inability to use permitted policies fully and effectively.

Proactive industrial policy fit for the twenty-first century is different from any of the past developmental regimes, whether it is socialist planning, state-led heavy industry drive, infant industry protection, market-friendly or market-enhancing selective intervention, or the Washington Consensus formula. Today, industrial policy must simultaneously satisfy several conditions including (i) acceptance of globalization and markets; (ii) a strong state; (iii) retaining and mobilizing sufficient policy tools for latecomer industrialization; (iv) dynamic capacity development of both private players and government; (v) internalization of knowledge, skills, and technology as the top national goal and obsession; (vi) substantive (not superficial) public private partnership; and (vii) sharing of deep industrial knowledge between policy makers and businesses. For market fundamentalists these conditions may seem contradictory because they promote both markets and state power, but there is actually no conflict here. In the eyes of policy pragmatists, that is exactly how it should be because both are needed to cope with complex reality.

Apart from such obvious prerequisites as macroeconomic stability and infrastructure development, proactive industrial policy must focus on building private sector capabilities as its core objective. The policy menu for strengthening the private sector is globally well known and fairly standard. They cover, for example, legal and policy frameworks; industrial skills upgrading; enterprise support in management, marketing, and technology; financial access; strategic FDI attraction; FDI-local firm linkage formation; industrial clustering and networking; standards and testing; startup assistance; and technology and innovation<sup>1</sup>. In East Asia, there are additional popular measures such as *kaizen* (efficiency improvement at factories), *shindan* (SME management diagnosis and advice), decades-long support for engineering universities and technical colleges, linkage between training institutions and industrial labor needs, high-quality industrial parks, and strategic policy intervention to create a new industry from scratch.

<sup>&</sup>lt;sup>1</sup> Each policy action area can be further divided into sub-actions and detailed items. For a full list of policy actions actually available for industrial human and enterprise capacity building, see, for example, *The Guidebook for Using SME Support Policies* by Japan's SME Agency or *The White Paper on Small and Medium Enterprises in Taiwan* by Taiwan's SME Administration, both of which are regularly updated.

Clearly, a latecomer country cannot introduce all policies at once. Selectivity, simplification, and proper sequencing are therefore needed. Because proper policy design differs across countries, careful research and deliberation are needed to create the one most suitable for the home country. In addition to policy content, policy procedure and organization that produce effective actions must similarly be learned by adopting international best practices to the country context. For this purpose, customized and intensive policy dialogue with experienced foreign industrial experts is extremely useful, but the number of policy instructors equipped with broad and pragmatic industrial knowledge is limited.

# 5. Assessing policy quality

We propose to evaluate the quality of industrial policy by looking at the following ten sub-components: (i) industrial human resource; (ii) domestic enterprise development; (iii) business climate; (iv) power and logistics; (v) export promotion; (vi) strategic FDI marketing; (vii) industrial parks; (viii) supporting industries and FDI-local firm linkage; (ix) productivity, technology, and innovation; and (x) standards and testing. Because we look at industrial policy in the narrow sense, social and cross-cutting considerations such as greenness, gender equality, workers' rights, community empowerment, and so on, are not included in our examination. These worthy causes should be evaluated by other mechanisms. For each sub-component, ten common aspects as well as aspects specific to each sub-component are checked, and grades from zero (non-existent or worse) to five (excellent) are given (Table 1).

Regarding the economic impact of policy, it should be noted that industrial performance is jointly determined by private dynamism, policy quality, and *luck* (all other factors which are beyond the control of either businesses or government). This means that policy quality, though important, is only partly responsible for outcome, and its effectiveness should be assessed accordingly. The fact that there is no one-to-one correspondence between policy quality and industrial results complicates our investigation but does not negate it. Luck may matter greatly in the short run but policy impact should become more visible in the long run.

Assessment given below should be regarded as a pilot project produced under considerable budget and staff constraints. For this reason, the results should be interpreted with usual care though we doubt if fuller research will produce entirely different conclusions about individual countries. If additional resources become available, the work should be extended by including more countries, refining sub-components, and regularizing and systematizing data collection.

Table 1. Evaluation Criteria for Industrial Policy Sub-components

	Sub-component	Specific Aspects	Common aspects
<u> </u>	Industrial human resource	Science and technology engineering universities and colleges and technical and vocational education and training (TVET) in sufficient number that meets the nation's industrial human needs; raising popular mindset for quality, efficiency, and manufacturing pride.	(i) Policy ownership (ii) Vision & commitment of top leader(s) (iii) Policy drafting procedure
	Domestic enterprise development	Existence of clear goals, policy organizations, and coordination among many ministries and policy areas; effectiveness of individual measures covering support for management, marketing, technology, finance, IT, and networking; interlink and synergy among policies.	<ul><li>(iv) Authority &amp; capacity of policy organizations</li><li>(v) Mindset &amp; competency of implementing officials</li><li>(vi) Budgeting &amp; staffing</li></ul>
	Business climate	Identification of the nation's current status, and serious effort for improvement; transparency and reliability of laws and procedures; tax, accounting, and customs clearance; foreign currency and capital control; comparative business costs; effective public-private dialogue.	(vii) Inter-ministerial coordination (viii) Involvement of key non-official stakeholders (ix) Monitoring & evaluating mechanisms
	Power and logistics	Status of power supply irregularities and remedying actions; status and plans for transport infrastructure; efficiency of port, airport, dryport, and bonded warehouse operation; export, import, and border-crossing procedure; logistic service quality and competition; IT use.	(x) Impact on the real economy
7	Export promotion	Appropriate export targets; integrated export promotion mobilizing many measures and ministries rather than temporary and ad hoc actions; a regular and effective monitoring and problem-solving forum; support and use of policy by targeted domestic exporting firms.	
	Strategic FDI marketing	Full understanding of foreign investors' needs; effective one-stop investor service and followup; appropriate incentives; selectivity proper to development stage; quality of promotional information and presentation; actual results in project registration and implementation.	
	Industrial parks	Full understanding of investors' needs; proper division of labor between government and private sector in designing, building, and operating industrial parks; provision of necessary infrastructure and soft support; customer satisfaction and arrival of targeted foreign firms.	
	Supporting industries and FDI-local firm linkage	Clear recognition of importance of supporting industries and services in upgrading domestic capability; effective database, match-making, incentives, and follow-up measures; close interaction with targeted domestic and FDI firms; actual growth of supporting industries.	
- ·-	Productivity, technology, and innovation	Proper targeting of needed technology and innovation for the nation; suitable promotion measures in close cooperation with the private sector without coersion; protection of intellectual property rights; effective research and supporting institutions and mechanisms.	
	Standards and testing	Existence of organizations, laws and regulations, and human and physical capital for Standards and testing ensuring product quality, safety, environment, labor conditions, etc.; sufficient testing facilities; actual effective use of standards and testing facilities by the private sector.	

Quality of industrial policy partly overlaps but is not identical with national competitiveness or business climate captured by the Global Competitiveness Index of the World Economic Forum, the Doing Business Report of the World Bank, and the like. We gauge a nation's policy capacity in assisting private sector growth rather than current competitiveness or ease of doing business. Our scope is also much wider than just how smoothly businesses can be set up and run. Thus, our country evaluation should in general produce different results from existing national scorecards.

Assessment of industrial policy quality is given in Table 2 for selected Asian and African countries for which we have sufficient knowledge through research, visits, and interviews.

Four points are worthy of note even in this small sample.

First, there is a huge gap in industrial policy quality among governments from excellent to poor. Any commercial or official traveler who covers a wide ground should be aware of this fact, but our policy evaluation confirms and quantifies this informal awareness. Looking at individual countries, not all Asian governments have high scores in comparison with some proactive African governments such as Mauritius, Ethiopia, and Rwanda.

Second, industrial policy quality and per capita income are positively correlated. Within our limited sample of 13 countries in Table 2, the coefficient of correlation is 0.748. It should immediately be noted that correlation does not prove causality. Moreover, industrial policy quality is a concept more associated with growth potential than the current level of income. Nevertheless, positive correlation is at least suggestive, and consistent with the hypothesis that the lack of quality in industrial policy is the main cause of a middle income trap.

Third, within each country, marks given to various policy sub-components are highly correlated. If one policy is bad, others are likely to be also bad. There is a common policy culture within any government that largely determines the effectiveness of all policy measures, with quality variation among them usually small and accidental. The existence of the same policy procedure and similar mindsets of policy makers and implementers in each country can be cited as the background reason for this intra-government uniformity.

Fourth, no clear relation is detected between policy quality and the possession of natural resources. Resource-rich countries such as Malaysia and Indonesia do not show any outstanding quality in industrial policy. At the same time, countries that have excellent industrial policy in our sample, as well as more generally, are those poorly endowed with natural resources<sup>2</sup>. The result is consistent with the Curse of Natural Resource. While heavy reliance on natural resources is known to impede industrialization through economic and political channels, our study suggests that the lack of policy quality may be an additional reason for slow industrialization in resource-rich countries.

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<sup>&</sup>lt;sup>2</sup> However, we should be mindful of the winners' bias in judging the Curse of Natural Resources. Countries that succeed in industrialization look relatively resource-poor *ex post facto* even if they initially had the same degree of natural resource dependence as others. To remove this bias, natural resource dependence of each country should be compared at the starting point and not after some have succeeded in industrialization.

Table 2. International Comparsion of Industrial Policy Quality

					Evaluatio	n of industrial	Evaluation of industrial policy sub-components	nponents						For refe	For reference only
	Date of research	Industrial human resource	Domestic enterprise developmen t	Business climate	Power and logistics	Export	Strategic FDI marketing	Industrial parks	Supporting industries & FDLocal firm linkage	Productivity, technology & innovation	Standards and testing	Average	Grade	Per capita income (WB, 2013, USD)	Doing Business ranking (WB, 2014, among 189 entries)
Singapore	AugSep. 2010	5	4	5	5	4	5	5	4	5	5	4.7	A+	\$55,183	-
Japan	Continuous	5	2	4	5	4	33	3	÷	4	2	4.2	А	\$46,330	29
Korea	Nov. 2010	5	4	4	9	2	3	4		4	9	4.3	А	\$25,977	5
Taiwan	Mar. 2011	5	2	5	9	3	4	2	÷	5	9	4.7	¥+	\$22,597	19
Malaysia	2006, 2010, 2013	3	4	4	5	4	5	4	-	4	4	3.8	В	\$10,538	18
Mauritius	Oct. 2012	4	4	4	4	4	Ŋ	4	က	4	က	3.9	Ф	\$9,478	28
Thailand	2005, 2009, 2013, 2015	3	2	4	4	3	4	4	4	2	4	3.4	В	\$5,779	26
Indonesia	Jun. 2014	2	2	2	2	2	က	_	-	-	2	1.8	Q	\$3,475	114
Vietnam	Continuous since 1995	1.5	1.8	2.0	2.8	1.6	1.7	2.2	1.5	1.4	1.5	1.8	D	\$1,910	78
India	Sep. 2012	1	1	1	2	3	1	2	1	1	1	1.4	D	\$1,498	142
Cambodia	May 2015	0	7	4	3	1	2	3	0	0	1	1.5	D	\$950	135
Rwanda	Aug. 2014	7	7	4	က	က	4	4	7	2	-	2.7	O	\$639	46
Ethiopia	Continuous since 2008	3.0	1.9	1.7	3.1	3.9	4.3	4.4	2.0	3.2	2.0	3.0	В	\$505	132

Notes:

<sup>1/</sup> Evaluation: 0 (non-existent or worse), 1 (little), 2 (some), 3 (moderate), 4 (good), 5 (excellent). For Vietnam and Ethiopia, for which detailed data are available, points are given to the first decimal point.

<sup>2/</sup> Letter grades: A+ (4.5 or above), A ( <4.5), B (<4), C (<3), D (<2), F (<1).

<sup>3/</sup> Evaluation of policy prepared and implemented by national government only; results obtained by private effort, international cooperation, or external conditions are excluded.

<sup>4/</sup> it is somewhat difficult to evaluate the policy of a mature economy, such as Japan and Korea, with a large number of industrial policy measures in the past and at present. Grades may differ depending on which measures are evaluated and how much weight is given to past achievements relative to present policies.

### 6. A note on mindset change

Before concluding, let us take note of a different group of policies which are often adopted by governments with relatively high capability. As argued earlier, industrial results depend jointly on private dynamism, policy quality, and luck. Good industrial policy alone may not stimulate industrial growth if the nation's private sector is inactive, interested in short-term gains only, or averse to risk taking and technology learning. In reality, business culture differs significantly across nations and ethnicities despite the claim of market fundamentalists that all economic men and women are created equal. In Malaysia, Former Prime Minister Mahathir (1970) once lamented the lack of economic dynamism among native Malays in comparison with Chinese immigrants. In Ethiopia, Former Prime Minister Meles asked a visiting East Asian delegation, "Why do my people pour money into real estate speculation instead of building factories?" (Ohno, 2013, p.40).

The standard policy to cope with this problem is initiation of a national movement of one sort or another, which is at a higher level than the policy sub-components we examined in Tables 1 and 2 because it changes the nature of the private sector rather than taking it as given. National movements aim to elevate productivity and competitiveness by instilling the sprit of activism and cooperation into the public. Successful examples include Japan's Rural Life Improvement Movement (1948-) and Quality and Productivity Movement at factories (1950s-), Korea's Saemaul (new village) Movement (1970s-), Singapore's Productivity Movement (1980s-), and Malaysia's Look East Policy (1980s-)<sup>3</sup>. But not all cases produce results. A good start was not followed up with political commitment or business support in the productivity movements of Mauritius, Botswana, and Burkina Faso around the 1990s, all of which learned from and were assisted by Japan or Singapore. More complete failures are found in the forced production drives at collective farms and state-owned factories in the past socialist bloc. They failed because the communist ideology totally ignored motives and incentives for peasants and workers.

These historical cases teach us that, to be successful, national movements require (i) strong personal commitment of the top leader; (ii) top-down instruction for grassroots participation; (iii) performance-based rewards and recognition; (iv) supporting institutions; (v) authorized and well-designed training programs; and (vi) concentrated nationwide effort for a long time, usually up to a decade or more. Top-down instruction for grassroots participation (item (ii)) may sound contradictory, but contradiction will evaporate if the movement is so crafted as to gradually attract the genuine interest of participants, instead of reluctant obedience, because they see concrete benefits to their income and life. While elements of coercion cannot be entirely eliminated in national movements, they should be regarded as success if intended economic results are

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<sup>&</sup>lt;sup>3</sup> The starting years of national movements are easy to identify but the end point is usually more difficult to pin down. This is because successful movements undergo different stages and eventually become part of national culture. Impacts of the national movements listed here are still present in respective countries.

realized at the end.

A national movement to transform popular mindset is not included in our policy evaluation partly because not all countries practice it and partly because it calls for more complex and long-term assessment. But there is no reason to continue to exclude it from policy evaluation in the future.

## 7. Concluding remarks

This paper has proposed a hypothesis that the lack of quality in industrial policy is the main cause of a middle income trap, a situation in which a nation is unable to produce economic value beyond what is delivered by given advantages. A pilot project for policy evaluation is presented and initial results are reported. While the method can surely be strengthened in terms of number of countries and assessment criteria, even the initial results are sufficient to confirm enormous difference in industrial policy quality among nations, correlation between policy quality and income achievement, relative uniformity of policy quality within any government, and possible irrelevance of richness in natural resources for industrialization.

Our argument highlighted policy as the key determinant of the long-term economic fate of a nation. Improving industrial policy requires not just discussion of what needs to be done but also, more fundamentally, a reform of policy methodology in which proper policy sub-components must be identified for each country, and appropriate design, implementation, and monitoring of policy measures should be learned and practiced.

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