

Industrial Policy Direction of Ethiopia: Suggestions for the Next Five Years*

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This paper contains ideas and issues that may be useful in drafting the trade and industrial chapter of the *Plan for Accelerated and Sustained Development to End Poverty* (PASDEP) II (2010/11-2014/15), a national planning document currently under preparation in Ethiopia. This paper is a sequel to the previous paper which discussed cross-cutting issues and organizational arrangements for industrial policy making (Ohno and Ohno, 2009). The present paper is more sharply focused on the expected content of the aforementioned chapter of PASDEP II.

In recent years the Ethiopian Government has made significant effort to enhance the policy content of the trade and industry sector. The *Sustainable Development and Poverty Reduction Program* (SDPRP) (2002/03-2004/05) did not have an independent chapter on trade and industry comparable to those of agricultural development, food security, education, or health. Issues on trade and industry were dealt with lightly in a cross-cutting chapter in less than four pages¹. Subsequently, with the adoption of the Industrial Development Strategy (IDS, 2002), PASDEP I had an independent chapter for trade and industrial development which discussed more extensively (over 12 pages) the vision and principles of IDS, targets for selected strategic sub-sectors, integration of Ethiopia's trade sector, export development, and private sector development. Nevertheless, there is a need to further upgrade the policy content of the trade and industry sector during the PASDEP II period. This is partly because the Ethiopian Government plans to enlarge the policy scope from a few export-oriented industries to the inclusion of import substitution industries which have high domestic demand, and also because it is strengthening policy measures and institutions for industrial support. It is hoped that this paper will contribute to the Ministry of Trade and Industry (MOTI)'s ongoing drafting work of the trade and industry chapter of PASDEP II, by sharing our ideas and concrete suggestions for Ethiopia's industrial policy direction in the next five years.

The trade and industrial chapter of PASDEP II should first review recent industrial performance, a topic discussed in Section 1 below. It should then clearly set policy direction for the next five years. This

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¹ See VIII Private Sector and Export Development of SDPRP, especially discussions on Investment Climate (8.1), Developing the Manufacturing Sector (8.7), and institutions (8.9, which refers to public-private consultative forum, chambers and sectoral associations, and other institutions giving services to the private sector).

important issue is discussed in Sections 2, 3 and 4. Priority sectors and priority issues are considered in Sections 5 and 6. Additional topics of numerical targets and policy documents and organization are contained in Sections 7 and 8. The last section is the conclusion.

1. Recent performance

During the implementation period of PASDEP I (2005/06-2009/10), overall performance of industrial growth and exports were initially very positive, especially in the first three years, but later was marred by the emergence of negative effects of an overheated economy and global financial crisis—inflation, balance of payments pressure, and an acute shortage of foreign exchange—which collectively put a significant damper on the industrial performance in the last two years of PASDEP I. The drafting of PASDEP II must start with the reflection of this turn of events and its implications for industrial policy formulation.

The causes of these macroeconomic difficulties will surely be analyzed by the Ministry of Finance and Economic Development (MOFED) in the first few chapters of PASDEP II. The recent macroeconomic overheating may be attributed variously and with different weights to fiscal and monetary policies, inflows of external funds, shocks transmitted from global commodity inflation and global financial crisis, weather conditions, speculation, hoarding, and so on. The assessment of these causes is not the responsibility of MOTI, and the topic does not have to be dealt with in the trade and industry chapter of PASDEP II. However, the *consequences* of macroeconomic instability do have important bearings on the future conduct of industrial policy.

The recent decline in industrial momentum cannot be blamed solely or even mainly on the low quality of industrial policy. Unlike the health and education sectors and infrastructure construction whose progress largely depends on the proper management and adequate funding by the government (supplemented by foreign sources), the performance of productive sectors such as industry and agriculture, in which production is carried out by private agents under shifting conditions, is determined by a combination of private effort, industrial policy, and external circumstances. For illustration, let y_t be industrial performance, x_t be private effort, z_t be industrial policy and ε_t be unpredictable shocks due to external circumstances such as natural, political and macroeconomic events, then:

$$y_t = \alpha x_t + \beta z_t + \varepsilon_t$$

where α and β are coefficients that translate private effort and industrial policy into performance. Alternative functional forms, time lags, and interaction among variables may be imposed on this model. However, the key point is that the rise and fall of industrial performance cannot be traced to the movement of the policy variable alone. In fact, short-term fluctuations in y_t are often dominated by external shocks ε_t , while private effort x_t and industrial policy z_t strongly influence the long-term trend of y_t .

This means that industrial policy should not be overly affected by short-term cyclical events but should be designed and evaluated for its contribution to long-term industrial achievements smoothed over the ups and downs of the macroeconomy. For this reason, Ethiopia's recent macroeconomic difficulty by itself does not give a compelling reason to change its industrial policy². In fact, the evolution of Ethiopia's industrial policy seems generally consistent with the situations that the country must cope with, which include current levels of policy capability and private dynamism. If industrial policy is to be revised, we must cite other structural reasons (see Section 3 below). Similarly, over- and under-achievement of numerical targets in the industrial sector, such as output, export and investment, must be interpreted with care. Neither should be the cause of unsubstantiated optimism or pessimism. To properly assess industrial policy in the PASDEP I period, we must look for signs of structural changes ($\alpha x_t + \beta z_t$) rather than simply reporting actual numbers which contain large uncontrollable shocks (ε_t).

In this respect, there is little evidence that Ethiopian industries have made strong progress in quality improvement, international competitiveness or structural transformation in the last several years despite all-out policy support to the selected export industries. The manufacturing share of GDP remains stagnant in recent years and the export structure continues to be dominated by unfinished commodities. It is true that leather and flower exports rose rapidly from small bases. These were bright spots in the achievements of PASDEP I. But these results, however loadable, fell short of the high expectations of the leaders of the Ethiopian Government³. Furthermore, many of the good industrial results may have been due to external circumstances (positive ε_t) rather than effective policy or emerging private dynamism ($\alpha x_t + \beta z_t$). Scientific reviews of export promotion, which examine both costs and benefits of policy support, should be conducted in preparation for industrial policy formulation in the next five years⁴.

2. Proactive industrial policy

The basic tenets of Ethiopian industrial policy are given by Agricultural Development Led Industrialization (ADLI) and IDS (2002), which were discussed and analyzed by Ohno (2009b) in our bilateral policy dialogue. As all Ethiopian government officials know ADLI and IDS well, there is no need to repeat their contents in the trade and industry chapter of PASDEP II. What that chapter should do instead is to present the orientation, the expanding scope, and the medium-term vision of industrial policy for the period up to

² We do not entirely agree with the view that macroeconomic difficulties such as the one Ethiopia is experiencing mainly come from the structural weaknesses or the lack of reform and liberalization of the real sector. Macroeconomic problems should be countered mainly by macroeconomic measures and not by industrial policy. We would at the same time like to stress that the existence of a competitive and well-diversified manufacturing sector can mitigate the impact of global shocks. In that sense, macroeconomic crisis may be a good reason to accelerate and enhance the existing industrial policy.

³ The UNIDO/MOTI technical paper of May 2007 which examined the Ethiopian shoe manufacturing sector pointed out a number of problems to be overcome for this sector to become internationally competitive, including the need to improve the product design and quality.

⁴ Such studies were suggested by Section 2 of Ohno and Ohno (2009) in September 2009. JICA is currently exploring possibilities of review studies by Ethiopian researchers on the effectiveness of export promotion in the recent past.

2014/15 in order to eventually realize the long-term goals prescribed in ADLI and IDS.

A notable feature of Ethiopia's industrial development is that the Government is pursuing an industrial policy that is private sector-driven but with strong state guidance and directives as stipulated in IDS. This policy orientation is different from any of the well-known policy regimes such as socialist planning and state production (USSR or China in the past), laissez-faire and rapid integration under small government (Hong Kong), developmental states with infant industry promotion (Korea, Taiwan, and Malaysia), FDI-led industrialization (Thailand, Malaysia, and Vietnam), or liberalization, privatization and integration advocated by the Washington Consensus organizations (IMF and the World Bank).

Nevertheless, the developmental path that Ethiopia is following seems highly relevant and applicable to the developing world in the 21st century. It is for this reason that Ethiopia's policy orientation, repeated by its leaders and stated in IDS, should be given a proper name and defined more precisely for visibility and international attention. This will also help to avoid unnecessary misunderstanding or criticism arising from confusing this policy orientation with past developmental regimes.

We propose to use the term *proactive industrial policy* to describe what Ethiopia aims to achieve⁵. This is a strategy adopted by a latecomer country to seek a proper balance between the state and the market through continuous learning to overcome initially weak policy capability and under strong commitment to international integration. Its key components are acceptance of the market mechanism and globalization, dynamic learning by both government and the private sector, and complex and ever-changing interaction between the two sectors. More precisely, proactive industry policy must satisfy all of the conditions below:

(i) *Market-driven development under globalization*—production, investment, trade and other economic activities must be carried out primarily by the private sector under an open competitive environment generated by the market mechanism and the globalization process. Privatization, WTO rules, regional integration, and FTAs are to be positively embraced. State-owned production is not adopted except in cases where no private agents have yet emerged to take over the state role.

(ii) *A strong state*—the state assumes a strong and active role in guiding and supporting development despite the fact that all productive activities are in principle to be conducted by the private sector. The state will mobilize necessary policies to reward value creation, punish rent seeking, and lead the private sector toward a consistent national vision. A great transformation of political and economic systems must be orchestrated by the state because the market cannot initiate such a transformation.

⁵ In Section 1 of our previous paper (Ohno and Ohno, 2009), industrial policy was divided into three types: (i) improving business climate generally and for all; (ii) responding quickly to the needs of the private sector; and (iii) the creation of dynamic comparative advantage in which proactive policy makers generate new industrial strengths and guide investors towards new activities under close coordination with private partners but without necessarily waiting for their move. The current section expands on the last type.

(iii) *Retaining sufficient policy instruments for latecomer industrialization*—although globalization is willingly accepted, this does not mean that all industrial policy instruments must be instantly given up and replaced by market pressure. Rather, this means that the policy toolbox for the 21st century is different from those of Japan, Taiwan or Korea in the past. It also implies that enlargement of the market sphere must be in proper steps to ensure the availability of necessary policy instruments, and that international pressure to open up must be consistent in scope and speed with the development strategy of the latecomer country.

(iv) *Dynamic capacity development*—improving policy capability and private dynamism, both of which are often weak in early stages of development, must be the central component in industrial policy formulation. Policy must identify immediate and concrete goals and aim at enhancing existing or potential strengths of the country rather than improving governance or capacity generally without specific goals. The policy scope and policy measures should be gradually expanded in accordance with the enhancement of policy capability and private dynamism⁶.

(v) *Internalizing skills and technology*—in the private sector, the principal method of attaining industrialization must be internalization of skills and technology embodied in the human capital of domestic citizens. This must constitute by far the most important part of industrial policy goals and measures. Resource extraction, foreign direct investment (FDI), Official Development Assistance (ODA), and ecological and geographic advantages are also important, but they must be given secondary positions in support of skill and technology development rather than themselves becoming main policy goals or measures.

(vi) *Effective public-private partnership (PPP)*—when a strong state guides the private sector, there is a risk of market distortion and suppression of entrepreneurship which leads to economic stagnation. To avoid this risk, proactive industrial policy must always be accompanied by effective cooperation between the government and the private sector. This cooperation must be *in substance* based on mutual trust and active exchange of information and views rather than just formal one of hosting dialogues, conducting BOT projects, or establishing PPP mechanisms. Only when this cooperation is truly and firmly in place, the state can understand the (often diverse) intentions of private firms, and visions and strategies initiated by the state will be strongly supported by the private sector. Although the state leads, the direction it imposes is exactly what private firms want or something they admit to be desirable after the government first points out its merits.

(vii) *Deep knowledge of the industry*—in order to avoid policy misjudgment and political capture, another important requirement for the government is accumulation of sufficient knowledge of the industries in which it intends to intervene. Leaders and practitioners of the government must go extra miles to acquire the practical knowledge of the industry to make intelligent and well-informed decisions. Knowledge can initially be outsourced from private experts, academicians or donors, but unless it is digested by policy makers themselves the quality of industrial policy cannot be assured.

Industrial policy formulation described above is very different from the two extreme developmental models: socialist planning in which the state dominates and private activities are suppressed and the

⁶ Dynamic capacity development was the main topic of our paper (Ohno and Ohno, 2008) presented at the Initiative for Policy Dialogue conference in Addis Ababa in July 2008.

Washington Consensus doctrine in which the state recedes to the background and markets are given a full sway. Proactive industry policy aims to strike a delicate and ever-changing balance between state guidance and market orientation, between commitment to globalization and the retaining of sufficient policy tools, or between strong leadership and the need to listen to private firms carefully. As such, this policy is far more difficult to implement than simply letting the market loose or planning everything by the state machinery. A comparison of the basic approach (Washington Consensus) and the proactive approach is given below.

Table 1. A Comparison of Two Approaches

	Basic Approach	Proactive Approach
Market-driven development under globalization	Yes	Yes
Retaining sufficient policy tools for latecomer industrialization	?	Yes
Dynamic capacity development	?	Yes
Internalizing skills and technology	Yes	Yes
Effective public private partnership	Yes	Yes
Deep knowledge of the industry	?	Yes
A strong state	?	Yes

Simple-minded policy makers may consider this to be confusing and contradictory, but one needs complex policy formulation to deal with complex reality. Ambivalent orientation in proactive industrial policy is not a problem but in fact its greatest strength. It forces policy makers to be always pragmatic, responsive and alert to changing circumstances rather than turning a blind eye to reality for the sake of ideological integrity.

Proactive industrial policy shuns abstract debates such as whether the state should intervene in the market or whether globalization is beneficial for latecomer countries. Instead, it works at much more concrete levels of policy formulation where finding a proper mix of conflicting forces in each case is the main objective and therefore one-size-fits-all solutions without reference to specificities is hardly meaningful. As a result, information requirement for proactive industrial policy is far greater than other policy regimes. Information must be constantly gathered and updated through studies and reports, visits and workshops, contact with the private sector and academics, and international assistance.

Another important feature of proactive industrial policy is its dynamic perspective. Starting from an inefficient government and a fragile private sector, it stresses learning by both sectors as the main driver of the industrialization process. This implies that the policy mix must change not only in response to shifting circumstances but also because of new capabilities acquired through effort and experience. Proactive industrial policy must grow continuously; it cannot exist under static policies and rigid organizations.

Above is the restatement of what we believe is the essence of the Ethiopian industrial policy orientation. Although the intention of the Ethiopian Government is clear to anyone who has read its key documents and conversed with its leaders, we think it important to extract its components, detach them from the immediate Ethiopian context, and apply them more universally to assess and compare policies of other developing countries. Only through this process a new developmental model can be constructed.

Stated this way, it becomes clear that policies adopted by the Japanese Ministry of International Trade and Industry (MITI) in the 1950s and 60s, and what Malaysia's Second Industrial Master Plan 1996-2005 intended to achieve, can also be classified as proactive industrial policy although in circumstances entirely different from the Ethiopian ones⁷. We recommend that this policy orientation be clearly stated as a model with broad applicability in the coming PASDEP or any other appropriate document.

3. Expansion of policy space and measures

Another important statement that must be made in the trade and industrial chapter of PASDEP II is the expansion of policy space and measures to promote industrial development. Ethiopia's industrial policy is shifting and expanding not only because of changing circumstances but also the country has improved or is improving its policy capability. These policy shifts and their reasons should be made clear in PASDEP II.

Improvement of industrial policy capability of the Ethiopian Government is evident from the many policy actions it has taken recently as well as the statements of its leaders. This is not to say that policy capability is already high; Ethiopia needs to learn much more to become an effective industrializing country. However, it must be admitted that the country has vigorously learned the basics of industrial policy formulation in a relatively short period and built enough institutional foundations to tackle the next round of challenges.

Ethiopia had long been plagued by problems such as unfavorable weather, famine, internal political competition, and regional conflicts. By around 2002, however, most of these problems were significantly ameliorated, if not eliminated, and the country was ready to launch a serious development strategy to realize the vision of ADLI. It was at that time that IDS was drafted and SDPRP (2002/03-2004/05), the Ethiopian version of the poverty reduction strategy paper, was initiated. The Ethiopian achievements since then in the field of industrial policy formulation can be summarized as follows:

- (i) *Policy documentation*—in addition to IDS and SDPRP mentioned above, the master plans of leather and leather products, textile and garment, food processing, basic metal and engineering, sugar, etc. were completed or drafted with various degrees of sophistication. The three-year plan of

⁷ We may even add that emphasis on constant change and ever-becoming, immediate experience of concrete reality, and rejection of ideological fixation, which run through the idea of proactive industrial policy, are consistent with ancient Eastern traditions such as Zen Buddhism and Taoism.

SDPRP was followed by the five-year plan of PASDEP I.

(ii) *Selective export promotion*—priority sectors were declared, and meat, leather and leather products, textile and garment, and food processing were given highest attention and generous incentives. Fresh flower exports were later added to the priority list and given similar support.

(iii) *Export steering committee*—an export steering committee based on the Korean model was established and its monthly meetings chaired by the prime minister functioned as a high-level instrument to monitor export promotion and solve any problems.

(iv) *Industrial policy toolkit*—common techniques such as benchmarking, scaling up of pilot projects, business matching, institutional twinning, public private dialogue (see below), etc. have been learned and tried. Among them, benchmarking has become a very popular tool for comparing performance and setting targets for Ethiopian manufacturing firms. The concept of *kaizen* was recently added to the toolkit.

(v) *High-level TVET*—to enhance engineering capability, the Government has launched a fast-track program to build a number of science and technology universities all over the country and train their teaching and research staff.

(vi) *Development centers and training institutes*—as a focal point to strengthen priority sectors and receive assistance, a number of development centers and training institutes were established in leather and leather products, textile and garment, metal products, and so on.

(vii) *Public-private dialogue*—a comprehensive system of public-private dialogue at the national, regional and local levels is under construction, and industrial and business associations to promote business activities and communicate with official bodies are being set up and enhanced.

(viii) *Public administration reform*—virtually all ministries and agencies of the Government have gone through the restructuring process for quick response and waste elimination by the application of BPR, a technique normally used for business companies.

(ix) *Infrastructure*—transport and power, the two infrastructure services most vital for industrial promotion, are given high priority.

(x) *Strategic mobilization of ODA, FDI and academics*—in all of the above activities, the Ethiopian Government has approached bilateral donors, multilateral organizations, foreign investors and foreign experts strategically to maximize and accelerate their contribution to the national development vision.

Based on these achievements in policy capability building, the Ethiopian Government should now expand its policy space and measures in the following ways.

First, the list of priority sectors should be broadened from a few export-oriented industries to include a

number of import substitution industries which have high domestic demand (and therefore high impact on reducing balance of payments pressure) and whose technologies are relatively easy to learn. The Ethiopian Government has tentatively identified steel and metal processing, cement, glass, chemicals (consumer detergents) and pharmaceuticals (popular medicine) as candidates. But a more detailed list of newly promoted industries must be constructed with careful studies and clear selection criteria.

Second, policy measures must also be expanded. In the PASDEP I period, greatest emphasis was placed on monthly export performance and provision of incentives to attain that goal. Incentives are one important element of industrial policy but other measures which improve skills and technology more directly or manage market failures and instabilities (such as excess competition, asset bubbles, speculation, short-terminism, environmental destruction, sub-standard quality, dumping and cheap imports, global business cycles, intellectual property infringements, etc.) should be added and enhanced. Over time, the latter should become dominant to give depth and width to industrial policy while the relative weights of incentives and export monitoring should be reduced. As noted above, Ethiopia has already started to move in that direction. This movement should be accelerated in the next PASDEP period.

Third, time limits and the graduation rule should be introduced. As argued in Section 3 of Ohno and Ohno (2009), industrial promotion must always be temporary and should be terminated when the purpose is achieved or when the targeted industry fails to grow. In the very early stage of industrialization (PASDEP I), the graduation clause was unnecessary because industrial promotion was just started and no industry had grown enough to warrant graduation. In the future, however, serious assessment of the export-oriented industries which have enjoyed generous incentives and the import substituting industries earmarked for promotion is highly desirable. Even if it turns out that no termination of policy support is needed during the PASDEP II period, proclamation of time limits and the graduation rule *in advance* is essential for avoiding policy misjudgment and political capture.

In this connection, it is important to build up policy capability and analytical method to be able to routinely evaluate the costs and benefits of any promoted industry from the perspective of both static and dynamic policy impacts. Moreover, promotion measures should be available to all eligible enterprises until the time limit of promotion expires without asking whether they are early innovators or latecomer copycats because such discrimination is both unfair and operationally impractical⁸.

With regards to proactive industrial policy mentioned above, this can be restated as follows. The capability of government must be strengthened as the policy scope is expanded from (1) to (3) in Table 2 below. Since import substitution entails increased risks of policy misjudgment and political capture, more attention must be given to (i) time limits of promotion and the graduation rule, (ii) competitiveness and value creation, (iii)

⁸ This is a negation of Prof. Rodrik's "pioneers only" rule. For more argument on this see Ohno and Ohno (2009, pp.8-9).

clear selection criteria for priority sectors, and (iv) master plans and action plans with an effective implementation mechanism.

Table 2. Two Approaches with Export Promotion and Import Substitution

	Basic Approach	Proactive Approach
Export Promotion	(1) Liberalize, privatize, open up, level playing field	(2) Policy skill and in-depth industrial knowledge required
Import Substitution	(1) (Same as above)	(3) Very high policy skill and in-depth industrial knowledge required

4. Internalizing skills and technology

We would like to propose that the most important thing that Ethiopian industries should achieve in the next five years should be as follows.

Medium-term industrial vision: *internalization and scaling up of skills, technology, and other capabilities that support the competitiveness and value creation of the manufacturing sector.*

Ethiopia should broaden its operational policy scope from the current one centered on export target setting to skill-intensive industrialization that highlights competitiveness and internal value creation. This should apply to both export-oriented industries and import-substituting industries.

Domestic capabilities of both the private sector and the policy making mechanism should be strengthened. For this purpose, appropriate targets, both numerical and qualitative, should be agreed on building these capabilities (however, also see Section 7 for the caveats in setting numerical targets), necessary programs and institutions must be launched or enhanced, master plans and action plans must be drafted for this purpose (Section 8), and implementation should be followed up with an effective monitoring mechanism. Success must be scaled up by a well-established dissemination procedure across sectors and regions, and ODA and foreign enterprises must be mobilized strategically.

In this regard, the Ethiopian Government has already identified skills and technology as the main pillar of industrialization, and policy efforts to enhance them were already started and certain initial results have been gained in the first PASDEP period. As explained above, the Government has come to use many policy tools such as benchmarking and BPR, building technology universities at full speed, establishment of the Metal Products Development Center, the Leather and Leather Product Technology Institute and the Textile and Apparel Institute, and requirement that the ODA projects must be accompanied by staff training and maximum local procurement. These laudable efforts should continue and be further strengthened, along with the expansion of industrial policy space. Our suggestion is to clearly declare this policy orientation in

PASDEP II and further develop and adjust it (where necessary) on the basis of initial attainments.

5. Priority sectors

As argued in Section 3, it is important to clearly state the new (and continuing) priority sectors for the next five years in the trade and industry chapter of PASDEP II. Although IDS listed five priority sectors (textile and garment; meat, leather and leather products; agro-processing; construction; micro and small scale enterprises), Ethiopia may modify this list in response to the outcome of past promotion, rising policy capability or changing domestic and international situations. For each priority sector, targets and policy orientation for the PASDEP II period should be spelled out.

The following export-oriented industries can continue to be supported in the next five years:

- Leather and leather products
- Agro-processing
- Textile and garment
- Floriculture

However, there should be studies to review the performance of these industries in response to policy support and evaluate the static and dynamic costs and benefits of policy support (especially for leather and leather products, sugar, garment, and floriculture). The amount of incentives received also differed across these industries. These sectoral studies will inform the policy makers as to how intensively and in what form policy support should be continued for each of these industries. For agro-processing, the concrete mix of targeted crops or products should be re-examined (including performance review on the sugar industry).

Duration of additional policy support is also in question. If the industry is considered to have grown sufficiently or failed to grow despite generous support, policy support should be terminated. It is premature to end support to any of these export-oriented industries at present or perhaps even in the next five years. But the conditions of graduation can be generally stated in advance because promotion measures cannot be provided endlessly. Even if the proposed sectoral studies cannot be completed by the time PASDEP II is approved, MOTI should continue to adjust its promotion measures for these industries in the course of implementing the trade and industry five-year development plan.

The following import substitution industries may be added to the priority sector list:

- Steel
- Metal processing
- Cement
- Glass
- Consumer soap and detergent (“chemicals”)
- Popular medicine (“pharmaceuticals”)
- Other

We are not recommending to designate all of these as priority sectors. This is a tentative list to be finalized after more information is gathered, sufficient discussion is held among all stakeholders, and policy makers become confident about their decision. For each candidate industry, a preliminary feasibility study should be conducted. Based on its result, the Ethiopian Government should determine whether the industry deserves policy support. If the answer is affirmative, a full-fledged master plan with detailed action plans should be drafted. Special attention must be paid to sharing enough technical and market information about the targeted industry among key decision makers, and establishing mechanisms to prevent policy misjudgment and political capture which are the two common risks of import substitution (Ohno and Ohno, 2009, Section 4). Given the time needed to build new policy capability and receive external assistance, the drafting of master plans for import substitution industries should proceed in realistic steps, with one or two industries at first, to be accelerated to cover all industries in the medium to long run. It is desirable if all master plans are completed by the end of the PASDEP II period, but that should not be a rigid requirement. Building true policy capability is more important than speedy drafting of all master plans with low quality.

Due to time constraint and lack of information, MOTI may not be able to adequately specify concrete targets and policy measures for all of the priority industries in the drafting period of PASDEP II. With currently available data, MOTI should do its best in setting targets and leave the task of giving more details and making adjustments to the five-year industrial plan and sectoral master plans to follow.

6. Priority issues

In the *PASDEP Annual Progress Report 2007/08*, progress is reported in the following issues related to trade and industry (also see Table 2 above):

- Privatization
- WTO accession process
- Negotiation for Economic Partnership Agreement
- Export performance

However, grounds covered by these topics are narrower than those expected from the very important role given to industrialization in the ADLI vision or proactive industrial policy proposed in the present paper. In the next PASDEP, we advise that issues that are closely related to the enhancement of competitiveness, industrial human resource, logistic efficiency, and industrial linkage and structure—these are in our opinion core issues in latecomer industrialization—be highlighted and stressed (Section 4). The topics presented below are our tentative suggestions. Other issues which are equally important in leveling up private industrial capability can also be discussed.

- (i) *Quality-based competition*—while benchmarking has taken a strong hold in Ethiopia as a method to compare and set targets for productivity improvement, excessive reliance on it may be harmful.

Although benchmarking can handle quantity-based competition very well (for instance, raising worker productivity from cutting 175 shoes to 300 shoes per day), sources of value and competitiveness can also emerge from producing customized products in small lots and many variations, ensuring “only one in the world” quality at high cost and price, creating national brands, or providing excellent customer services. In some cases, quantity-based competition runs the risks of cut-throat price war, shrinking profit, direct competition with Chinese products, and inability to invest in innovation. Ethiopia should pursue both quality-based competition and quantity-based competition depending on product type and targeted markets. Too much emphasis on the production of undifferentiated commodity products at low cost will constrain the future path of industrialization. Policy tools for quality-based competition such as *kaizen*, branding, strategic marketing, design training, and so on, should be strengthened⁹.

(ii) *Matching industrial human resource with demand*—Ethiopia is building new technology and engineering universities at great speed. This is a highly commendable move because young people equipped with frontline skills and technology are undoubtedly the foundation of industrialization. But demand for this human capital must be prepared as its supply is being greatly increased. A common problem in many developing countries is the unemployment of professionals due to the limited size of domestic sectors that can gainfully hire them. This generates a strong pressure for brain drain to advanced countries. Another problem often encountered in East Asia is the mismatch of graduating students with company needs. While many young engineers are produced, FDI firms are not satisfied because these engineers do not have skills and knowledge required by them. This is caused by outdated teaching materials and equipment, untrained teachers, and the lack of industry-university collaboration in building the curriculum. If these demand side issues are neglected, Ethiopia may face similar difficulties when a stream of new engineering graduates comes into the labor market several years from now. Ethiopia must think harder because it does not yet have a large agglomeration of manufacturing FDI firms craving for young talented staff and workers.

(iii) *Agriculture-industry linkage*—this is key to the success of Ethiopia’s industrialization as envisioned by ADLI. So far, such links are beginning to form in the leather industry (from domestic hide and skin to leather products) and some agro-processing industries (for example, sugar, nutrition food, edible oil, macaroni and pasta) but the scale of these links remain small. In the next five years, serious policy effort should be made in agro-processing industries to enlarge the existing links and to create new ones. For this purpose, the quality and content of the agro-processing industry master plan and action plan, and effective cooperation between MOTI and MOARD, become crucial.

(iv) *Geographical aspects of industrialization*—importance of the road sector is highlighted in the current PASDEP, but policy interest must be expanded beyond the construction of transport infrastructure to include other spatial aspects of industrialization. In the next PASDEP period, attention should be paid to, for example, (i) logistic performance of the Addis Ababa-Akaki area which is the nation’s largest industrial zone (especially time and cost aspects of access to Djibouti

⁹ Two of the Ethiopian agro-products with high raw material quality are leather and coffee. These can greatly improve commercial value in the global market if proper design, processing, marketing, and branding are conducted. According to a Japanese high-quality leather and fur company, Ethiopian sheep skin is the best in the world in its softness, thinness and beauty but to maximize its potential requires very high processing and cutting skills. For such a product, *kaizen*, which can pursue endless improvement, is more suited than benchmarking.

Port, including the possibility of building a railway connection); (ii) policy criteria for creating and operating industrial estates; and (iii) initiation of the construction of Growth Poles and Growth Corridors as overall regional development which encompasses agriculture, agro-processing, water management, tourism, and related manufacturing and services.

7. Numerical targets

Numerical targets will be required for each sector in PASDEP II. In fact, MOFED is asking for more systematic list of numerical targets for the trade and industry sector than in PASDEP I. In principle, the use of numerical targets is not only acceptable but also highly desirable for ensuring implementation. However, the important question is which indicators are chosen as targets and at what levels they are set. To make numerical targets meaningful, serious deliberation is needed. A mechanical and careless choice will even be harmful to industrialization as they distract policy makers' attention from their true objective.

In the current PASDEP, most of the targets in the trade and industry sector are expressed in growth rates, shares of GDP, or export earnings in USD. Some of them count numbers of policy actions taken or firms supported. Tables 3 and 4 show respectively the numerical targets and major achievements by 2007/08 in the trade and industry sector as reported in the *PASDEP Annual Progress Report 2007/08*:

Table 3. Current PASDEP: Numerical Targets Related to Industry

	Baseline (end 2004/05)	Target (2009/10)
Growth rate of industry value added (%)	8.1	11.5 (average)
Share of industry in GDP (%)	13.6	16.5
Revenue generated from industrial export (leather and leather products) (USD million)	63.73	500

Source: *PASDEP Annual Progress Report 2007/08* (MOFED draft, p.121)

Table 4. Current PASDEP: Major Achievements in Trade and Industry by 2007/08

1. Textile and garment	Encouraging steps have been observed; 71 projects were at different stages of operation. Export earnings recorded USD 14.5 million (15.1% higher than previous year).
2. Tanning industry	Support has been provided in manpower, machinery, market access and other areas. 5 of 16 tanneries supported registered better performance, and 3 tanneries have shifted their export to crust and finished leather products.
3. Leather export	The tanning industry generated revenue of USD 101 million, 13% higher than previous year but lower than target (USD 153.4 million). Shoe export recorded USD 9.66 million.
4. Sugar	Production was 296,009 tons (3 sugar factories), slightly above target.
5. Cement	Mugher produced 737,043 tons (against the target of 871,000 tons); Messebo produced 950,000 tons (18% higher than the previous year); five new plants produced 146,833 tons. Due to construction boom, supply gaps emerged and 613,767 tons of cement was imported in 2007/08.

6. Floriculture	Flower farms reached 922 ha (43% increase over previous year); flower export reached USD 111.7 million (against the target of USD 166.7 million).
7. Privatization	15 public enterprises (PEs) given decision to privatize; 3 PEs for re-tender; 31 PEs carried out business evaluation; 10 PEs completed transfer with different modalities, etc.
8. Export earning	Export in 2007/08 was USD 1,481.4 million (25% higher than previous year), with coffee earning 35.5% of total. Target for 2007/08 was USD 1,727.5 million. Export performance has been evaluated monthly first by MOTI and subsequently by the National Export Steering Committee.
9. WTO accession	Process has continued.

Source: Extracted from *PASDEP Annual Progress Report 2007/08* (MOFED draft, p.16). This is a summary of more detailed discussion of achievements and challenges in the main text of the Report (pp.83-88).

Purely quantitative targets expressed in percent or USD million, without examining the *quality* of such achievement, are still useful because they can visualize the progress of industrialization in concrete and comparable numbers—just as the final scores of a football game. Developing countries often use these targets in their industrial policy formulation. However, mindless obsession with such numbers also carries risks. Ethiopia should broaden the scope of industrial targets by introducing more indicators for skills, technology and other internal capability in addition to the traditional “macro” targets.

Three questions should be asked before including numerical targets in any plan documents.

First, it must be asked whether the indicator in question properly belongs to the domain of government or the domain of market in the context of a specific industrial sector in Ethiopia¹⁰. If certain outcome is mainly determined by market forces, or if the micromanagement by the government only complicates business decisions, the government should stay out. In most circumstances outcome is determined jointly by market forces and industrial policy. In such a case, targets may be set but results must be interpreted with balance and care.

As argued in Section 1 above, industrial performance such as growth rates and export earnings is a function of private effort, industrial policy, and uncontrollable shocks (which may be positive or negative). The last term dominates in the short run while the first two largely determine industrialization in the long run. In the medium run of PASDEP’s five-year horizon, all of these matter but shocks coming from political, climatic, macroeconomic, and global events still have significant influence. In the current PASDEP period, for example, domestic macroeconomic overheating and global financial crisis impacted industrial performance. For this reason, the actual growth rate or industrial export earnings should be treated with care. High growth in the early years should be somewhat discounted and subsequent slowdown should not be blamed entirely on MOTI. These targets should be indicative ones that call for careful interpretation and review

¹⁰ As a general rule, the domain of government should be relatively small if the industry is not capital-intensive, the market and prices are volatile, the industry produces final consumer goods, the domestic private sector is highly developed, policy capability is weak, or public private partnership is fragile—and vice versa (K. Ohno, 2009c, Section 4).

rather than those that carry legal responsibility and force assigned ministries to attain by all means.

Second, qualitative goals must be translated into proxy variables which are both meaningful and quantifiable. For example, skills and technology embodied in human capital are hard to measure directly but can be counted in the number of graduates from engineering universities, the number of patent applications, R&D expenditure, and so on. Similarly, international competitiveness of an enterprise may be gauged by its output and export growth, the number of foreign business partners, ISO certificates, quality awards, and so on. While these proxy variables are useful, there is always a gap between true performance and these “achievements” due to quality problems, distorted incentives, or measurement errors. Again care must be exercised to avoid mechanical interpretation.

Third, goals and timetables must be set properly. They must be both *ambitious* and *realistic* in the sense that serious joint effort by the government and the private sector should be able to attain it barring unexpected large negative shocks. The timetable must also be such that it accelerates joint effort. If the goal is too high or the timetable is unreasonably short, the target is unattainable by any effort and becomes meaningless. It only generates buck passing without any industrial development. To put it differently, numerical targets should not be set politically or haphazardly; they must be backed by good situation analyses, demand forecasts, and sound judgment about Ethiopia’s dynamic capability. Various numerical targets contained in Ethiopian policy documents should be scrutinized from this perspective. For example, the textile and garment industry is said to be unable to attain the export target of USD 500 million per annum by 2009/10 by a wide margin. One of the many reasons for this “failure” is that the target was set unrealistically high in its master plan. Reconsideration of the target is required among other policy actions.

Additionally, it is necessary to ponder how many industrial targets should go into PASDEP II. It is not a good idea to overcrowd PASDEP II with too many targets which should properly belong to the five-year industrial plan of MOTI or master plans and action plans of individual priority sectors.

8. Policy documents and organization

As industrial policy scope is expanded, organizational reform of MOTI becomes necessary. This must be undertaken from the viewpoint of ensuring policy quality and substance rather than from the angle of administrative and procedural efficiency pursued by BPR. Although the trade and industry chapter of PASDEP II does not have to include the discussion of this internal reform, it is nonetheless very important to carry it out so that the working of MOTI will be strengthened to take up the new challenges.

First, master plans of priority sectors and priority issues must be drafted or revised. PASDEP II may wish to declare that all existing industrial master plans will be revised with new content and structure, and new master plans will be drafted for the remaining (new) priority sectors in appropriate steps in the next several

years (not necessarily by the end of the PASDEP II period). This includes both export-oriented industries and import substitution industries (Section 5). All master plans must be equipped with an action plan matrix with sufficient detail and an effective monitoring mechanism. For priority issues (Section 6), master plans with practical action plan matrices must also be drafted. The speed of master plan drafting and revision must be adjusted so as to allow MOTI to improve policy making capacity significantly while avoiding the risk of the process becoming superficial and mechanical due to too much time pressure. By 2014/15, several master plans for priority sectors and priority issues should be prepared.

Second, MOTI's policy organization must be upgraded to cope with the following tasks which will become important in the PASDEP II period:

(i) *Cross-cutting issues applicable to all industrial sectors*—this includes benchmarking, *kaizen*, quality standards and control, environment regulation, and other common industrial issues and tools to assist all types of enterprises.

(ii) *Integration of trade policy and industrial policy*—this is essential for drafting a strategy for trade and investment liberalization which is closely linked with industrialization strategy as well as for strategic WTO accession.

(iii) *Inter-ministerial coordination*—regular and substantive cooperation with MOARD is crucial in promoting agro-processing or leather industries and creating industrial corridors. Cooperation with other ministries such as MOFED, MOST and MOE should also be firmly established.

(iv) *Public-private dialogue (PPD)*—new institutions for national and regional PPD are being constructed. MOTI must use this framework effectively to produce concrete results in public private cooperation.

(v) *Development centers and institutes*—sectoral departments should be upgraded as need arises to “development centers” or “institutes” with enhanced staff and budget so they can handle master plan revisions, action plan monitoring, PPD, enterprise support, etc. more effectively. As necessary, similar centers or institutes should be also established to handle cross-cutting issues (see (i) above).

Generally speaking, MOTI needs more “horizontal” mechanisms among its departments and vis-à-vis other ministries to combine and coordinate different functions. This will complement the existing “vertical” line of command emanating from the top. This can be accomplished in various ways including high-level meetings strongly directed by the Minister, a support team under the Minister to oversee all ministerial affairs, frequent inter-department meetings, or creating more “horizontal” (functional) departments.

9. Conclusion

To sum up, our suggestion is that the trade and industry chapter of PASDEP II should have basic ingredients as shown in Table 5 below. Wording, ordering, and addition and subtraction of contents remain

flexible and the ultimate decision rests with the Ethiopian Government in general and MOTI in particular. Since space devoted to trade and industry in PASDEP II is limited, these must be written compactly in several pages or at most ten pages. In policy documents like this, the important thing is what is said and not how long it takes to say it.

Table 5. Possible Ingredients of Trade and Industry Chapter

Review of industrial performance [1](7)
Medium-term orientation and vision
Proactive industrial policy [2]
Expansion of policy scope and measures [3] (5) (6)
Internalizing skills and technology [4](7)
Priority industries (possibly with targets) [5](7) (8)
Export-oriented industries
Import substitution industries
Priority issues (possibly with targets) [6] (7) (8)
Quality-based competitiveness
Matching industrial human resource with demand
Agriculture-industry linkage
Geographical aspects of industrialization, and others

Note: Numbers in square brackets indicate the most relevant section of this paper and numbers in round brackets are sections with supplementary relevance.

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