Learning, Industrial and Technology Policies for Pakistan:

Something Old, Something New, Something Bold

--Akbar Noman
Columbia University

I. Introduction

- Recent revival of interest in Industrial Polices (IP) - both theory and practice
- Including in Pakistan led by LSE and its Lahore Journal of Economics (Amjad, ul Haque, Burki, McCartney and Rahim) and this conference
- The theoretical case bolstered by the focus on learning (Greenwald and Stiglitz -2014) and "new structural economics" (Justin Lin -2012)

Learning Industrial and Technology (LIT) Policies

- To more accurately capture what IP is or should be about, Noman and Stiglitz (2012 and 2015) propose that IP be replaced with Learning, Industrial and Technology (LIT) policies (the terms are used interchangeably here).
- Differences in learning intensities: rationale for sectoral targeting -- especially manufacturing and IT.
- Case for protection of manufacturing in developing countries made on those grounds (Greenwald and Stiglitz)
- Since manuf. industries vary in their learning-intensities: a basis and an important criterion for LIT policies targeted at particular industries

Recent Empirical Work

- In addition to conceptual/ theoretical work – # of empirical studies. One strand,(notably Ha-Joon Chang) emphasizes the vital role LIT policies played in the historical experience of the now developed countries
- The 2nd strand goes beyond the focus on the original 4/5 East Asians (notably in the classic works of Amsden and of Wade) to examine successes elsewhere (e.g. Brazil, Ethiopia, Bangladesh, Chile, Thailand, Mauritius)

Heterogeneity

- These bring out the heterogeneity of conditions and circumstances in which LIT pols can work
- The degrees and nature of success, and details of policy design, also vary. Several sectoral successes with substantial overall economic impact (e.g. Hosono, Abebe and Schaefer, Andreoni, Shimada, Chandra, Narrainen)

Islands of Success

- There are potentially important lessons for Pakistan from these partial but significant successes Illustrated by McCartney's focus on the lessons of Bangladesh's garment exports for Pakistan's textiles
- More broadly: lessons to be learned from such (substantial) ***islands*** *of success in countries with varyingly complex political and institutional circumstances at some distance from "development states" of East Asia*

Focused Reforms

- Much to be said for getting away from wide-ranging reform programs/proposals commonly proposed since the inception of “conditionality”. Whatever their merits, they make the attempt at pursuit of the best, the enemy of the good. Overwhelming --> induce paralysis
- Pakistan case cf. McCartney. More General case: Noman, A. and Stiglitz, J.E (2015) “Economics and Policy: Some Lessons and Implications of Africa’s Experience”

II. Pakistan: Past and Present

- Ironic: Pakistan, amongst the first "East Asians", emulated by Korea in the early 1960s, has now to re-learn not only from the East Asians who have left it far behind but also lesser successes elsewhere
- In 1965 Pakistan's manuf. exports $190 mln-- almost double that of Korea ($104 mln); some 42% and 15% higher than Brazil and Mexico; ***and exceeded the combined total of such exports from Indonesia, Philippines, Thailand, Turkey and Malaysia.***

- By 1985 manuf. Exports at $1,731 mln. were well below all these countries ranging from 80% of the level in Indonesia to 6% of that in Korea
- 1960-90: Despite exogenous, war-related shocks and country's break-up plus the "policy shocks" of the 1970s, the growth momentum was such that over the 3 decades, GDP growth rate placed it amongst the top 10
- In descending order these were Korea (9.3%), Hong Kong (8.7%); Taiwan (8.3%); Singapore (8.0%); Thailand (7.5%); China (6.6%); Japan (6.6%); Malaysia (6.5%); Egypt (6.2% and Pakistan (6.1%). (During this period, India's growth rate averaged 4.4%)

The Lost Decades

- 1990-2010: fell far down in the rankings (swapping with India the growth rate of 4.4%).
- These 2 decades: the 10 fastest growing economies (excluding oil exporters) were China (10.7%), Cambodia (7.9), Vietnam (7.7), Uganda (7.4); India (7.0); Laos (6.8); Singapore (6.6); Ethiopia (6.3); Malaysia (6.0); Dominican Republic (5.9) and Panama (5.8)
- All other S. Asian economies grew faster (Sri Lanka 5.6%; and Bangladesh 5.4%). With the highest population growth rate in S. Asia; per capita growth lagged even further behind

Ethiopia Example

- Amongst the top ten of 1990-2010, Ethiopia particularly interesting and illuminating case. PM Meles Zenawi , articulated and pursued policies adapting East Asian lessons, in particular LIT policies (Ethiopia's details in Noman and Stiglitz (2012) and Noman and Stiglitz (2015))
- 2000-2010 its growth rate, 8.8% was second only to China's 10.7%. 2004-11: its growth of 10.6% = to China's. More on its LIT policies later. Here ask: if Ethiopia with much less of an entrepreneurial-managerial and civil service base, can do it why can't Pakistan and how might its lessons be learned?

What Changed

- What changed in Pakistan between 1960-90 and 1990-2010?
- Seeds for the slowdown sown in the 1970s and 1980s: 1st by ill-conceived nationalizations. Much reversed in the 1980s, but a decade of "facile" growth: fiscal deficits and domestic demand fueled by Afghan war related foreign financed expenditures (and drug smuggling?) sowed other seeds
- 1st heavy borrowing at high interest rates for the fisc -- at the heart of the macroeconomic crises and consequent austerity programs since the early 1990s

More Changes

- 2nd arguably: in 80s germination of the politics-governance-security nexus and the rise of terrorism
- 3rd neglect of infrastructure and growing bottlenecks, especially of electricity
- 4th related to the above: depressed investment. Even in high growth phase, Pakistan not much of an investor --investment /GDP ratio around 20% during 1960-90. But in recent years some 15%

Miserable Investment

- Clearly with 15% investment rate: no decent growth, nor success with tech. upgrading or other aspects of LIT policies
- That Pakistan acutely needs to do so is well documented. Several studies have noted the technological quagmire that the country’s manufacturing and exports have been in (e.g. Amjad; ul Haque; Lal and Weiss; Hausmann, Hwang and Rodrik; Kemal; World Bank 2013; ADB Institute)

III. Pakistan: A LIT Future

- Echo calls for a revival of IP in Pakistan. Then elaborate on some policy paths. Hope move the discussion forward, especially on tech. upgrading
- 1st and foremost: raising investment. 2nd directing it towards industrialization, learning and technological upgrading
- Begin with (probably) highest risk and reward proposal: establishing or reviving DFIs

III.1 Development Finance

- Access to finance on attractive terms can both stimulate investment and direct it
- Raises issues revolving around governance and the capacity to run DFIs effectively. Particularly guard against capture by politically powerful rent-seekers.
- Such capture marred the experience with nationalized commercial banks, particularly in the 1980s and 1990s.

Development Banks

- But earlier, 2 DFIs - PICIC and IDBP- played a vital role in the creation or development of a class of industrial capitalists-entrepreneurs; and the rapid growth of manufacturing in the 1950s and 1960s. They demonstrated the powerful impact that DFIs can have in raising investment See Papanek , G (1967); Lewis, S.R. (1970/71)
- Such socialization of investment risks → help raise not only investments but also savings --as in Pakistan's past and in E. Asia - the strong incentives to invest raised corporate savings

DFIs: Managing Risks

- DFIS though challenging governance issues. Careful attention to how to mitigate the risks.
- No gainsaying: political context of Pakistan today makes DFIs a bold and risky venture. Perhaps why Burki refrained from proposing them ,whilst emphasizing development finance. His call for new instruments such as venture capital and equity worthwhile but unlikely to make anything like the impact that conventional development finance can on investment

DFIs: Managing Risks II

- Success contingent on political commitment. And some degree of consensus amongst the major political parties
- Of course, also so, to varying extents, for other elements of LIT policies
- Propose to political leadership. (Strengthen or weaken the quest for anti-terrorism policies consensus?)
- Many others in this room better placed to make that "big" political-economy judgment

Managing Risks III

- Confine myself to "smaller" issues of risk management
- One aspect: designing details of procedures and policies (including on insulation from "political" lending): technical advice from successful DFIs operating in lesser, messier "development states" states than in E. Asia. The most obvious candidate for such assistance is Brazil's BNDES; Ethiopia's DBE could be another
- Other proposals later for improving the risk-reward ratio for LIT pols also relevant to DFIs

Financing DFIs

- Another crucial issue: source of DFI funding. PICIC and IDBP relied heavily on World Bank financing. Highly unlikely that the WB would reverse its policy in the foreseeable future.
- Given the state of public finances, the banking sector and NBFIs, adequate DFI lending likely to require concessional external finance
- China probably the most likely source. The BRICs new bank is also a possibility. Another option: provide a stake to some Sovereign Wealth Fund (SWF) such as the Malaysian one, "Khazanah" that supports to LIT policies

Lessons from "Islands"

- Noted above recent work on successes (Thai autos, Brazilian "Cerrado", Bangladesh garments, Chilean salmon, Ethiopian leather.)
- These cases bring out that reasonably good institutional "islands" for specific purposes, as distinct from an overhaul of the entire institutional structure, can be highly effective

An Illustration of "Islands" Approach

- Illustrate with case of Ethiopia. Main focus of LIT policies: Exports of floriculture and manufactured leather
- Exports of floriculture: $ 0.15 mn in 1997 to $ 210 mn in 2011.Leather goods after more gradual rise initially, now growing dramatically. One large Chinese shoe plant, Hujian, producing designer shoes aiming for $4 billion exports within a decade
- One key issue: how learning comes about. Similar to Bangladesh garments, Hujian is sending local employees for training to its parent company: 130 Ethiopian university graduates sent to China by 2012/13 and another 300 on the way

Ethiopia Case

- The common elements in the industrial policy support of both sectors: 1st access to finance on attractive terms through DBE; 2nd close government-business consultations; 3rd flexibility in altering forms and degrees of support
- On tailoring of policies for sector specific challenges: leather needed to overcome coordination failures entailing tackling several problems along the value chain simultaneously
- The dominant challenges in the floriculture sector pertained to logistics, land acquisition and initial capital

Ethiopia :Technology Acquisition

- In leather,, aggressively promoted acquisition of technological capabilities, including:
- 1) establishing a leather training institute; 2) subsidizing foreign experts in firms; 3) ban on exports raw hides and skins, and taxes on exports of minimally processed products

Targeting Industries and Technology

- i) What particular industries to promote?; and ii) how to encourage technological upgrading? Will focus mostly on the latter
- On choice of industry, recent proposals have included Amjad: Information technology (IT) . Burki: small and medium enterprises, notably agro-processing, small-scale engineering, leather products and IT in the Punjab.
- Analytical work to carefully assess opportunities in domestic and foreign markets.

Targeting Industries

- One possible approach that proposed by Justin Lin -- target sectors that conform to latent comparative advantage (LCA) i.e. “target industries in dynamically growing countries with a similar endowment structure” with per capita incomes not higher than roughly 2-3 times J.Y. Lin "Industrial Policy Revisited: A New Structural Economics Perspective”
- A useful starting point, though not the excusive approach. LCA approach mitigates risk of picking “losers”, but risks losing winners. -- Chang: does not accord with the experience of some countries that also created dynamic comparative advantage in industries outside the ambit of “LCA”

Obvious Targets

- In Pakistan one obvious target consistent with the LCA approach: the textiles sector. Joining the chorus McCartney sees lessons from the "island" Bangladesh garments
- Another obvious area stems from Pakistan having one of the largest gaps between "best practice" and "average practice" within an industry

Technology: Best and Worst

- Recent study: Comparison of 10 countries – Pakistan's variability in productivity between firms in the same sector almost double that of the 2nd worst: Philippines
- Also at the bottom of 13 countries (including, Bangladesh, India and Sri Lanka) in % of firms introducing a new product in preceding 3 years
- And of of 9 countries in % of firms introducing new technology in preceding 3 years

DFIs Again

- The focused, selective approach – crossing the ocean by searching for islands – also relevant for DFIs/DBs and could reduce risks
- Confine DBs to lending to a very narrow, prioritized areas
- To begin with:1st Tech. upgrading of textiles. 2nd financing firms to move to the tech. frontier within the country
- Perhaps 1-2 other carefully selected areas.

Governance-Security-Terrorism

- Finally success depends not only on buy-in by the political leadership
- It will be helped by some consensus (As an architect of Indian reforms. Montek Singh Ahluwalia, emphasized – a strong consensus on "weak reforms" served India well)
- Sustained revival of growth and structural transformation also obviously depends on an improvement in security

Existential and Developmental

- Country said to face existential threat from terrorism
- But consensus on how to fight it – problematic
- Will it help or hinder to add development to the "consensus agenda"?
- So seek one on fighting terrorism and economic revival?
- Can economists sell any of this to politicians?