

**People or Profits:**  
**What Form Should Developing**  
**Countries Adopt in Order to**  
**Achieve Long-Run Prosperity?**

Matthew Schwarz  
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Debate Briefing Notes

**Debate Briefing Points:**

Background:

Countries, like people, are forced to make trade-offs between scarce resources in order to maximize their utility. Unlike people, a state's "utility" can be defined as the ability of the state to protect and meet their citizen's rights and demands; it is their freedom to act. This is a balancing act that both developed, and less developed countries face, but the choices are starker for poorer nations. Should their leaders focus on meeting a minimum standard of living, or should the state focus its energies on developing its capacity for growth, especially its innovation capacity?

The answer to this question is difficult to say for certain, hence the dilemma. If resources are re-directed away from social services, people will get sick and suffer; their living standards will drop dramatically, as there are often no jobs available for them to earn a living in. Furthermore, states will find it difficult to maintain stability if there are large gaps in income and stratified social groups, that emerge from less redistributive societies. It is thus easy to see why both democratic, and authoritarian capitalist states would want to choose social programmes over economic expansion.

This conclusion however, is flawed. A strong-focus on social programmes often perpetuates a cycle of impoverishment as resources that should have been applied to development are redirected to individuals. This is the case with portions of Latin America; although there are attempts to create a wide-ranging safety net, the resources

diverted from development reduces the long-run growth potential of the country, leaving the people worse off than in a developmentalist state, such as South Korea. This reduction in long-run economic growth potential is the crux of the criticism to not having a technology policy.

### Criticisms of a Technology Policy:

#### **1. Technology Transfer Requirements:**

A common problem for developing countries that operate in the global market is the type of technology they receive as investment. Often it is the older, less productive equipment that is sold or moved to a developing state from a wealthier country, as the LDCs have lower labour costs. Although this is economically rational for corporations to do, it leaves these LDCs at a permanent disadvantage to more wealthy nations, and holds back the poorer state's development. In response to this, many LDCs are instituting a requirement that foreign firms either utilize their most advanced techniques during production, or the firm transfers the technology to a local subsidiary that then manages production.

Unfortunately, this does not often happen. Only very large states such as China, India or Brazil have been able to secure such contracts, the remainder have simply excluded themselves from consideration by multi-national corporations. This is because these firms doubt that their intellectual property will be protected, and they fear the emergence of peer-competitors.

**Rebuttal:** This is actually an argument for a technology policy: If you can't get the advanced technologies, then it is best to develop your own to solve local problems. Furthermore, it is worth noting that virtually every developed nation today infringed on patents as it was developing; the British complained on American patent infringement, the Soviets stole research from the west, and China has lax patent enforcement that achieves the same thing.

## **2. The Human Costs:**

States do not willingly chose to compete poorly against their competitors. If a state redirects money from development to social programmes, it is almost always because there is a great need for these programmes. Many times, it is a choice between food/shelter or education, and funding a world-class research institution. In democratic states, the choice is obvious; in neo-patrimonial states, social programmes can increase the prestige and support for a non-democratic leader.

**Rebuttal:** A technology policy does not always need to be a choice between food and fusion. Rather, there are many problems in LDCs that a technology policy can help overcome and improve the lives of local people; these include using marginal land for biofuels (creating new industries and jobs), research on horticulture (more food) and irrigation, and ways of recycling waste imported from wealthier nations. Thus, a technology policy can actually compliment a social programme.

## **3. Rent Seeking Behaviour:**

Many LDCs have poorly developed institutions of government. Their judiciary system is biased towards those in power, the executive is not restrained by a free-press or the legislature, and civil society is either non-existent or in disarray. As such, many people believe that rather than spending money on poorly accountable research projects, specific, accountable programmes, such as school lunches or conditional cash transfers should be used instead. Spending money on very specific projects is both desirable from an accountability and from a social perspective.

Related to this is that well-intentioned technology policies can be corrupted by leaders who have either different goals than their predecessor, or who see greater advantage in another line of work. This was the case with the Argentine aerospace industry; many of its leading engineers were reassigned to an automobile division at the whims of a leader, sabotaging both projects. The lack of policy continuity and the lack of credible independence within research projects both imply that technological research should be started only after a strong, central state have been developed.

**Rebuttal:** It is clear that social programmes are just as open to corruption as technology policies. Education can marginalize minorities and their culture and healthcare can isolate rural citizens. By having an educated elite, you create demand for a free-press, and necessitate an open and liberal economy, there-by reducing the capacity for rent-seeking (as evidenced by China: as it grows wealthier, there is less and less tolerance for corruption)

#### 4. **Macro-stability concerns:**

Technology and industrial policies are expensive to operate. Regardless of whether or not we support a theory of product cycles (and the subsequent time periods a state should invest in new fields), a commitment to technology policies is a long-run choice, and thus is placed at risk to macro-economic fluctuations. Argentina experienced this, where a financial crisis forced the government to end their aerospace programme, leaving nothing to show for the money spent. Poor states have less, by definition, resources to allocate to technology policies. This means they are less able to support their programmes in times of economic hardship, the exact time state sponsorship is most needed.

**Rebuttal:** Too often in wealthy nations, we assume that a technology policy must operate along the lines of ITER, with multi-billion dollar budgets. This is not true. Much smaller programmes operate successfully in many nations (such as Costa Rica) and assist local communities in overcoming local problems. The important point is that a technology policy must address local concerns in order for it to be successful; this gives the programme the necessary momentum to survive changing budgetary priorities.

#### Arguments For A Technology Policy:

##### 1. **Jobs:**

Much has been made recently of the effectiveness of “conditional cash transfers” in increasing educational attainment in LDCs. This is a worthy goal for social reasons,

however, it does not by itself lead to economic growth. It is important for states to provide the mechanisms and opportunities for economic growth, and the best way to achieve this is a technology policy. This is because it provides an avenue for your highly educated workforce to participate in the global economy (aside from relocating) by working for multinational companies and then establishing their own private, domestic firms. This was the case in much of East Asia, and serves as a rebuttal to states such as Mexico. Mexico has a well-educated workforce (for Latin America), yet does not receive a corresponding boost to its growth. This is because there are too-few opportunities for the educated community in Mexico, as evidenced by their continued migration to America. In short, a technology policy is necessary in order for states to receive a return on their investment in human capital; otherwise they will experience true “capital flight.”

## **2. It Solves Local Problems:**

A criticism of rich-nation research is that it approaches problems faced by wealthy nations, rather than issues that afflict poorer states. Tens of billions of dollars is spent on fusion research, while malaria is relegated to the backwaters of medical science. The problem with this criticism is that it is entirely rational for states to fund programmes in this manner. A technology policy in LDCs can exploit this fact.

In a “product-cycle” model of growth, the best time to make your region a hub in a specific field is at the beginning of said cycle. Rather than compete with wealthy nations and the problems they face, LDCs should focus on their own afflictions, the oft-ignored issues, and thus establish themselves as a hub at the start of a new product cycle.

Even if you do not subscribe to a theory of product cycles, there are reasons to focus on regional and local problems: It encourages national pride and cohesion as citizens help each other, it provides you with a guaranteed market for your wares without worrying about the global economy, and finally it removes long-run constraints on a state's potential growth level. Thus, it is economically rational for LDCs to engage in a technology policy.

### **3. Diversify Risk and Resources:**

A technology policy in LDCs also represents a diversification of risk. Rather than relying on one product, such as natural rubber or coffee, a technology policy allows LDCs to diversify their economy in the event that their product becomes worthless. This is a very real concern, as any rubber-exporter in the 19<sup>th</sup> century knows; their natural product was replaced by a synthetic one which was cheaper and no-longer required the initial producer.

Furthermore, primary resources, such as coffee, coconuts, etc, inevitably face declining prices, turning once profitable industries into marginal operations at best. These economies will always end up competing against the lowest-cost producer, a very bad stagnation trap. By having a technology policy, the state is able to diversify their economy and not face resource-exporter's great curse.

### **4. The Need for a Social Safety Net:**

While many arguments can be put forward for the proper size and scope of a state, virtually none will argue that a system of no social safety net is the best outcome. Yet, this is often the case in LDCs; they do not have the resources to fund social programmes, and thus people literally live and die by their wits and fates. While it is against human nature to place emphasis on the future over the present, the only way to improve the lives of a state's citizens, short of a natural endowment, is to grow the economy. East Asia has shown that the best way to do this is through an active state technology and industrial policy.

There is another argument in favour of establishing a functional social safety net as rapidly as possible: if the state fails to do so, private actors will. This weakens the authority of the state, and can allow for less than reputable actors to emerge, as is shown by the large support base of Hamas in Gaza. A technology policy will allow a state to build an effective social programme much quicker than otherwise would be the case.