

# Development Economics

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# Structural Change

Both Harrod Domar and Solow models are one sector models. The view behind the Harrod Domar and Solow models is that the right mixture of saving, investment which may be increased by foreign aid were then all that was necessary to enable developing nations to proceed along an economic growth path that had historically been followed by the more developed countries.

However more saving and investment is a necessary but not a sufficient condition for accelerated rates of growth. The Marshall Plan had worked for Europe because the European countries receiving aid possessed the necessary structural, institutional, and attitudinal conditions (e.g., well-integrated commodity and money markets, highly developed transport facilities, a well-trained and educated workforce, the motivation to succeed, an efficient government bureaucracy etc.). So development also needs overcoming these differences.

# Structural Change

Let us consider first the structural changes entailed by development. A structural change occurs when "sectors" in the economy grow and shrink relative to other sectors, in particular they shift from a predominantly rural agricultural economy to a predominantly urban industrial economy. As economies become wealthy, they experience continual structural change among industrial sectors (apparel to computers for instance) and, eventually, transform to a predominantly service economy (post-industrial).

# Structural Change

An important framework of analysis for the qualitative changes that occur with development is due to Rostow who viewed the process of development as a series of successive stages of economic growth through which all countries must pass.

According to Rostow's Stages of Economic Growth model (1960) the five basic stages in which all countries can be classified are:

Traditional society (subsistence agriculture or hunting and gathering);

Transitional society (more productive, commercial agriculture, urbanization, formation of national identities);

Take-off (industrialization, technological breakthroughs).

Mature stage (Diversification of the industrial base, Transport infrastructure)

Society of mass consumption.

# The Lewis Model of Structural Change

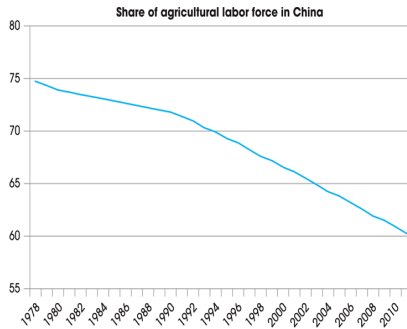
To repeat, development requires not just accelerated capital formation but the structural transformation of a primarily subsistence economy.

Over half of population in developing countries live and work in rural, agricultural sector as subsistence or tenant farmers, sharecroppers or landless labourers with very low labour productivity very low: less than \$500 a year or less than \$1.90 a day

Industry has superior production and demand characteristics: 1) Industry has much higher labour productivity 2) Demand for most agricultural goods income inelastic (Engel's Law)

	Region	Agriculture (%)	Industry (%)	Services (%)
Low income	Asia and the Pacific	53.7	17.9	28.4
	Eastern Asia	34.8	23.8	41.4
	Latin America and the Caribbean	43.3	10.8	45.9
	South-Eastern Asia and the Pacific	50.1	16.8	33.1
	Southern Asia	67.5	14.6	17.9
	Sub-Saharan Africa	71.2	7.1	21.7
Lower-middle income	Asia and the Pacific	43.8	21.8	34.4
	Latin America and the Caribbean	28.7	18.2	53.1
	South-Eastern Asia and the Pacific	38.1	19.0	42.9
	Southern Asia	46.0	23.0	31.0
	Sub-Saharan Africa	49.0	10.9	40.2
Upper-middle income	Asia and the Pacific	24.5	25.7	49.8
	Eastern Asia	24.0	25.7	50.3
	Latin America and the Caribbean	15.2	21.2	63.6
	South-Eastern Asia and the Pacific	34.3	22.0	43.7
	Southern Asia	19.8	32.0	48.2
	Sub-Saharan Africa	18.8	16.1	65.1
High income	Asia and the Pacific	4.0	25.5	70.5
	Eastern Asia	4.2	26.2	69.6
	Latin America and the Caribbean	4.9	22.5	72.7
	South-Eastern Asia and the Pacific	2.9	21.2	75.9

Figure: % employment, by sector ILO 2015



The share of China's agricultural labor force has been continuously declining since 1978 as millions of workers have left farms and rural villages for employment in the manufacturing sector.

Source: Food and Agriculture Organization of the United Nations (FAO), <http://faostat.fao.org>.

# The Lewis Model of Structural Change

The model proposed by Nobel laureate Arthur Lewis in the 1950s, became the general theory of development in the 1960s and early 1970s. It has been applied to the China miracle.

Two sector model: traditional (agriculture) and modern (industry). In traditional sector marginal product of labor (MPL) is zero (surplus labor hypothesis), and it is possible to withdraw labor from the sector without losing agricultural output.

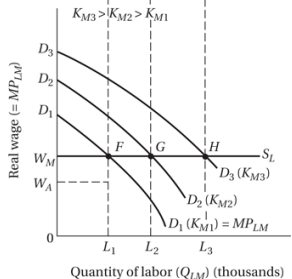
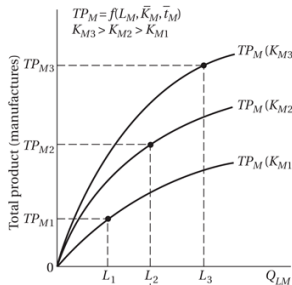
Important distinction between static and dynamic surplus. Static surplus assumes marginal product of labour zero. Dynamic surplus means workers could be removed without output falling if those remaining work harder/longer



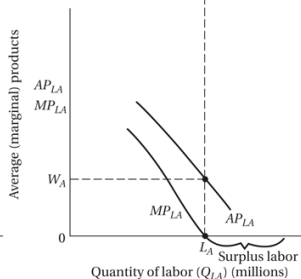
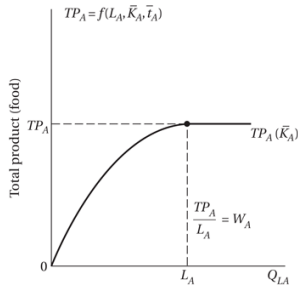
# The Lewis Model of Structural Change

For high levels of agricultural labor ( $L > LA^*$ ), the slope of the production function is horizontal. The speed of the transfer from agriculture is determined by the rate of capital accumulation in the modern sector. Capitalists reinvest all their profits. Industrial sector becomes more productive as it accumulates capital (production function shifts upward) so that the MPL is not only positive, but it increases with capital accumulation.

Wages in the urban industrial sector are constant at the subsistence level (due to surplus labor) until  $L = LA^*$  when the economy reaches the “Lewis turning point”. Before this happens, at a given (subsistence) wage, when industrial capital increases the amount of labor demanded in the sector rises.



(a) Modern (industrial) sector



(b) Traditional (agricultural) sector

# The Lewis Model of Structural Change

Main Idea: As long as the MPL in agriculture is zero, industrial capital can accumulate quickly promoting rapid structural change. This happens

Because:

- 1: Labor can be moved from agriculture to industry at no cost (i.e., agriculture output remain the same).
- 2: The labor market in the modern sector is competitive, and given excess labor in the agricultural sector wages remain at subsistence level regardless of demand.
- 3: Profits from the modern sector are reinvested only in that sector .
4. Capital does not substitute labor: with more capital more labor is demanded.

Industrial labor supply is perfectly elastic at  $W^*$  until demand reaches  $L_d(K_2)$ . Profits and capital investment in the modern sector will be high. Eventually, agriculture labor falls below  $L_A^*$  the MPL in the sector turns positive. Then, industry faces a rising wage rate.

# Limits of the Lewis Model

1) An initial scarcity of capital in the modern sector often limited its growth. This is because it is necessary to invest in many industrial subsectors at the same time. Even where capital is injected to jumpstart the process, results were very different across countries.

2) Modern sector profits not reinvested in domestic economy but abroad.

3) Lewis model suggests transfer of surplus labour is costless

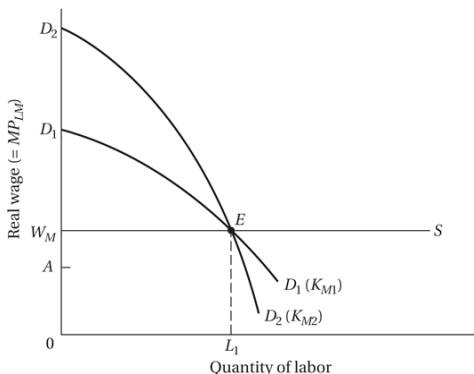
But if static surplus doesn't exist, incentives needed to induce remaining labour to work harder or longer hours to maintain agricultural output

Resource costs include investment goods in agriculture; consumer goods for peasant producers to buy and social capital in industrial sector to cater for migrants

Social cost of labour in surplus labour economies is therefore much higher than marginal product (or opportunity cost) of labour in agriculture

## Limits of the Lewis Model

4) Employment creation in the modern sector is increasing in capital accumulation. This will not happen with labor saving investment. Then all the extra income goes to the owners of capital.



## Limits of the Lewis Model

5) The Lewis model did not account for the role of institutions. Low wages are not enough for take off. Rule of law to protect investments and a reasonably well functioning public sector (no need to bribe officials e.g. to circumvent regulations) are essential. Government-directed industrialization programs gave opportunities to engage in patronage, creating wasteful jobs and privileges as a way to buy votes.

## Limits of the Lewis Model

6) The existence of close to unlimited surplus labor in agriculture and of constant urban wages are not observed. Urban wages tend to rise substantially over time, both in absolute terms and relative to average rural incomes, even in the presence of rising levels of open modern-sector unemployment. Large rural-urban migration flows creates informal sectors where productivity is not much larger than in traditional sector (**urban surplus labor**).

This may be the result of unionization or of efficiency wages effects.

# Limits of the Lewis Model

These limits may explain why, in contrast to the East Asian experience, none of the recent growth accelerations in Latin America, Africa, or South Asia was driven by rapid industrialization.

Recent growth accelerations were based on either rapid within-sector labor productivity growth (Latin America) or growth-increasing structural change (Africa), but rarely both at the same time.



# Efficiency Wage Hypothesis

The efficiency wage hypothesis explains why it can be convenient for firms to pay workers more than the market-clearing wage in order to increase their productivity or efficiency.

The link between efficiency and the wage may lead to unemployment in equilibrium ( i.e someone willing to work at the current wage will not be hired), which is very widespread in underdeveloped countries.

# Simple Efficiency Wage Model

Profits are given by:

$\pi = F(LE) - wL$  where  $E$ =Efficiency,  $L$ =Labour,  $w$ = wages

$$E = E(w) \quad (1)$$

To max  $\pi$  a firm will choose  $w$  such that:

$$\partial \pi / \partial w = LF'(LE(w))E' - L = 0$$

$$LF'(LE) dE/dw = L \quad (2)$$

and  $L$  such that:

$$EF'(LE) = w. \quad (3)$$

Combining 2 and 3 :

$$(dE/dw)w/E = 1. \quad (4)$$

There will be involuntary unemployment if at the wage  $w$  chosen by firms through (1 and 4) labor supply is bigger than  $L$  ( given by 2, once  $w$  and  $E$  are given).

## Links between wages and efficiency

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In poor countries low paid workers may be less efficient because less healthy.

"Stick" argument: if firms pay a wage rate above the market-clearing level so there is unemployment workers are afraid of losing their job, so do not shirk.

"Carrot" argument: gift exchange between workers and employers: I pay you more you are grateful and work harder.

Turnover argument: If replacing workers is costly firms will pay a wage rate above the market-clearing level so involuntary unemployment will diminish turnover. This can also explain dual labor markets: if low-skill firms have lower turnover costs (as seems likely), there may be a split between a low-wage, high-turnover sector and a high-wage, low-turnover sector.

Adverse selection argument: if workers' ability and their reservation wages are positively correlated then by offering a low wage a firm will end up with less able workers.

# Persistence of Underdevelopment

We will now introduce some key ideas and frameworks that can explain persistent underdevelopment

- Complementarities and coordination failures
- Big push model
- O'ring theory

# Coordination failure and the importance of complementarities I

## **Complementarity**

When two goods are complements, they experience joint demand - the demand of one good is linked to the demand for another good. Therefore, if a higher quantity is demanded of one good, a higher quantity will also be demanded of the other, and vice versa.

An action taken by one agent is complementary to the action taken by another agent if the first action increases the incentives for the second action and viceversa. Leading example is investments whose return depends on other investments being made by other agents.

## **Coordination failure**

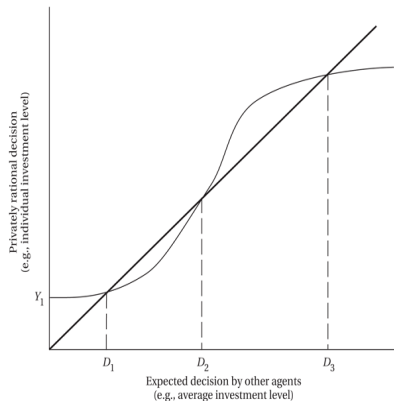
A coordination failure is situation in which agents' inability to coordinate their choices leads to an outcome (equilibrium) in which all agents worse off, compared to an alternative situation that is also technically possible (e.g. prisoner's dilemma).

**Prisoner's dilemma payoff  
matrix**

A \ B	B	
	B stays silent	B betrays
A stays silent	-1 / -1	-3 / 0
A betrays	0 / -3	-2 / -2

# Multiple Equilibria

Often complementarities and coordination failures may lead to multiple , equilibria. Many ME models can be diagrammed by graphing an S-shaped function and the 45° line



# Multiple Equilibria

Equilibria are

Stable: function crosses the  $45^\circ$  line from above

Unstable: function crosses the  $45^\circ$  line from below



# Coordination failure and the importance of complementarities II

Coordination is key when there are IRS to production, which is true any time there is an initial investment to do, whose size is independent of the scale of production( at least up to a point)

**Assume an economy has two possible states :**

- Only agriculture
- Railways, coal, steel and engineers (plus some agriculture)

**Consider undertaking separate investments:**

Railway alone – poor farmers cannot buy tickets.

Coal alone: how to transport it?

Steel alone: who will use it?

Only engineering school – no jobs for graduates.

**These investments are complementary: All of them are needed, at once!**

**Almost literally true in a closed economy, in an open economy, partly true**

# Multiple Equilibria From Aggregate Demand Externalities and the Big Push I

N sectors, in each sector  $i$  either

- modern technology (IRS)  $L_i = F + cQ_i$ ,  $c < 1$ , or  $Q_i = (L_i - F) / c$   
Monopolistic Competition
- or traditional technology (CRS),  $L_i = Q_i$ . Perfect Competition.  
Demand in each sector is  $P_i Q_i = \sum P_j Q_j / N = Y / N$ . Elasticity of demand = -1  
Under both regimes  $W=1$  (for simplicity) and  $P_i=1$ . Monopoly price cannot go above 1 because of competition by traditional firms.

# Multiple Equilibria From Aggregate Demand Externalities and the Big Push II

- **Scenario A : Big Push**

$\pi_i = Q_i(1 - c) - F$  can be positive only if  $Q_i$  is big enough. If all firms modernize then  $L_i = L/N$  and  $Q_i = (L/N - F)/c$ . Let us assume that this level of demand is sufficient to guarantee positive profits  $\pi_i = (L/N - F)(1 - c)/c - F > 0$ .

Modernization happens.

- **Scenario B : (No) business as usual**

Suppose all firms but firm  $i$  choose traditional technology: then  $Q_i = L/N$ , but then  $\pi_i = (L/N)(1 - c) - F < 0 < (L/N - F)(1 - c)/c - F$ .

Modernization in isolation is not possible.

# Multiple Equilibria From Aggregate Demand Externalities and the Big Push III

Interpretation :

Equilibrium with TT as a “development trap” where due to a coordination failure economy remains in “underdevelopment”

Equilibrium with MT corresponding to “industrialization”: societies that can *coordinate* will industrialize. Can the government do it?

# Big Push Mechanisms

There is a need to

- 1) raise total demand and
- 2) in particular shift demand toward manufacturing goods (usually produced in urban areas)
- 3) reduce fixed costs of entrants: more demand help defray costs of essential infrastructure (a similar mechanism can hold when there are costs of training, and other shared intermediate inputs)

## Complex Coordination Failures:

1) Intertemporal effects. Problem made worse if  $F$  is to be paid in advance and no credit is available.

Take off possible only when  $N$  entrepreneurs have each enough capital.

2) Urbanization effects. Historically one needs urbanization to achieve industrialization. Clearly coordination made easier by proximity. This is also linked to 3)

3) Infrastructure effects. Infrastructures, such as roads, railroads, and ports, are not tradable by definition. When one product sector industrializes, it increases the size of the market for the use of infrastructure. But there will be not enough users for infrastructure in the absence of industrialisation. In many ex colonies transport infrastructure (built e.g. just for the commercialization of natural resources) not suited to modern needs.

## Further problems/issues of Coordination Failures:(low level equilibrium traps)

4) Under-training effects a) Entrepreneurs know workers they train may go to rival firms. b) Workers do not know whether firms will make investments requiring the skills they acquire. To solve this problem not openness to trade but free mobility of labor is useful: however→ brain drain.

5) Is the model valid in an open economy, in which demand for products can come from abroad? Yes, to the extent that it is difficult for infant industry to compete with foreign firms, without any producing experience and international reputation. Infrastructure needed.

- Why not a super entrepreneur, who coordinates the whole? Capital market failures, agency costs/asymmetric information, communication failures, limits to knowledge explains why such a figure has never been historically observed.
- Aggregate demand externalities are important in all market economies.

## Further problems/issues of Coordination Failures:(low level equilibrium traps)

1) Behaviour and norms - You can have equilibria where most people resist corruption, and so corruption is rare; and you can have equilibria where few resist corruption, and corruption is common. How to move from a bad to a good equilibrium?

Traditional norms ( ie have as many children as possible) may not be functional to a modern society but they are embedded in religion and are therefore very difficult to change without state intervention.

2) Linkages : One government policy for solving coordination problems is to focus on key industries. The implementation could be through public enterprises or incentives for multinational firms as Asian Tigers since late sixties.



## Michael Kremer's (1993) O-Ring Theory

Basic insight: modern production (economy) requires many activities (sectors) be done well together: a form of strong complementarity. A small faulty part caused the Challenger shuttle to explode in 1986. Crucial difference from standard efficiency unit formulation of labor skill: cannot substitute quantity for quality within a single production chain. Inside a firm  $n$  tasks to produce an output/implement a production process. Order tasks by level of skill  $q$  (assume between 0 and 1)  $q$  either a kind of a quality index or the probability of completing the task successfully

# O-Ring Theory

Under this assumption we will have positive assortative matching: workers with high skills will work together, because they will then be more productive. This can be seen easily if we imagine a four-person economy. Suppose that this economy has two high-skill  $q_H$  workers and two low-skill  $q_L$  workers. With assortative matching total product will be  $q_H^2 + q_L^2$ , without assortative matching total product will be  $2q_H q_L$ . As  $q_H^2 + q_L^2 - 2q_H q_L = (q_H - q_L)^2 > 0$  total output will always be higher under matching. Comes from math rule that, given sum, product is higher if numbers are closer.

# O-Ring Theory

More general case:  $n$  ( exogenous but can be endogenized) workers

$$y = Bn\prod_{i=1}^n q_i$$

Define  $B$  as the output per worker if all tasks are performed perfectly. In this case, total output would be  $nB$ . Labor market is competitive and labor supplied inelastically.

# O-Ring Theory

Competitive firms face a wage schedule  $w(q)$  and price of one. They solve:

$$\max_{\{q_i\}} \pi = Bn \prod_{i=1}^n q_i - \sum_{i=1}^n w(q_i),$$

$$\text{FOC: } d\pi/dq_i = 0, Bn \prod_{j \neq i}^n q_j = w'(q_i), \text{ for all } i.$$

$$\text{Also: } d^2\pi/(dq_j dq_i) = Bn \prod_{k \neq j \neq i}^n q_k > 0$$

A worker's productivity increases in the skill of workers he is matched with. Hence, firms with high  $q$  workers in the first  $n-1$  tasks place the highest value on having high-skill workers in the  $n$ th task, so they bid the most for these workers. Hence, all workers employed by any single firm have the same  $q$ .

# O-Ring Theory

Search for equilibria can be restricted to those allocations of workers to firms in which all workers employed by any single firm have the same  $q$ . Given this positive assortative matching, the first order condition

$Bn\Pi_{j \neq i}^n q_j = w'(q_i)$  can be written as

$dw/dq = q^{n-1}nB$ . By integrating we get:  $w(q) = \int_0^q t^{n-1}nBdt + C$  or  $w(q) = q^n B + C$

Clearly  $w(0) = 0$  so  $w(q) = q^n B$ , and total wage bill  $nq^n B$

so  $\pi = Bn\Pi_{i=1}^n q_i - \sum_{i=1}^n w(q_i) = 0$

Hence, profits are zero for all firms. Firms indifferent regarding the skill level of their workers as long as their labor force is of homogeneous skill. However a firm not combining optimally workers will incur into losses.

## O-Ring Theory

O-ring production function provides a mechanism through which small differences in worker skill create large differences in productivity and wages:

1) It therefore helps to explain enormous wage and productivity differentials between rich and poor countries. Because wages increase in  $q$  at an increasing rate, wages will be more than proportionally higher in developed countries than would be predicted from standard measures of skill. In fact:

$$w(q) = q^n B, w'(q) = nq^{n-1} B, w''(q) = (n-1)nq^{n-2} B > 0, \text{ since } n > 1$$

2) When those around you have higher average skills, you have a greater incentive to acquire more skills. From this type of complementarity multiple equilibria can emerge.

3) Firms coexist while hiring different qualities of workers and producing different quality goods. But workers are presumably better off with a higher  $q$  and  $w$ . A whole country can get caught in low-production-quality traps. There could thus be a case for an industrial policy to upgrade quality, actually implemented by some East Asian countries in the past.

# O-Ring Theory

- 4) Suppose  $y$  represents an integrated chain of production, each  $q$  being done by a firm. But then inefficiency in a firm will compromise the quality of the whole chain. O-ring effects magnify the impact of local production bottlenecks because such bottlenecks can have a multiplicative effect on other productions. Trade can help to avoid some bottlenecks so trade barriers can hurt development. Economies closed to trade, such as India or China before the 1980s, have not fared as well as the four Asian Tigers that took advantage of foreign inputs.
- 5) Efficiency wages are important (effect of shirking by one worker can be disastrous with this type of production function).
- 6) Explains why firm size and wages are positively correlated within and across countries. When skills are scarce, a firm is less likely to choose a technique with higher value but complicated production technology with many tasks, because the costs of doing any one of those tasks poorly are magnified.

# International Dependence Theory

Dependency theory began in Latin America and enjoyed vast popularity between the 50s and the 70s and again with the antiglobalist movement at the start of this century.

It can be defined as the attempt to explain underdevelopment and inequality among nations by the working of the international system. Unlike not only the one sector models of growth but also the Stage Theories or the Structural Change Models of economic development, which considered underdevelopment as a result of internal constraints such as insufficient savings, investment or lack of infrastructure, skill or education, the proponents of the Neocolonial Dependence model portray third world underdevelopment as an externally induced phenomenon.



# International Dependence Theory

The first variety of Dependency Theory was developed in the late 1950s at the UN Economic Commission for Latin America, directed by Raul Prebisch.

The initial explanation for the lack of convergence was that poor countries exported primary commodities to the rich countries who then manufactured products out of those commodities and exported them back to the poorer countries. In this way poorer countries would never be earning enough from their export earnings to pay for their imports. The solution for poorer countries were programs of import substitution to produce the manufactured products. Problems: the internal markets of the poorer countries were not large enough to support economies of scale not to mention the missed opportunity to import new technologies.

# International Dependence Theory

Very different thinkers from liberal reformers (Prebisch), to Marxists (Andre Gunder Frank), and world systems theorists (Wallerstein) have contributed to the theory whose core can be described as follows:

1. There are two sets of states (dominant/dependent, center/periphery or metropolitan/satellite). The dominant states are the advanced nations, the dependent states are poor states of Latin America, Asia, and Africa.
2. The underdevelopment of the poor countries is not just undevelopment (e.g land unused as in North America before colonization). Poor states were coercively integrated into the European economic system as providers of raw materials and/or cheap labor and even today use resources in ways imposed by foreign actors (from multinational corporations to experts from international organizations).

# International Dependence Theory

Indeed the so called False Paradigm Model attributes third world's underdevelopment to faulty advice provided by uninformed, biased, and ethnocentric experts from IMF and WB.

3. The diversion of resources in the dependent states over time (dependent relationships started in the fifteenth century) is maintained through the power of local elites often trained in the dominant states and sharing similar values and culture. While these elites are often corrupt, some of their members may, as may foreign experts, sincerely believe that the key to economic development lies in following the prescriptions of liberal economic doctrines.

# International Dependence Theory

## Policy implications

1. The success of the advanced industrial economies does not serve as a model for the currently developing economies, against the the 1950s and 1960s consensus represented by Walt Rostow in his book, *The Stages of Economic Growth*.

Dependency theory suggests that the success of the richer countries was a contingent and specific episode in global economic history, only made possible by highly exploitative colonial relationships. This view has been recently articulated by the Harvard historian Steven Beckert in his influential book *Empire of Cotton* ( Penguin 2014).

# International Dependence Theory

2. The neoclassical model of economic growth pays relatively little attention to the question of distribution of wealth. Its primary concern is on efficient production and it assumes that the market will allocate the rewards of efficient production in a rational and unbiased manner. Within the dependency framework there is a greater concern for whether economic activity is actually benefitting the nation as a whole.

Dependency theorists emphasize social indicators (life expectancy, literacy, infant mortality) far more than economic indicators.

3 .Greater integration into the global economy is not necessarily a good choice for poor countries. Often this policy perspective is viewed as an endorsement of a policy of autarky. However some experiments with autarky such as China's Great Leap Forward have been an utter failure. Rather a policy of self-reliance should consist in controlling interactions with the world economy.

# Dualism

Both structural change theorists and International dependence theorists use the concept of dualism but decline it differently. Dualism consists the existence and persistence of divergences between rich and poor nations and rich and poor peoples on various levels. Specifically, the concept of dualism may refer too different sets of conditions, of which some are “superior” and others “inferior” coexisting in a given space. Examples of this kind of dualism include Lewis’s urban and rural sector dualism, the coexistence of wealthy, highly educated elites with mass of illiterate poor people; and the dependence notion of the coexistence of powerful wealthy industrialized nations with weak, impoverished peasant societies in the international economy.

Although both the stages-of –growth theory and the structural-change models implicitly make the assumption that this dualism is transitory facts of growing international inequalities seem to refute it.

The interrelations between the superior and inferior elements are such that the existence of the superior elements does little or nothing to pull up the

# The Neoclassical Counter Revolution

During the 1980s, many governments both in the Anglo-American world and Western Europe and in the developing world adopted a free-market theory of economics.

This has been referred to as the Neoclassical Counterrevolution. The theory supported freer markets, private ownership, while opposing statist planning and government regulation of economic activities. Exponents of the approach gained the majority in the boards of the World Bank(WB) and the International Monetary Fund(IMF), while the International Labour Organization (ILO), the United Nations Development Programme (UNDP), and the United Nations Conference on Trade and Development (UNCTAD) lost influence.

# The Neoclassical Counter Revolution

While Dependence theorists advocated reforming the international economic system, restructuring of dualistic developing economies, an increase in foreign aid, attempts to control population growth and fight poverty the neoliberals maintained that development requires instead privatising state-owned enterprises, promoting free trade and export expansion, welcoming investors from developed countries, and eliminating government regulations and price distortions in factor, product, and financial markets.

An important component of the neoclassical counterrevolution was public-choice theory, also known as the new political economy approach. Public-choice theory assumes that politicians and bureaucrats ( as indeed all economic agents) pursue only their self-interest and will use any means to consolidate their power. Citizens and special interests will use political influence or bribes to obtain “rents” from the government (e.g., import licences). The net result is not only a misallocation of resources but also a general reduction in individual freedoms.



# The Neoclassical Counter Revolution

The "market-friendly" approach is a less extreme version of the neoclassical counterrevolution proposed in the 1990s by World Bank economists, many of whom were free marketeers in the 1980s. This approach recognises that there are many imperfections in developing-country product and factor markets and that governments do have a key role to play for example, by investing in physical and social infrastructure, health care facilities, and educational institutions.

# The Washington Consensus

The Washington Consensus, a term coined in 1989 by John Williamson, is a set of ten economic policy prescriptions constituting the "standard" reform package proposed by institutions such as the International Monetary Fund (IMF), World Bank and United States Department of the Treasury. The prescriptions encompassed policies in such areas as macroeconomic stabilization, economic opening with respect to both trade and investment, and the expansion of market forces within the domestic economy.

# Ten Prescriptions

- Fiscal policy discipline, no large fiscal deficits relative to GDP;
- Public spending in key pro-growth areas, like primary education and health care and infrastructure investment rather than in subsidies;
- Tax reform, broadening the tax base and adopting moderate marginal tax rates;
- Interest rates market determined and positive (but moderate) in real terms;
- Competitive exchange rates;
- Trade liberalization: liberalization of imports, elimination of quantitative restrictions (licensing, etc.); trade protection provided by low and relatively uniform tariffs;
- Liberalization of inward foreign direct investment;
- Privatization of state enterprises;
- Deregulation: abolition of regulations restricting competition, except for those justified on safety, environmental and consumer protection grounds, and prudential oversight of financial institutions;
- Legal protection for property rights

# The Washington Consensus

The phrase "Washington Consensus" came by many to be identified with the neoclassical counterevolution. Williamson view is different. "I never intended my term to imply policies like capital account liberalization... , monetarism, supply-side economics, or a minimal state (getting the state out of welfare provision and income redistribution), which I think of as the quintessentially neoliberal ideas."

<https://piie.com/commentary/speeches-papers/did-washington-consensus-fail>

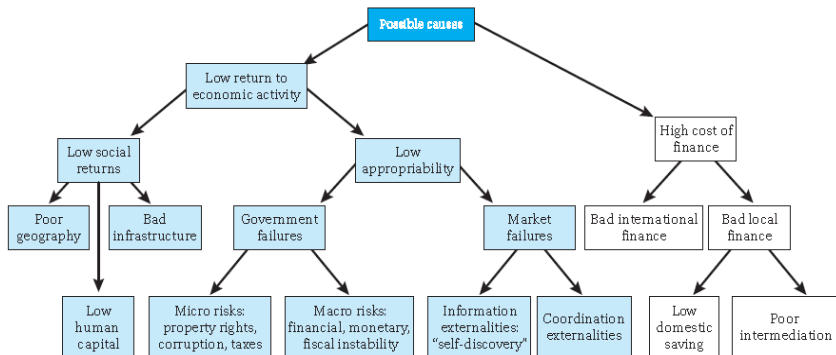
# Growth Diagnostics

The often ideologically charged controversies between Dependence theorists and neo-classicists are a thing of the past and more balanced and nuanced views tend to prevail.

Indeed the idea of “one size fits all” policy for economic development is now generally recognized as a myth. A key problem is to identify the different constraints each country faces. If a developing nation experiences a low level of private investment and growth, what steps should it take? Ricardo Hausmann, Dani Rodrik, and Andrés Velasco (HRV) propose a growth diagnostics decision tree framework to guide its action

**FIGURE 4.3** Hausmann-Rodrik-Velasco Growth Diagnostics Decision Tree

*Problem: Low levels of private investment and entrepreneurship*



Source: Ricardo Hausmann, Dani Rodrik, and Andrés Velasco, "Getting the diagnosis right," *Finance and Development* 43 (2006), available at <http://www.inf.org/external/pubs/ft/fandd/2006/03/hausmann.htm>. Used with permission.

# Growth Diagnostics

At the first stage, countries are divided between those with low returns to investment and those with high costs of finance. Low returns may be due to a) 1a) geography (tropical pests, mountains and other physical barriers, distance to world markets, and landlocked status), 2a) illiteracy or innumeracy or 3a) insufficient infrastructure (roads, bridges, railroads, ports, telecommunications). b) Or may be due to an appropriability problem due to 1b) government or 2b) market failures (we have given an example with big push model). 1b) can take the form of: a micro-risk (weakness of rule of law, corruption, confiscatory taxation ) or a macro-risk (macroeconomic instability).

# Growth Diagnostics

As to the high cost of finance. Here the problem may be 1) bad international finance—inadequate access to foreign sources of capital or problems with outstanding debt; or 2) bad local finance, low domestic saving, or poor intermediation owing to an inadequate or overregulated banking system.

In sum, one size does not fit all in development policy.

Strategies focusing on market liberalization and opening up the economy ( the Washington Consensus) can be most effective when returns could be high but are not because of government-imposed excessive taxes and restrictions. Finally, strategies focusing on education and industrial policies can be most effective when private returns are low not because of what a government does (errors of commission) but because of what a government does not do (errors of omission).

The World Bank offers a set of growth diagnostics exercises at <http://web.worldbank.org/>.