Economic Analysis

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Why Economic Analysis?

Comparative Economic Growth

In Current Prices at Official Rates of Exchange

	Ghana	South Korea	Ethiopia	Malaysia	Côte d'Ivoire	Thailand
1960						
GDP	$1,118,598,999	$3,761,538,462	$933,000,000	$2,209,477,124	$569,866,343	$2,554,399,243
Population	6,703	24,954	20,004	8,368	3,619	26,634
GDP per capita	$167	$151	$47	$264	$157	$96

	Ghana	South Korea	Ethiopia	Malaysia	Côte d'Ivoire	Thailand
1995						
GDP	$6,315,000,000	$455,476,000,000	$5,287,000,000	$85,311,000,000	$10,069,000,000	$167,056,000,000
Population	17,100	44,900	56,400	20,100	14,000	58,200
GDP per capita	$369	$10,144	$94	$4,244	$719	$2,870

In $U.S. 1995 dollars at Official Rates of Exchange

	Ghana	South Korea	Ethiopia	Malaysia	Côte d'Ivoire	Thailand
1960						
GDP	$5,751,576,867	$19,340,959,194	$4,797,269,817	$11,360,619,421	$2,930,120,692	$13,134,129,036
Population	6,703	24,954	20,004	8,368	3,619	26,634
GDP per capita	$858	$775	$240	$1,358	$810	$493

	Ghana	South Korea	Ethiopia	Malaysia	Côte d'Ivoire	Thailand
1995						
GDP	$6,315,000,000	$455,476,000,000	$5,287,000,000	$85,311,000,000	$10,069,000,000	$167,056,000,000
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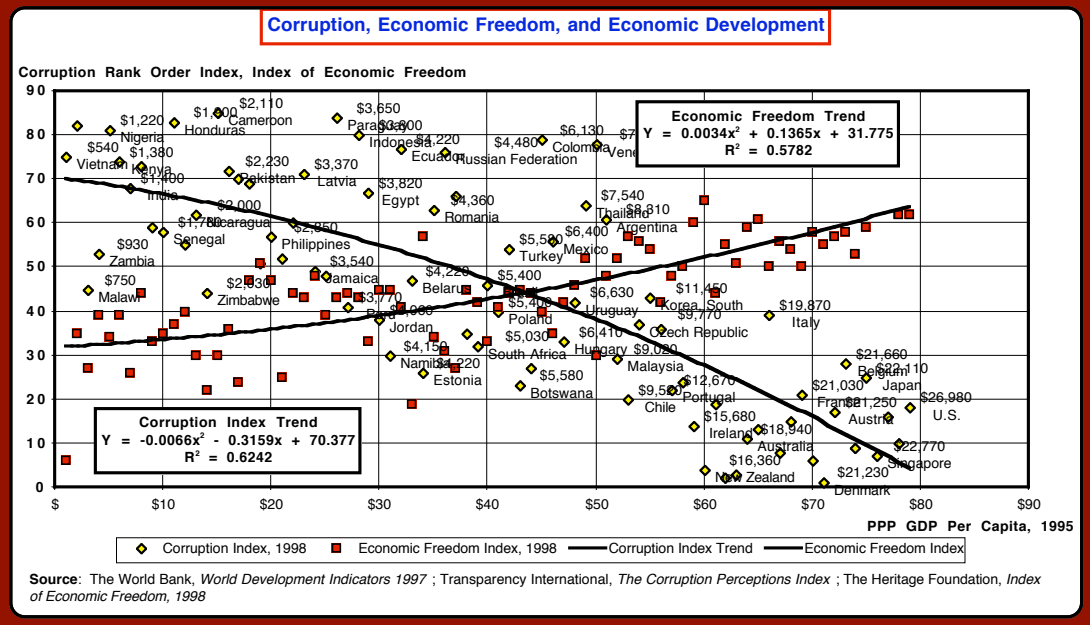
Annual rates of Growth of population, and economic variables (in $U.S. constant 1995):

	Ghana	South Korea	Ethiopia	Malaysia	Côte d'Ivoire	Thailand
GDP	0.27%	9.45%	0.28%	5.93%	3.59%	7.54%
Population	2.71%	1.69%	3.01%	2.54%	3.94%	2.26%
GDP per capita	-2.38%	7.62%	-2.65%	3.31%	-0.34%	5.16%

Sources: World Bank, *World Tables* , various years. (Washington, D.C.: World Bank, 1976, 1997)
GDP (the Gross Domestic Product) is measured in $U.S. millions
Population is expressed in thousands

- **What are the choices of instruments and institutions to achieve an allocation of scarce resources to meet unlimited goals?**
- **We live in a world of globalization in which our economic and social circumstances are increasingly interdependent**
- **The choices we make today will affect generations in the future and for which we carry a special responsibility**

The Quality of Political and Social Governance Defines The Range of Economic Possibilities

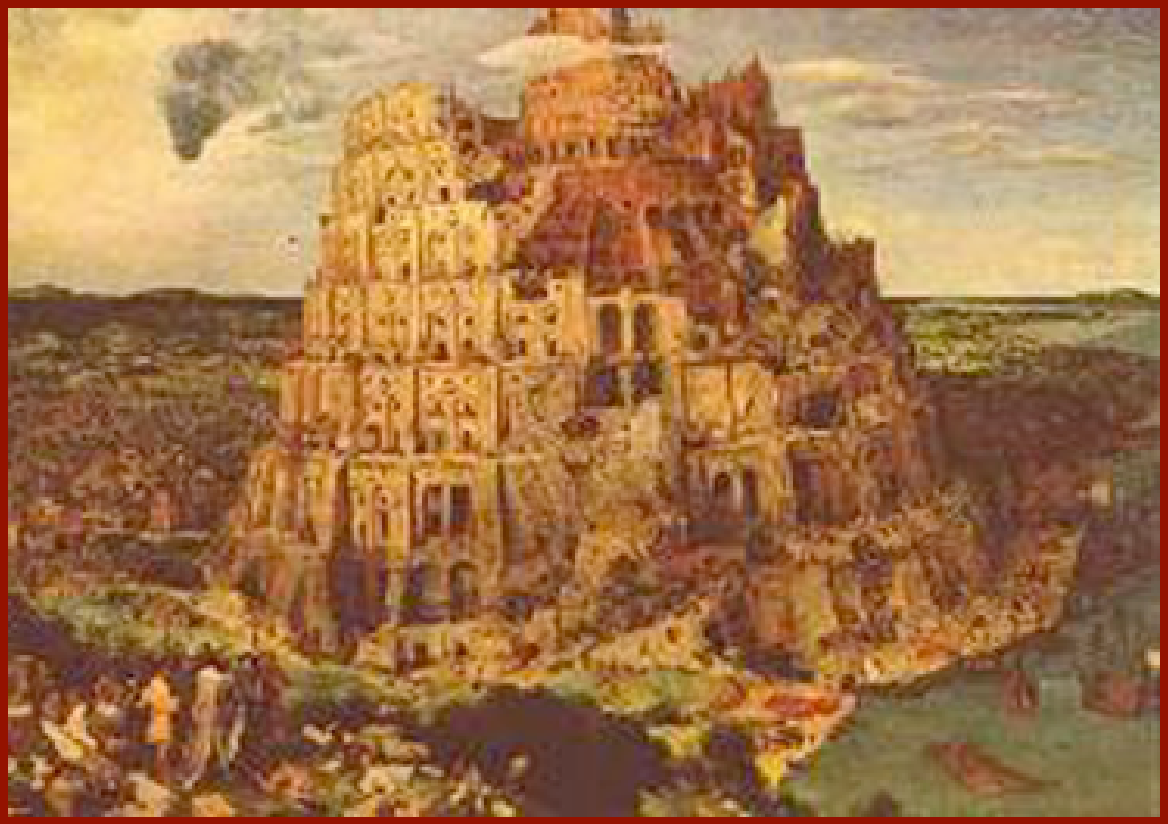


- Every society seeks an improvement in living conditions, be it in terms of life expectancy, the level of real per capita income, or in terms of an equitable distribution of income
- If the state intervenes in the economy, it does not necessarily follow that its actions will result in an improvement in living conditions
- Principles of governance such as transparency and political democracy are important conditions for an efficient and equitable economy but the order of their implementation will vary according to the circumstances of individual countries

On the Economic Functions of the Public Sector

- The roles of government vary in time and space
- A principal reason for this variation is the level and range of financial, economic, political, and environmental risk
- The greater is the development of tools to manage risk, the smaller the need for government intervention in the economy
- The challenge is to undertake an analysis of economic and financial institutions in order to determine if the contractual systems lend themselves to efficient and equitable outcomes.

Economic Functions of the Public Sector:

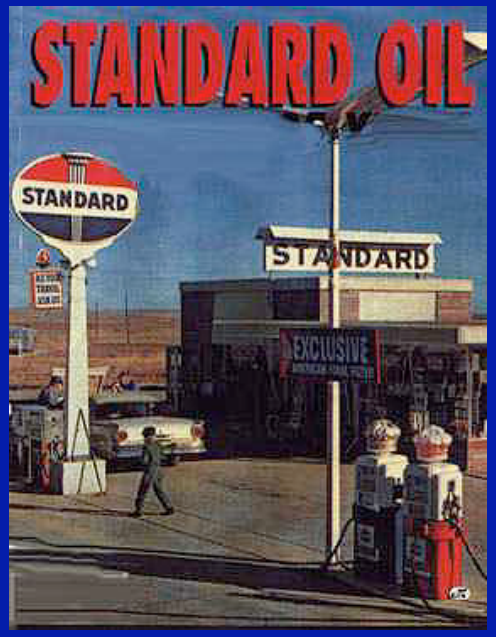


1. Create and maintain institutions and incentives appropriate to the allocation of resources within a market framework

Economic Functions of the Public Sector

2. Promote distributive justice in the allocation of resources

Economic Functions of the Public Sector



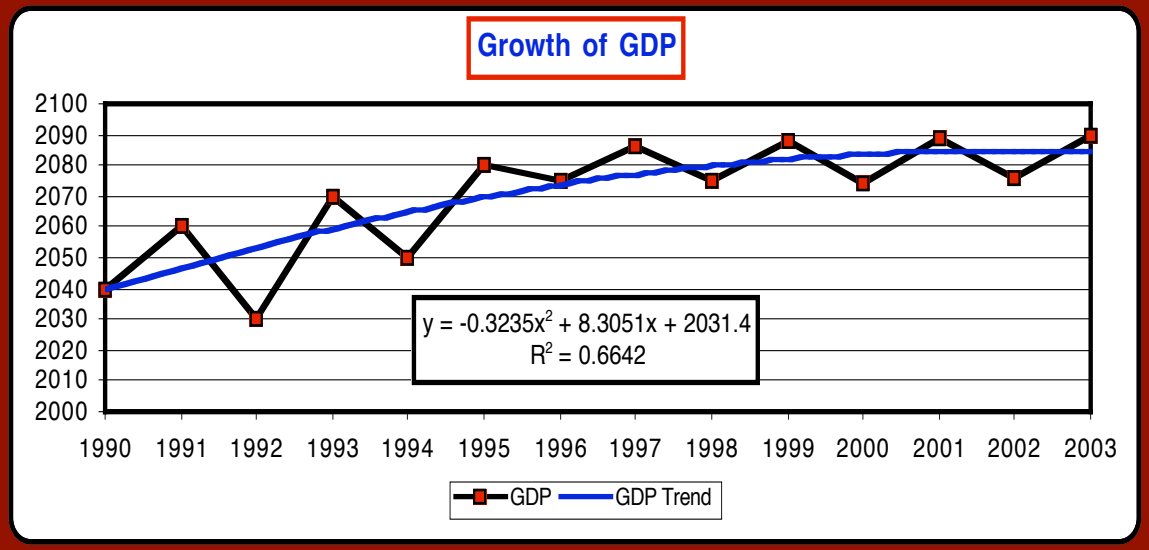
3. Promote an efficient allocation of resources through a competitive economic policy

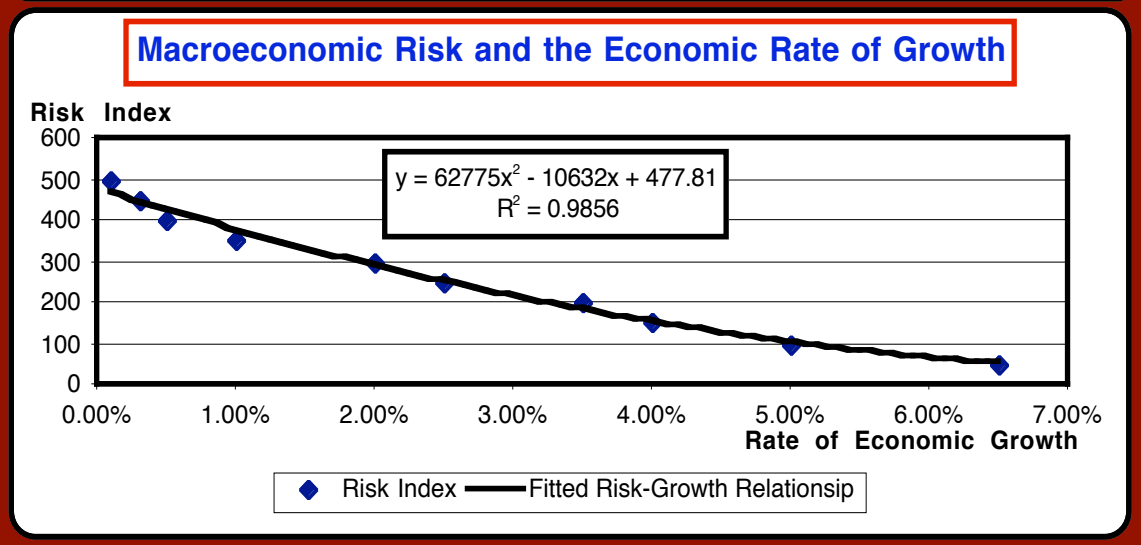
Economic Functions of the Public Sector

IFAN, Dakar, Senegal

4. Re-allocate resources to affect the optimal composition of production of goods and services

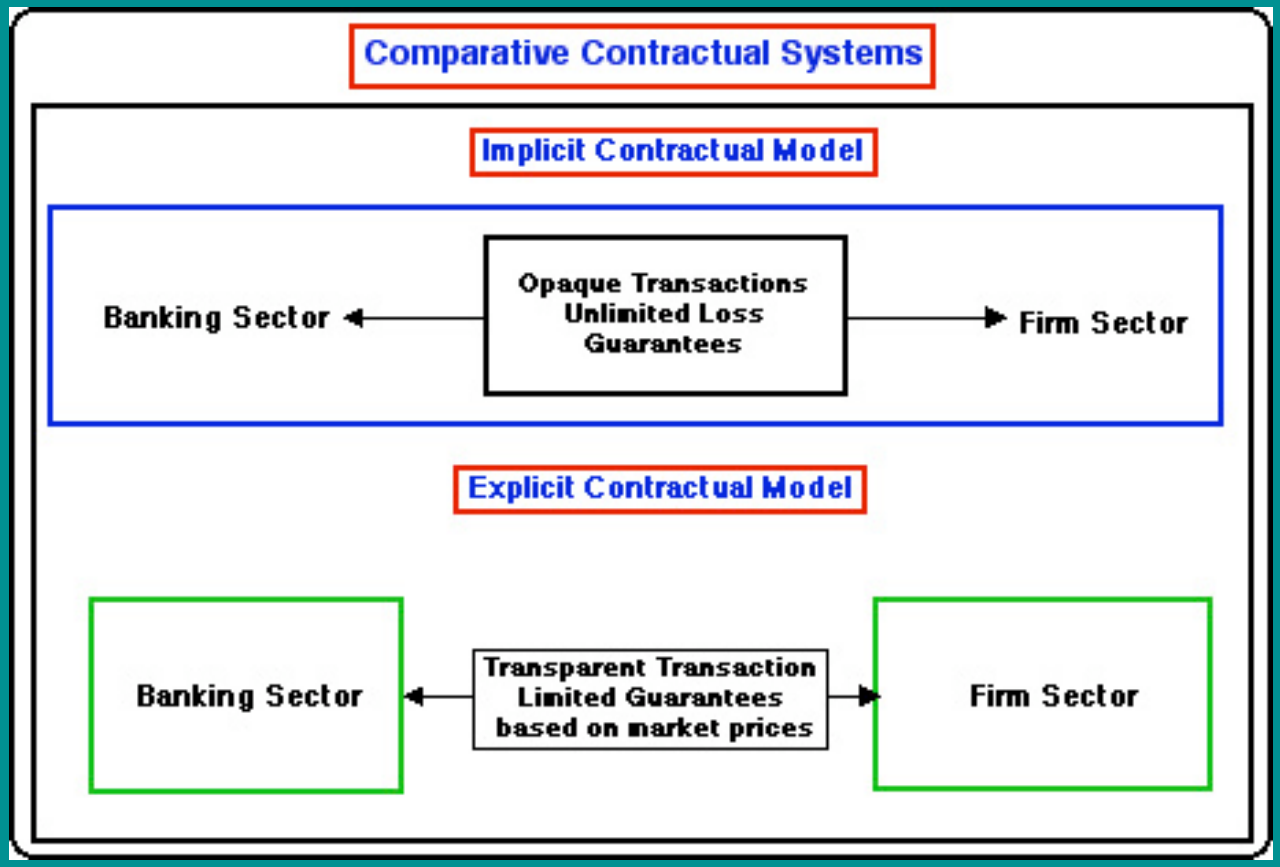
Economic Functions of the Public Sector





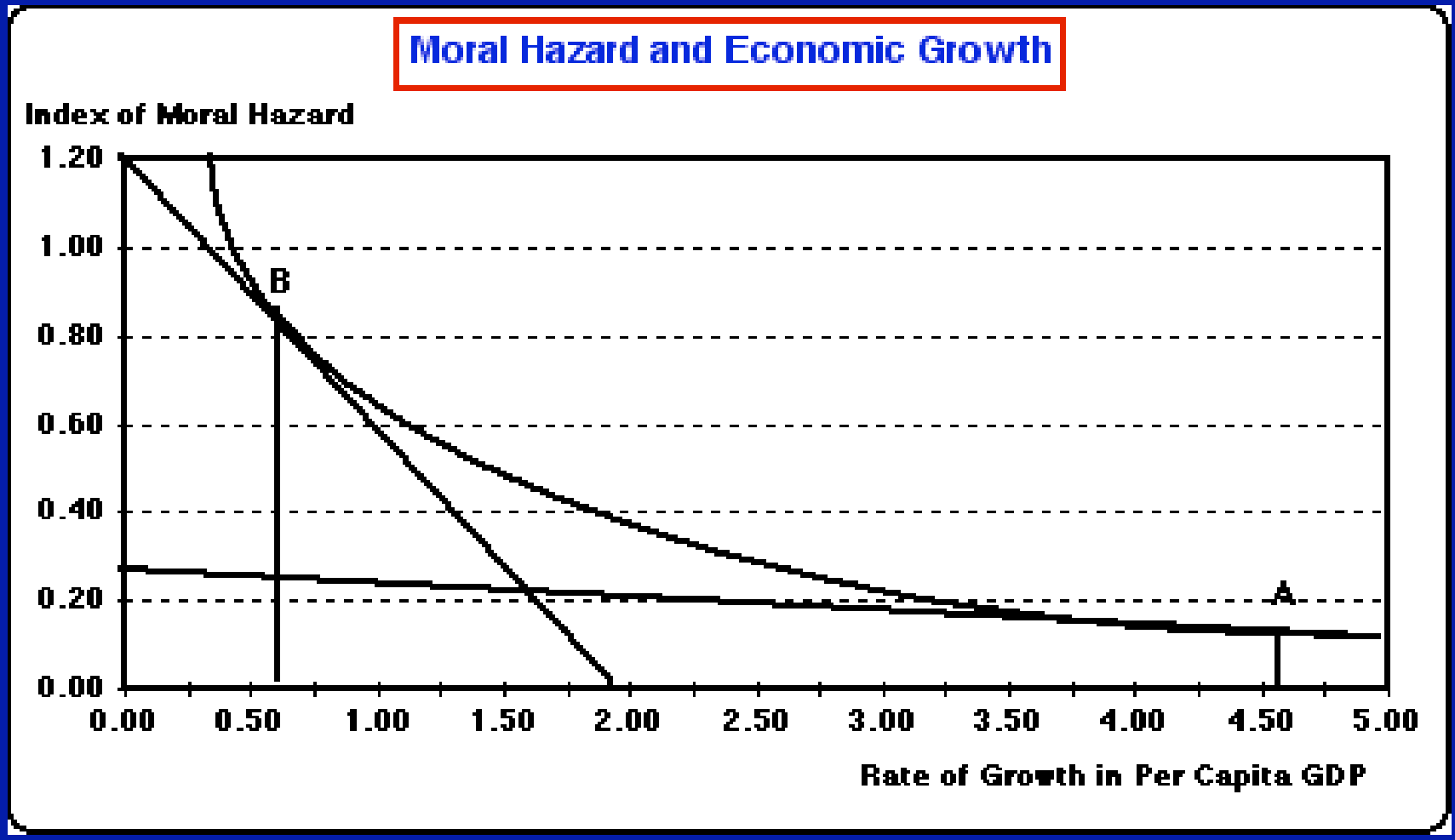
5. **Use monetary and fiscal policy to promote economic stabilization, growth, and socio-economic development**

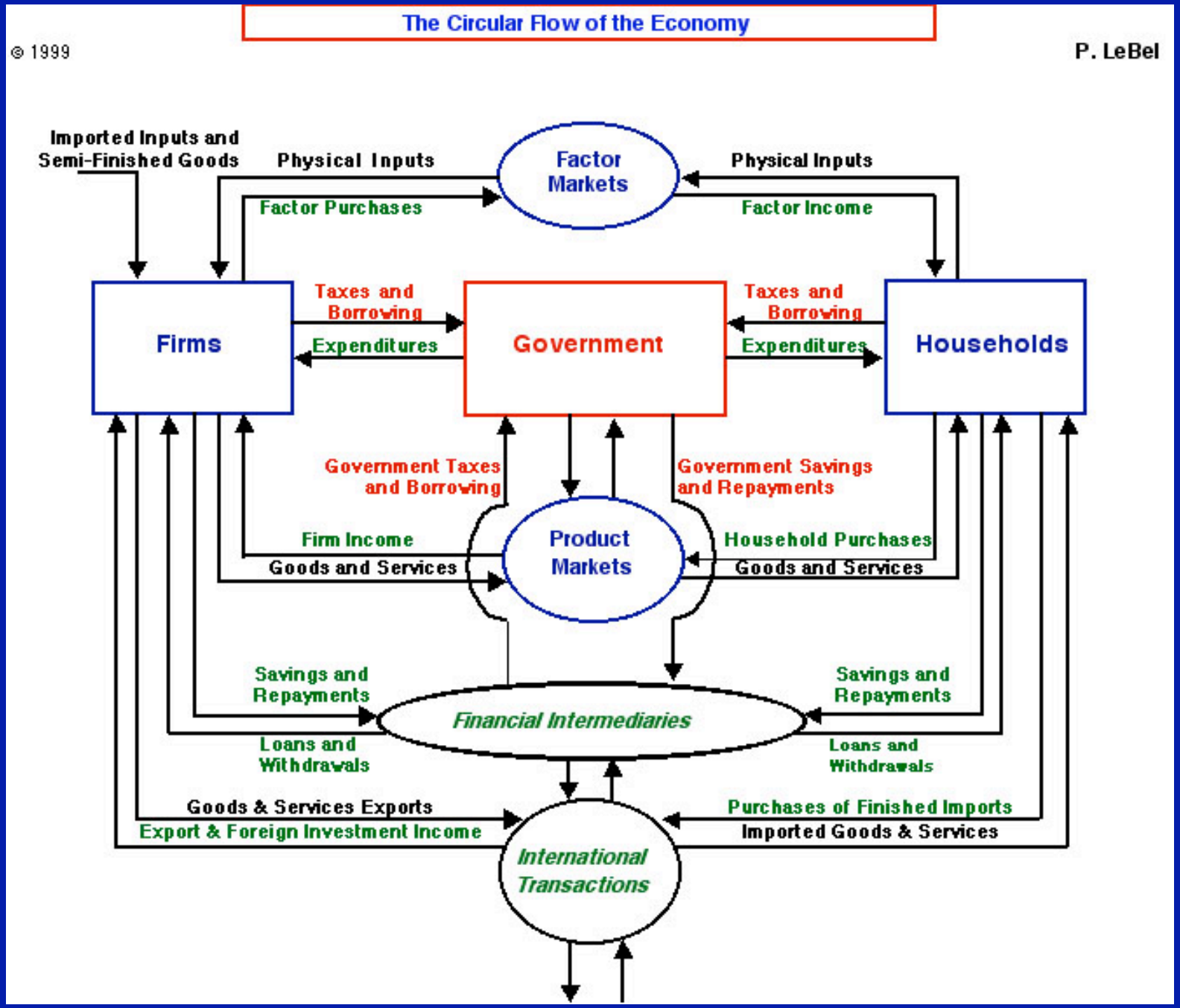
Asymmetric Information and Contractual Inefficiency



Risk arises in a contractual system in which information is both imperfect and asymmetrically distributed. In such a situation, contracting institutions fail to achieve an efficient allocation of resources, from which arises the need to establish rules and contracting products that can better manage the level of underlying risk.

Contractual Disequilibrium in the Presence of Asymmetric Information




The Circular Flow of the Economy
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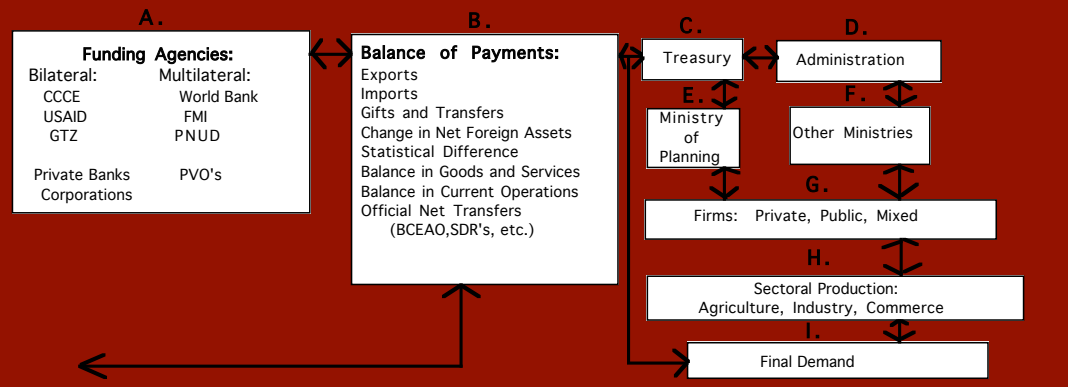
Imported Inputs and Semi-Finished Goods
Physical Inputs
Factor Markets
Physical Inputs
Factor Purchases
Factor Income
Firms
Taxes and Borrowing
Expenditures
Government
Taxes and Borrowing
Expenditures
Households
Government Taxes and Borrowing
Government Savings and Repayments
Firm Income
Goods and Services
Product Markets
Household Purchases
Goods and Services
Savings and Repayments
Financial Intermediaries
Savings and Repayments
Loans and Withdrawals
Loans and Withdrawals
Goods & Services Exports
Export & Foreign Investment Income
International Transactions
Purchases of Finished Imports
Imported Goods & Services

The Institutional Framework of Economic Decisions

Figure 2

Operational Structure of Economic Planning



A. Funding Agencies

1. CCCE - Caisse Centrale de la Coopération Economique (France)
2. FED - Fonds Européens de Développement
3. CILSS - Comité Inter-étatique pour la lutte contre la sécheresse du Sahel
4. IBRD - World Bank
5. IMF - International Monetary Fund
6. USAID - U.S. Agency for International Development
7. UNDP - United Nations Development Programme
8. Others: UNESCO, UNIDO, FAO, Paris Club, London Club, Stabex, etc.

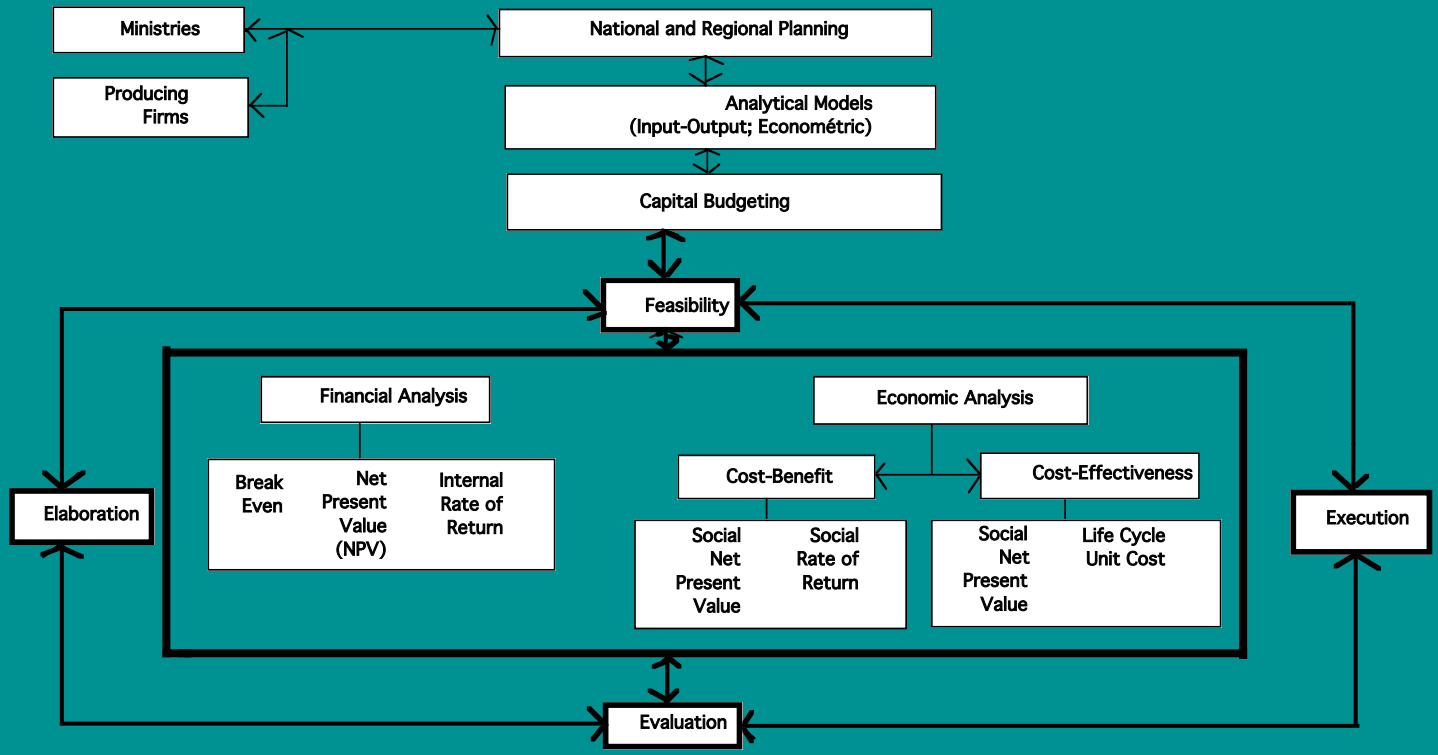
I. Final Demand: Under the United Nations system, we can derive the principal economic aggregates, of which one of the most often cited is the GNP (Gross National Product), as well as the GDP (Gross Domestic Product). The Gross National Product is defined as:

Y = C + I + G + E - M, where:
Y = Final Demand, or GNP, of which:
C = Consumption of finished goods and services
I = Gross Private Domestic Investment
G = Consumption and investment expenditures by the public sector
E = les Exports of goods and services
M = les Imports of goods and services

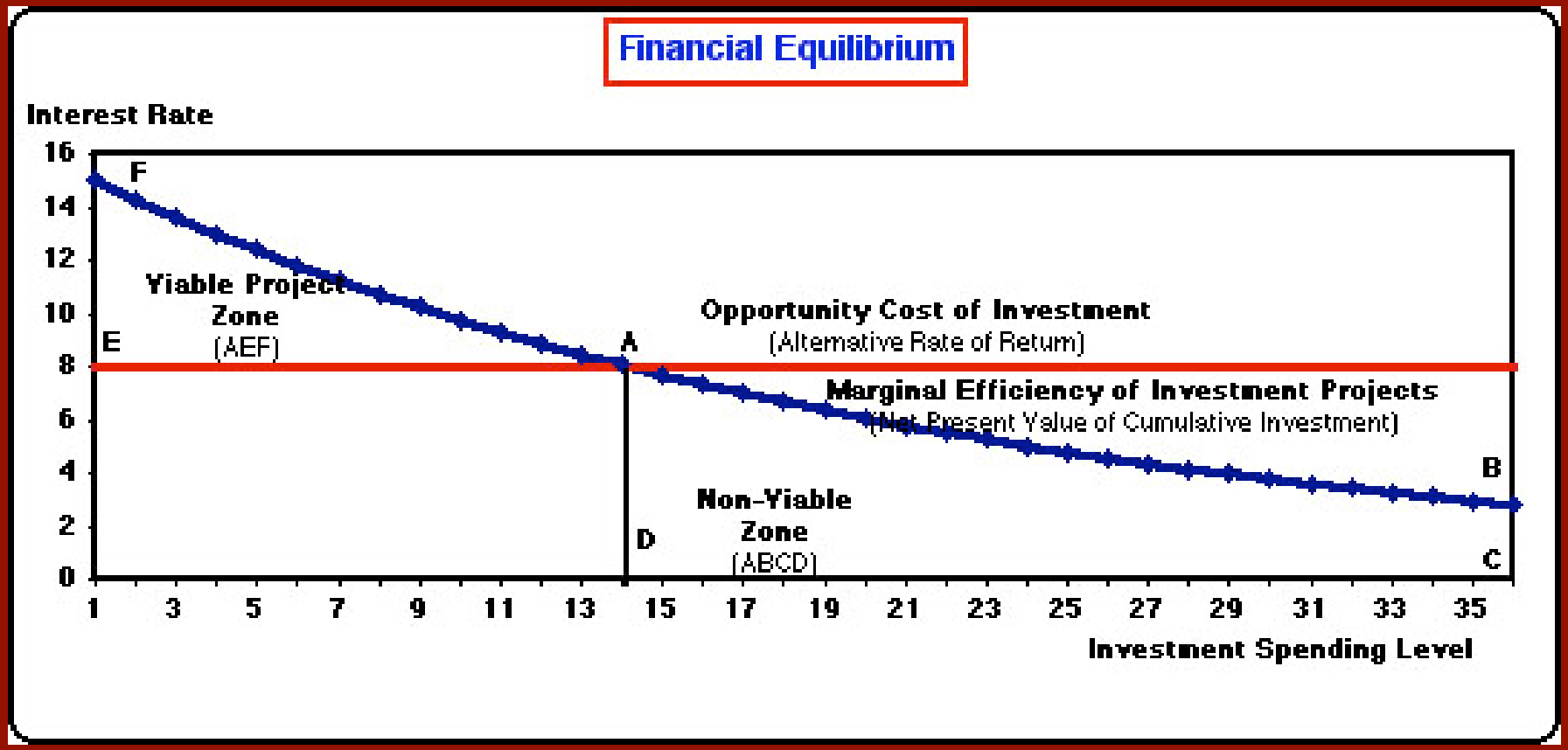
The Project Institutional Environment

Figure 3

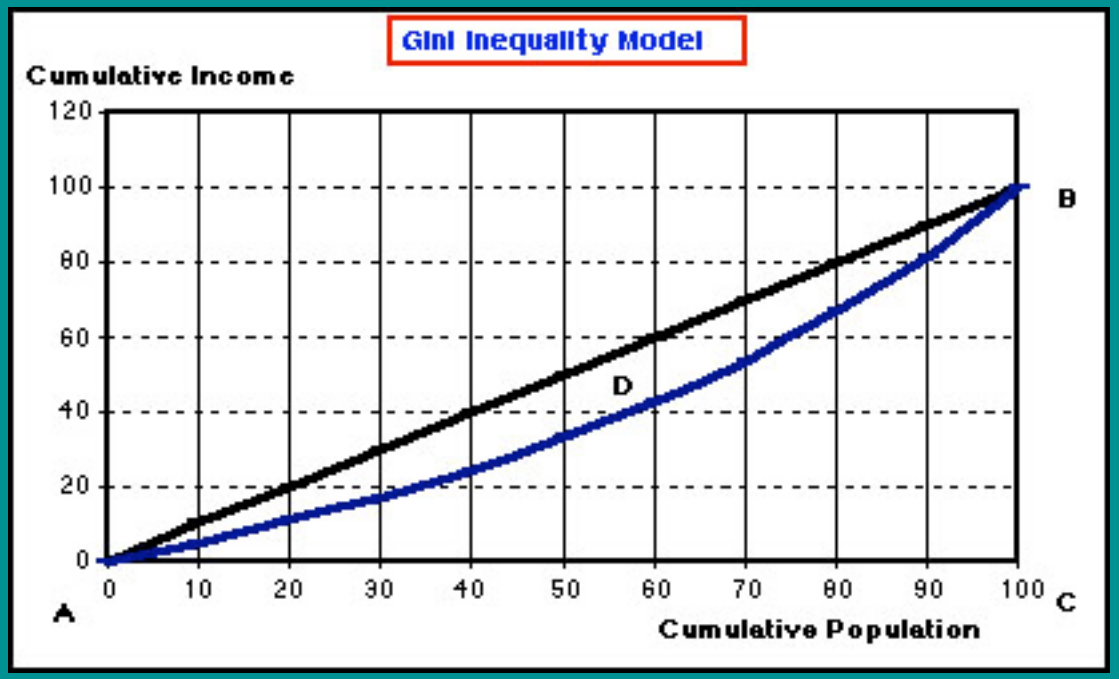
The Development Project Decision Environment



Financial Market Equilibrium



Measuring Income Inequality



Income inequality is usually measured through use of a Lorenz curve of cumulative income relative to an equal distribution. The Gini index of inequality is the ratio of the area D between the Lorenz curve and the line of perfect equality to the triangle ABC. In a perfectly equal distribution, D converges to zero, and thus the Gini coefficient has a value of zero. At the opposite extreme, D converges to the value of the triangle ABC, in which case perfect inequality has a Gini coefficient value of 1

The Harrod-Domar Model of Economic Growth

			Period										
1. Base Case	**Parameter**	**Value**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Savings Rate	s	13.00%											
Capital Output Coefficient	k	3.00											
GDP Warranted Growth Rate	r = s/k	4.33%											
Population Growth Rate	p	3.00%											
Per Capita GDP Growth Rate	Wp = r-p	1.33%											
GDP in period i, in billions	Yi	400	400	417.3	435.4	454.3	474.0	494.5	515.9	538.3	561.6	586.0	611.4
Population in period i, in millions	Pi	1.0	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34
Per Capita GDP in period i	WPi	400.0	400.0	405.2	410.4	415.7	421.1	426.6	432.1	437.7	443.4	449.1	454.9
National Tax Rate	T	0.10%											
Fiscal Receipts	Rg = T(Yi)		40.0	41.7	43.5	45.4	47.4	49.5	51.6	53.8	56.2	58.6	61.1
Disposable National Income	Rn = Yi-Rg		360.0	375.6	391.9	408.9	426.6	445.1	464.3	484.5	505.5	527.4	550.2
Per Capita Disposable Income	(Yi-Rg)/Pi		360.0	364.7	369.4	374.2	379.0	383.9	388.9	393.9	399.0	404.2	409.4
2. Innovative Management	**Parameter**	**Value**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Savings Rate	s	13.00%											
Capital Output Coefficient	k	**2.60**											
GDP Warranted Growth Rate	r = s/k	5.00%											
Population Growth Rate	p	3.00%											
Per Capita GDP Growth Rate	Wp = r-p	2.00%											
GDP in period i, in billions	Yi	400	400	426.0	453.7	483.2	514.6	548.0	583.7	621.8	662.6	705.9	752.0
Population in period i, in millions	Pi	1.0	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34
Per Capita GDP in period i	WPi	400.0	400.0	413.6	427.8	442.5	457.8	473.7	488.8	505.4	522.6	540.3	558.7
National Tax Rate	T	0.10%											
Fiscal Receipts	Rg = T(Yi)		40.0	42.6	45.4	48.3	51.5	54.8	58.4	62.2	66.3	70.5	75.2
Disposable National Income	Rn = Yi-Rg		360.0	383.4	408.3	434.9	463.1	493.2	525.3	559.4	595.8	634.5	675.8
Per Capita Disposable Income	(Yi-Rg)/Pi		360.0	372.2	384.9	398.0	411.5	425.5	439.9	454.9	470.3	486.3	502.8
3. Accelerated Saving	**Parameter**	**Value**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Savings Rate	s	**15.00%**											
Capital Output Coefficient	k	2.60											
GDP Warranted Growth Rate	r = s/k	7.50%											
Population Growth Rate	p	3.00%											
Per Capita GDP Growth Rate	Wp = r-p	4.50%											
GDP in period i, in billions	Yi	400	400	430.0	462.3	496.9	534.2	574.3	617.3	663.6	713.4	766.9	824.4
Population in period i, in millions	Pi	1.0	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34
Per Capita GDP in period i	WPi	400.0	400.0	417.5	435.7	454.8	474.8	495.4	517.0	539.6	563.2	587.8	613.4
National Tax Rate	T	0.10%											
Fiscal Receipts	Rg = T(Yi)		40.0	43.0	46.2	49.7	53.4	57.4	61.7	66.4	71.3	76.7	82.4
Disposable National Income	Rn = Yi-Rg		360.0	387.0	416.0	447.2	480.8	516.8	555.6	597.3	642.1	690.2	742.0
Per Capita Disposable Income	(Yi-Rg)/Pi		360.0	375.7	392.1	409.3	427.2	445.8	465.3	485.6	506.8	529.0	552.1
4. Demographic Restraint	**Parameter**	**Value**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Savings Rate	s	13.00%											
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