

# **Structural Transformation: Paths to Provide Better Quality Employment**

**by**

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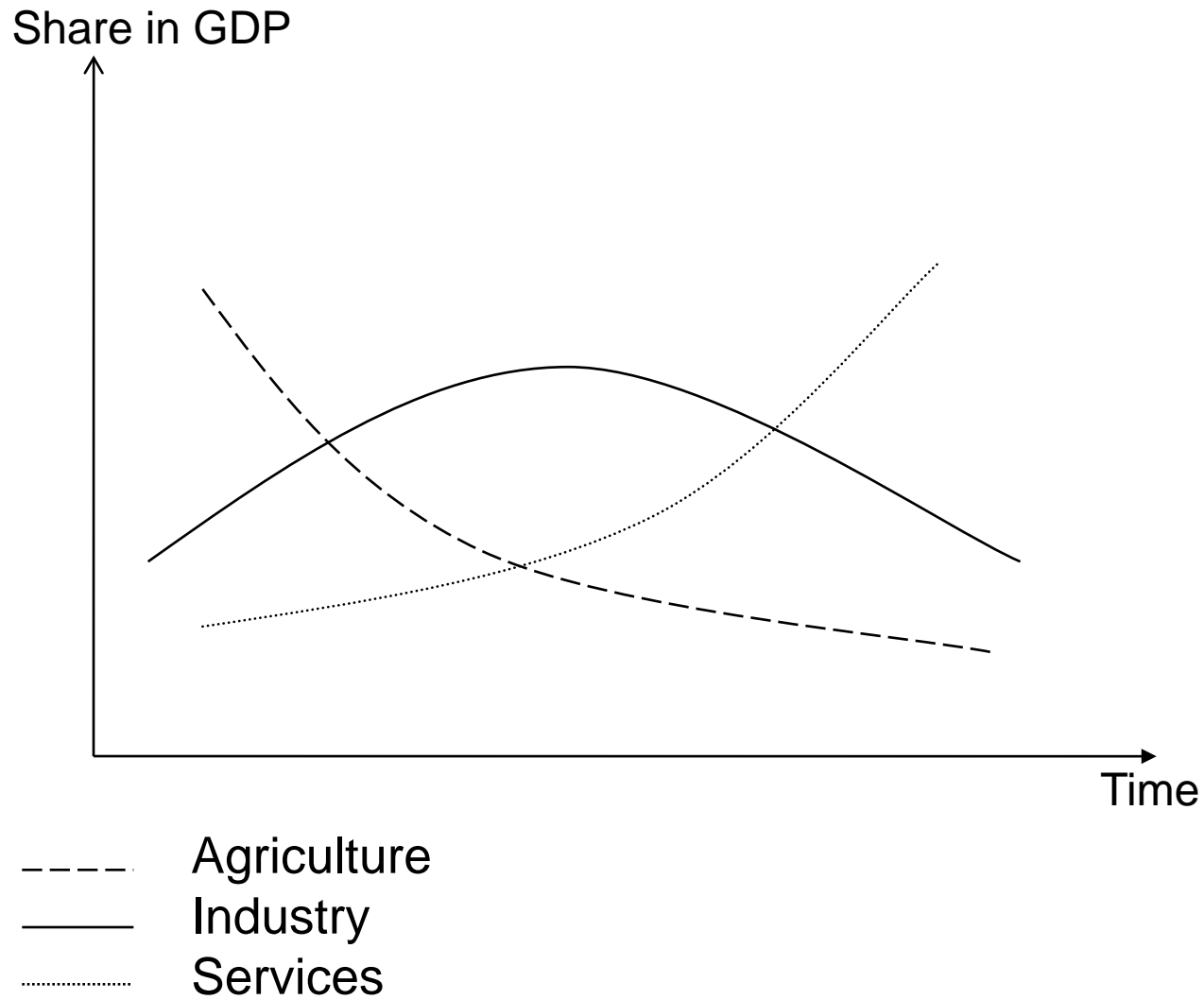
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# **Economic Growth and Structural Change: A Theoretical Perspective**

- **Commonly observed pattern of structural change: agriculture  $\rightarrow$  manufacturing  $\rightarrow$  services**
- **Explanations by Kuznets and Kaldor. Demand vs supply**
- **Kuznets: Income elasticity of demand of**
  - **manufactured goods > agricultural products**
  - **services > manufactured goods**

**Figure1: Changes in the Share of Different Sectors in GDP**



# **Growth and Structural Change: Theoretical Perspective (contd)**

- **Kaldor: Both demand and supply sides**
- **Agriculture subject to diminishing returns on land**
- **Manufacturing**
  - **faces no such constraint**
  - **Enjoys higher income elasticity of demand**
  - **and thus acts as the engine of growth at initial stages of development**

# **Growth and Structural Change: A Theoretical Perspective (contd)**

- **Three « laws » of Kaldor:**
  - **Growth of GDP is strongly correlated with the growth of manufacturing output**
  - **Productivity growth in an economy varies positively with growth of manufacturing**
  - **Productivity growth in an economy varies inversely with non-manufacturing employment**

# **Growth and Structural Change: A Theoretical perspective (contd)**

- **Influence of trade**
  - **Demand for manufactured goods may be met by imports**
  - **Some services (e.g., IT-based) may be exported**
- **Structural change in employment**
  - **Change in the share of output should lead to change in the share of employment**
  - **The timing and pace of change may vary**
  - **Implications for labour productivity**

# **Change in Economic Structure: History of Developed Countries**

- Common sequence of change: agriculture to industry to services
- Monotonous decrease in the share of agriculture and increase of services
- Share of industry increased initially and declined later
- Structure of employment changed with that of output \_ shares roughly similar



# **Change in Economic Structure: History of Developed Countries (contd)**

- Share of agriculture in total output
  - Half to two-thirds before growth started
  - Declined to 25% in 75-100 years
  - Less than 5% by end-20th century
- Share of industries
  - About 25% at the beginning of growth
  - Rose to 50% by 1950
  - Declined to 25-30% by 2000

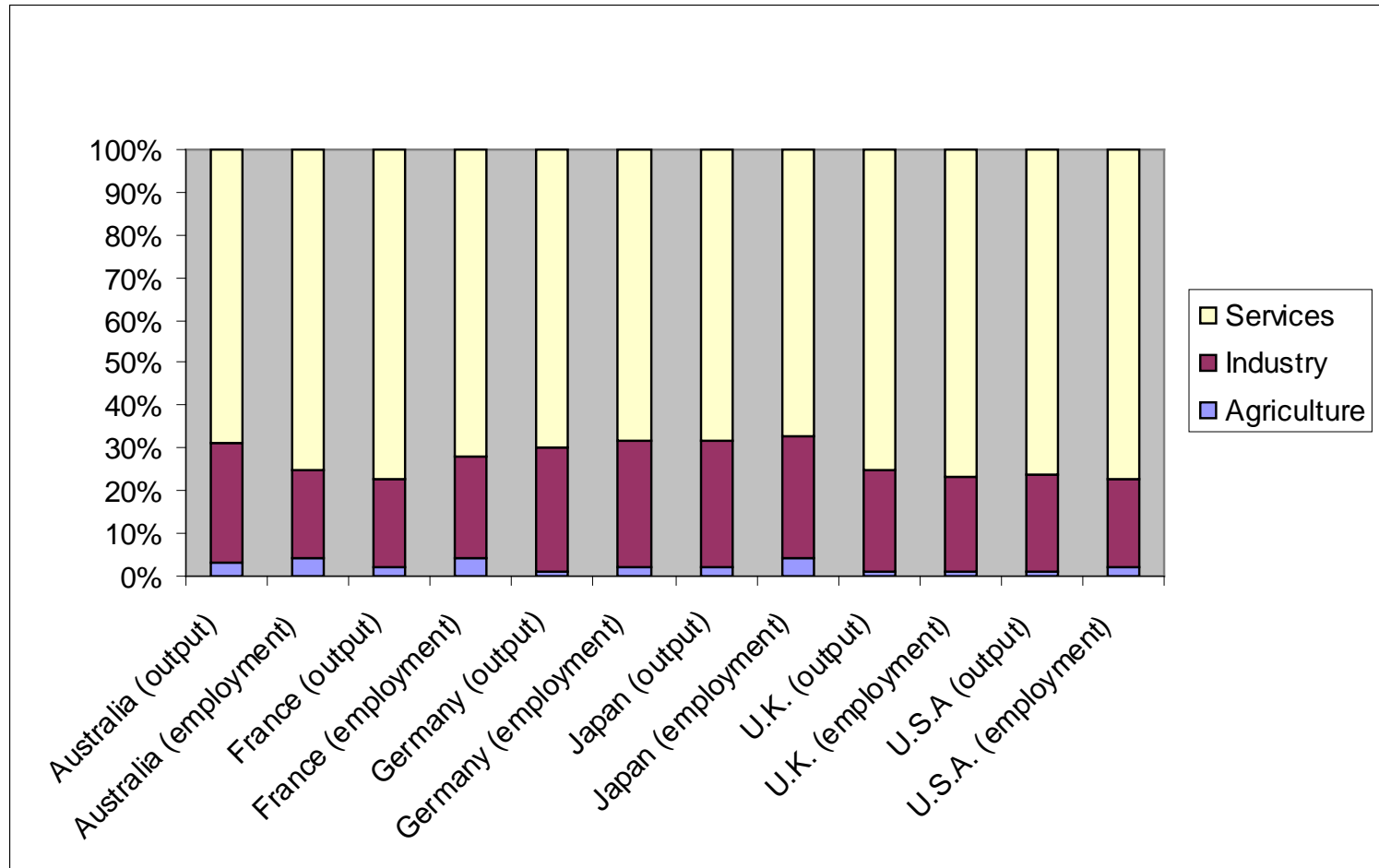
# Change in Economic Structure: Developed Countries (contd)

- Share of the service sector
  - Increased continuously
  - Crossed 50% by early 20th century in UK and USA
  - Grew rapidly after the sixties
  - Currently around 70%

# Table 1: Sector Composition of GDP and Employment in Selected Developed Countries (2005)

COUNTRY	Share in output (%)			Share in employment (%)		
	Agriculture	Industry	Services	Agriculture	Industry	Services
Australia	3	28	69	4	21	75
France	2	21	77	4	24	72
Germany	1	29	70	2	30	68
Japan	2	30	69	4	28	66
U.K.	1	24	75	1	22	76
U.S.A	1	23	76	2	21	78
<b>Source:</b> World Bank, WDI online						

# Figure 2: Sector Composition of Output and Employment in Developed Countries



# **Economic Growth and Structural Change in Developing Countries**

- Direction of change similar in all countries
- Rate of change varies: sharper in East and South-East Asia (ESEA)
- Share of industry rose more rapidly in ESEA
- Share of services increased more rapidly in India
- The change in the structure of labour force has been slower than that in GDP
- In India, share of service sector in employment much lower than its share in GDP

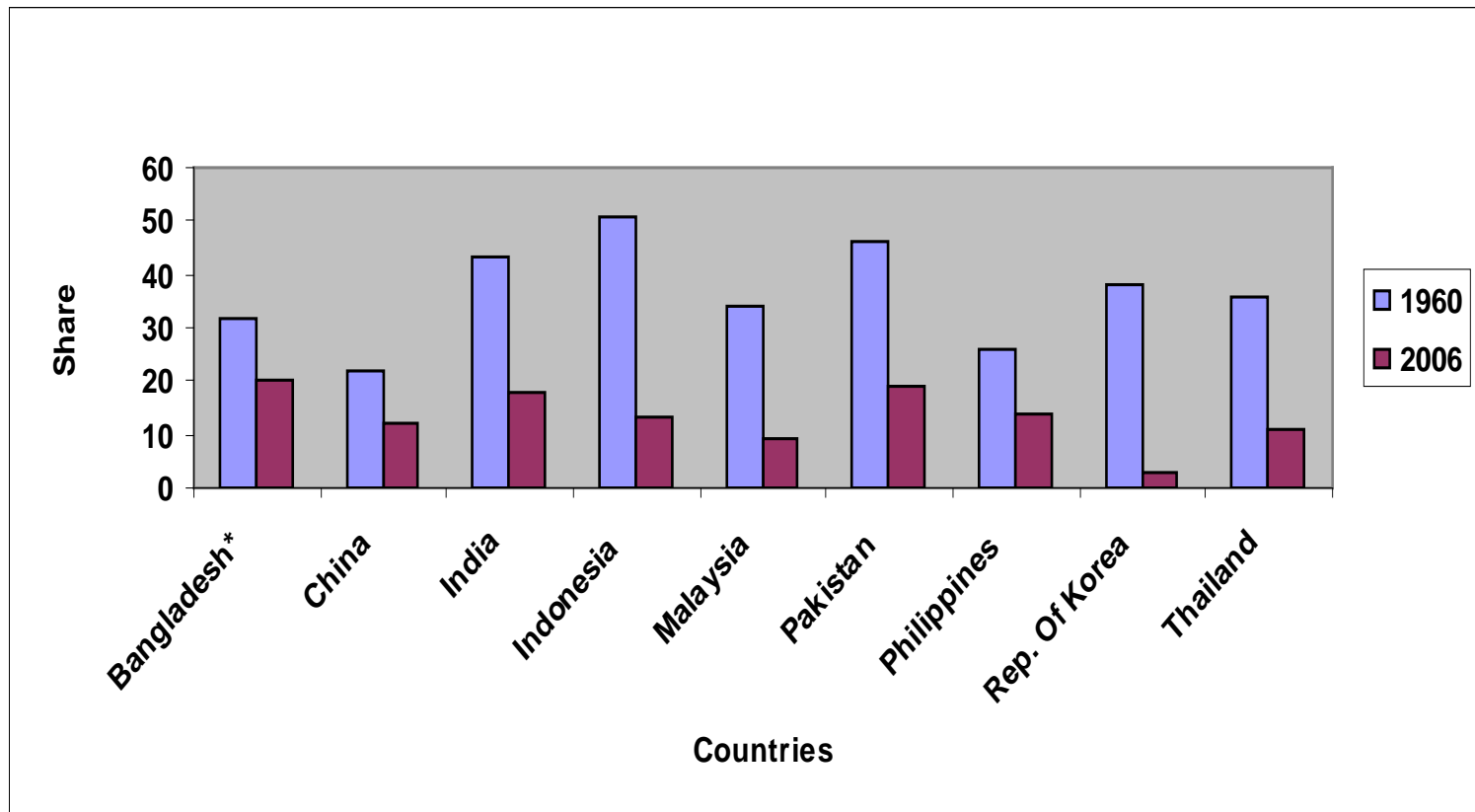
**Table 2: Changes in the Sector Composition of GDP in Selected Developing Countries**

COUNTRY	Agriculture (%)		Industry (%)		Services (%)	
	1960	2006	1960	2006	1960	2006
<b>Bangladesh</b>	32*	20	48*	28	21*	52
<b>China</b>	22	12	45	48	33	40
<b>India</b>	43	18	20	28	38	55
<b>Indonesia</b>	51	13	15	47	33	40
<b>Malaysia</b>	34	9	19	50	46	41
<b>Pakistan</b>	46	19	16	27	38	53
<b>Philippines</b>	26	14	28	32	47	54
<b>Rep. Of Korea</b>	38	3	18	40	43	57
<b>Thailand</b>	36	11	19	45	45	45

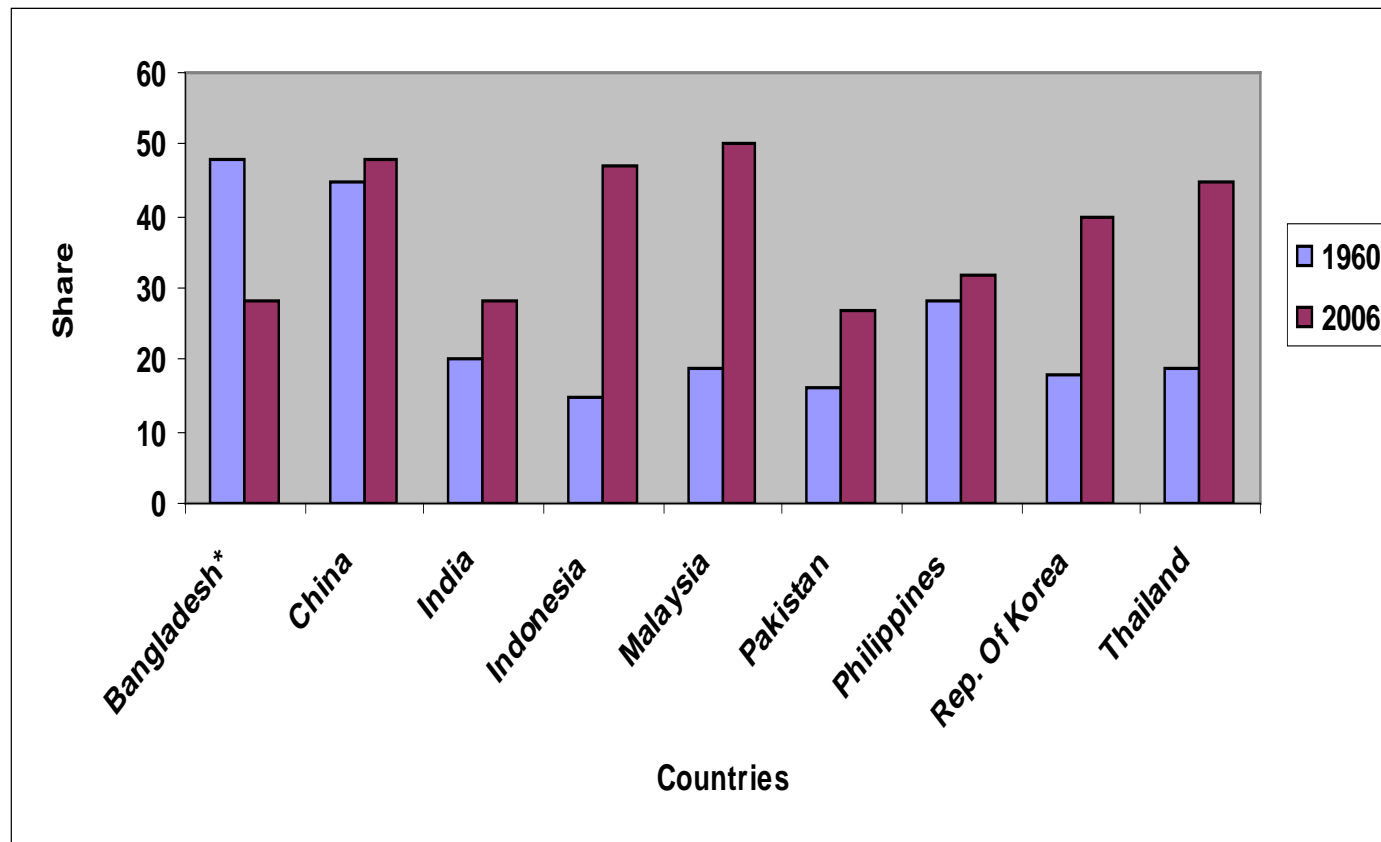
Note: \* 1980

Source: World Bank WDI  
online, WDI 2004 CD-  
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# Figure 3a: Changes in Agriculture's Share in GDP

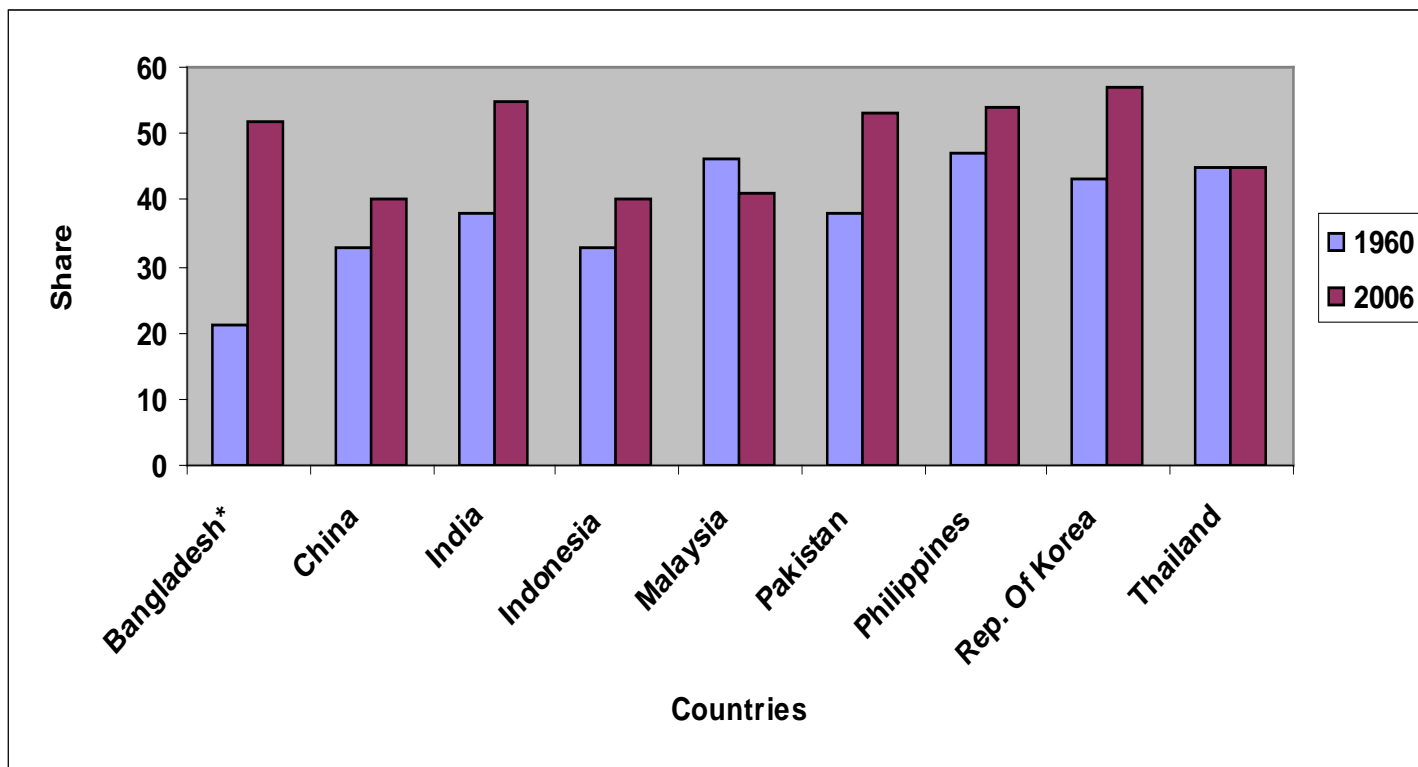


# Figure 3b: Changes in Industry's Share in GDP





# Figure 3c: Changes in the Share of Service in GDP



# **Growth and Structural Change in Developing Countries (contd)**

- Growth of manufacturing output in relation to GDP growth has been higher in ESEA countries compared to South Asia  
(See Table in slides no. 19 and 20 )

**Table 4: Growth Rate of Overall GDP and Manufacturing Output (annual compound rate of growth in percentage)**

<b>Country</b>	<b>India</b>	<b>Indonesia</b>	<b>Rep. Of Korea</b>	<b>Malaysia</b>
<b>1960-1970</b>				
<b>GDP</b>	<b>3.6</b>	<b>3.5</b>	<b>8.5</b>	<b>6.9</b>
<b>Man</b>	<b>4.8</b>	<b>3.3</b>	<b>17.2</b>	<b>n.a</b>
<b>Man/GDP</b>	<b>1.3</b>	<b>0.9</b>	<b>2.02</b>	<b>n.a</b>
<b>1970-1980</b>				
<b>GDP</b>	<b>3.4</b>	<b>7.2</b>	<b>10.1</b>	<b>7.9</b>
<b>Man</b>	<b>4.6</b>	<b>14</b>	<b>17.7</b>	<b>11.7</b>
<b>Man/GDP</b>	<b>1.4</b>	<b>1.9</b>	<b>1.8</b>	<b>1.5</b>

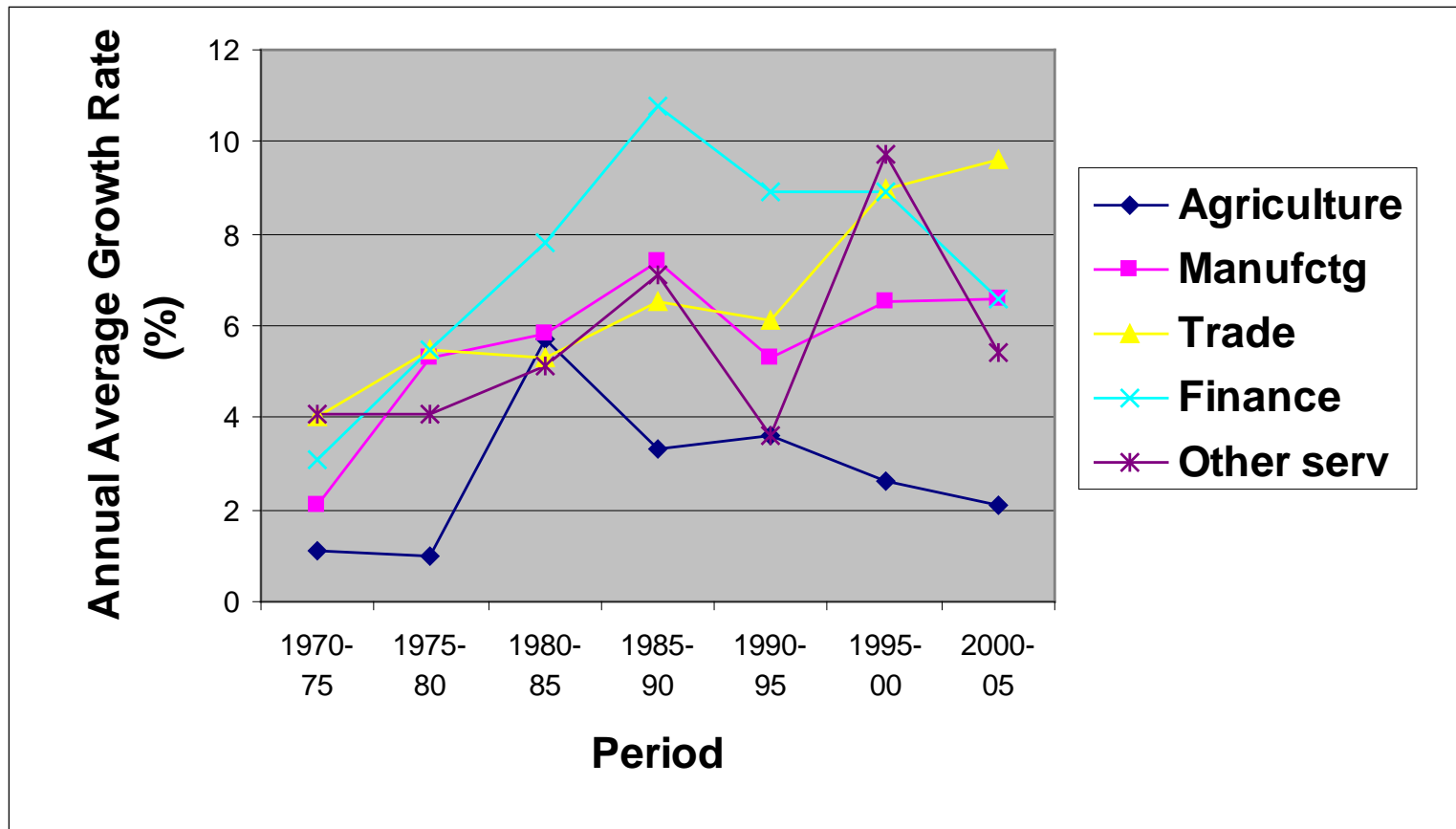
<b>1980-1990</b>				
<b>GDP</b>	<b>5.8</b>	<b>6.1</b>	<b>8.9</b>	<b>5.3</b>
<b>Man</b>	<b>7.4</b>	<b>12.8</b>	<b>12.1</b>	<b>9.3</b>
<b>Man/GDP</b>	<b>1.3</b>	<b>2.1</b>	<b>1.4</b>	<b>1.8</b>
<b>1990-1996</b>				
<b>GDP</b>	<b>5.8</b>	<b>7.7</b>	<b>7.3</b>	<b>8.7</b>
<b>Man</b>	<b>7.5</b>	<b>11.1</b>	<b>7.9</b>	<b>13.2</b>
<b>Man/GDP</b>	<b>1.3</b>	<b>1.4</b>	<b>1.1</b>	<b>1.5</b>
<b>2000-2005</b>				
<b>GDP</b>	<b>7</b>	<b>4.7</b>	<b>4.6</b>	<b>4.8</b>
<b>Man</b>	<b>6.9</b>	<b>5.2</b>	<b>7</b>	<b>5.2</b>
<b>Man/GDP</b>	<b>0.99</b>	<b>1.1</b>	<b>1.5</b>	<b>1.1</b>

# Growth and Structural Change in Developing Countries (contd)

- The pattern unfolding in India

<u>Sector</u>	<u>Share in GDP</u>		
	<u>1950-51</u>	<u>1990-91</u>	<u>2005-06</u>
Agriculture	59	35	23
Industry	13	24	24
Services	28	41	52

# Figure 4: Sectoral Growth Rates in India (1970-2005)



# Industry-Service Balance: Theory and Reality

- **Empirical results (Dasgupta and Singh, 2005, data from 30 developing countries and India's states)**
  - Countries with above average manufg growth also have above average GDP growth
  - Productivity growth in an economy varies positively with growth in the manufg sector
  - Productivity growth in an economy varies inversely with non-manufg employment

# **Industry-Service Balance: Some Questions and Policy Issues**

- **Compatibility between demand and production**
  - **Service sector accounts for 15% and 26% of consumption expenditure in rural and urban areas**
  - **Service sector accounts for over 50% (55% in 2006) of total GDP**
  - **Income elasticity of demand for manufactured goods is over 1**
  - **With the share of industry stagnating at 25% of GDP, excess demand may emerge**



# Questions and Policy Issues (contd)

- **Can IT sector growth pose a challenge to the notion of industry as the engine of growth?**
  - IT-based services can be exported
  - IT can be used to enhance productivity in other sectors
  - IT can lead to dynamic spillover effects on the rest of the economy
  - IT sector activities need not remain confined to high end jobs

# Questions and Policy Issues (contd)

- **How employment-friendly has been growth in the service sector?**
  - **Share of employment is about 25% compared to 52% share in GDP**
  - **Elasticity of employment declined during the 1990s compared to the 1980s**
    - ✓ from 0.62 during 1988-94 to 0.35 during 1994-2000
  - **IT sector accounts for a small share of the service sector and of total employment**
    - ✓ 1.6 m. (2007) out of the labour force of about 460 m.

# Questions and Policy Issues (contd)

- **Post-2000 Employment elasticity figures (service sector) show a better picture**
- **Need to look at components of the services sector**
  - Trade and financial services more employment-friendly
  - Transport & communication, and community, social and personal services showed decline in employment elasticity
- **A negative view of the sector as a whole may not be appropriate**
- **But employment generating capacity remains a concern**

# Questions and Policy Issues (contd)

- Greater balance is needed in the sectoral pattern of growth in India
- The slowdown in manufacturing growth during 2007-08 has to be reversed
- The pattern within manufacturing needs to change
  - From credit-driven demand to more income-driven demand
  - From capital-intensive to more labour-intensive sub-sectors
- Requires a change in the pattern of development

# Questions and Policy Issues (contd)

## Agriculture

- **Aim at 4% growth per annum**
- **Reverse the declining trend in crop yields**
  - Higher and more effective public investment
  - Improved use of fertilizer
  - More effective irrigation
  - Improvement in dry land farming
  - Strengthen extension services
- **Identify and remove constraints faced by labour-intensive crops**
  - Paddy
  - Plantation crops
  - Fruits and vegetables

# Questions and Policy Issues (contd)

## Manufacturing

- **Aim at raising the manufacturing/GDP growth ratio**
- **What are the binding constraints on growth?**
  - Demand for products
  - Supply side: infrastructure, capital (quantity & price), regulatory framework, etc.
- **Policies for strengthening demand: income vs credit**
- **Policies to promote growth of sectors**
  - with high income elasticity of demand
  - that are more employment-intensive
- **Policies to remove distortions in relative factor prices and to encourage use of labour**