

The time trends for the growth in total product and the shifts over time in product composition for a single country can be obtained by combining the data from Figures 3-1 and 3-5. Working with data on Sweden from both sources, it is possible to determine the evolution of that country's economy over the period 1890-1950 (Figure 3-6). Production in the primary sector rose slightly during this period to about 200 dollars per capita, while the industry and service sector products grew from 125 dollars and 200 dollars, respectively, in 1890 to 925 dollars and 875 dollars in 1950. Over different time spans, other industrialized countries have exhibited similar patterns. The regularity of these compositional patterns, despite regional differences in resource endowment, climate, culture, technologies, and other characteristics, points to a set of common changes underlying the development of a country from an agrarian to an industrial and service economy.

The general development patterns just described are quite understandable and are to be expected, so long as most individuals in a society have some influence over the allocation of investments either through free market mechanisms or through political processes. Most human societies share a common set of priorities: first, physiological

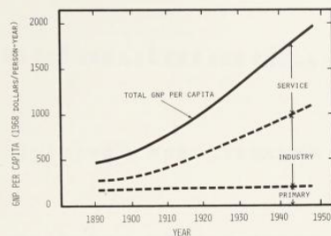


Figure 3-6 Growth in total product and shifts in product composition, Sweden, 1890-1950

Sources: Figures 3-1 and 3-5.

Country	1870	1890	1910	1930	1950
Australia	25.5	22.8	26.9	22.5	18.3
Canada	44.0	35.2	27.6	13.1	14.0
France	34.8	30.2	28.4	22.4	16.0
Germany	25.5	21.4	18.2	13.4	10.9
Italy	57.6	50.4	45.0	33.8	35.5
Sweden	39.4	32.0	23.6	14.4	10.4
United Kingdom	14.2	8.6	6.0	4.1	6.2
Japan	—	53.4	41.7	21.2	24.6
United States	—	16.6	17.0	8.7	7.9

A. The relative share of agriculture, forestry, and fishing in national product in current prices (percentages)

Country	1870	1890	1910	1930	1950
Australia	27.1	28.4	26.6	25.4	39.1
Canada	22.9	29.5	30.4	31.7	40.2
France	34.1	36.7	40.1	36.5	33.0
Germany	26.3	27.4	39.2	42.0	47.9
Italy	19.3	20.1	24.8	31.4	39.8
Sweden	17.7	22.6	33.2	38.7	46.3
United Kingdom	38.1	38.4	37.0	39.0	44.9
Japan	—	15.9	21.2	27.0	32.2
United States	—	24.9	26.5	25.7	36.7

B. The relative share of manufacturing, mining, and construction in national product in current prices (percentages)

Figure 3-5 Shifts in the composition of national product in nine nations, 1870-1950  
Source: Temin 1967.

sustenance; then physical comfort; and finally, intellectual or spiritual fulfillment. Until nutrition is raised to survival levels there is little interest in housing or education. Once the agriculture sector has grown sufficiently to provide basic food needs, more attention can be placed on housing, clothing, and other necessities for physical comfort. With the physical needs met through the expansion of the industrial sector, emphasis may shift to increasing services. This hierarchy of needs, which has been recognized by social scientists (for example, Maslow 1954), would suggest that the development patterns found by Chenery and Taylor (1968) and Temin (1967) are fundamental to man's economic systems.

There is nothing immutable about the precise sectoral ratios observed on the average in the past. Societies with political dictatorships or centrally planned economies could conceivably shift the ratio of industrial production to food or service output typically observed at any level of GNP per capita. For example, it appears that Japan and the USSR have increased the relative emphasis on industrial production. China appears to have higher service levels than would be implied by historical relationships in other countries. Nevertheless, given the fundamental nature of the hierarchy of man's needs, it seems that large deviations from the general growth patterns described by Chenery and Taylor (1968) and Temin (1967) would be possible only after a significant change in social values.

### 3.3 BASIC CONCEPTS

Because we wished to develop a model from causal rather than correlational relationships, it was not sufficient merely to observe historical patterns in the magnitude and composition of national products. We had also to understand the functioning of the