

1 Introduction

In the middle of the nineteenth century the first British Minister to Japan described it as 'a cluster of islands on the furthest edge of the horizon, inhabited by a race grotesque and savage'. In the last quarter of the twentieth century Japan is the world's third largest industrial power [4; 100]. In the 1960s the average annual compound rate of growth of real GNP was nearly 12 per cent and of GNP per head of total population nearly 11 per cent [114, 25]. This post-war 'economic miracle' was regarded with a mixture of awe and alarm by some western observers and occasioned a flood of books with titles such as How Japan's Economy Grew So Fast [27], Asia's New Giant [126], Japan as Number One [169], and The Emerging Japanese Superstate [69]. The social costs of rapid growth have resulted in some tempering of earlier euphoria. The inverted commas in the title of Morishima's Why has Japan 'Succeeded'? [89] are not fortuitous. Ohkawa and Rosovsky rightly warn against the temptation to 'accentuate the positive' to the neglect of the 'darker side' [114, 228; 6; 90; 147].

There is a variety of interpretations of post-Second World War growth but two things are certain. The first is the truism that growth is a function of a large number of interacting variables, climatological, geographical, religious, sociological, political, as well as economic, many of which are not conducive to quantification. The second is that growth in any period has its roots in earlier periods. The Second World War marked a transition, some would say, from monarchical absolutism to bourgeois republicanism with only a 'symbolic' emperor, but the pace and character of recent events were influenced by changes dating back to the Meiji Restoration and even to the preceding Tokugawa era. Rostow



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gives the 'tentative, approximate' dates for Japanese 'take-off' as 1878–1900 [137, 38; 138]. Kuznets dates the beginning of 'modern economic growth' in 1874–9 [77, 24], and Rosovsky in 1886 [135, 92]. How one dates and what one means by the 'beginnings of modern growth' are matters for discussion. What is important is that although there was acceleration after the Second World War, the average annual rate of increase of real GNP between 1901 and 1937 at 3.75 per cent was spectacular enough to merit a thorough examination of the years before Pearl Harbour.

This examination is facilitated by the comparative richness of the raw and processed evidence readily accessible in Japanese and even in English. However, apart altogether from the ideological bias which influences even the most detached scholar, there are problems of data, regions, time and people. The volumes on the Estimates of Long-Term Economic Statistics of Japan since 1868 (LTES) [117] provide data on economic indicators of a comprehensiveness unusual in most countries. Nonetheless there are doubts about early Meiji figures and speculation about the Tokugawa era. The plethora of statistics and their increasing manipulation by econometric historians should not blind one to the existence of large margins of error.

All-Japan generalisations mask considerable diversity in climate, topography and regions, and in economic activity and performance. In the Tokugawa period, there was relatively fast economic advance in some areas and regionally varied demographic change. Today, modern industry is heavily concentrated in the 'Tokaido belt' which produces three-quarters of manufactured output, employs 80 per cent of factory workers and suffers external diseconomies such as land scarcity, excess density, traffic jams and pollution. In agriculture the typology rightly stresses the universality of small, rice-growing farms, but the northern island of Hokkaido contrasts markedly with southern regions in crops, output, size of farm, land-use rate and weather. Indeed, farming in Eastern Hokkaido has a West European rather than a Japanese appearance. One could follow the geographers along the alluvial plains and irrigated paddy fields through suburban horticulture with back-pack technology to the wheat-growing uplands, to provide a picture of infinite complexity.

Regional income disparities have occasioned growing concern to



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recent governments. In 1959 average per capita income in Tokyoto was 63 per cent above the national average; in Kagoshima-ken it was 40 per cent below [172]. Umemura found a regional relation between income and occupational distribution [166]. In 1960 annual average income in Southern Kyushu with 54 per cent of employment in the primary sector was only about 60 per cent of all-Japan income. Of course, data of the above sort present serious problems of definition and compilation and the regional picture was not static. The general message remains, that macro studies and national aggregates conceal spatial divergences.

There also have been chronological fluctuations, some due to natural disasters such as typhoons, floods, volcanic eruptions and the Great Kanto earthquake of 1923. In addition the Second World War interrupted the growth trend with real GNP in 1946 marginally below the 1918 level and only about half of the 1937 level. It was probably not until 1952 that the 1937 GNP level was again reached. By contrast Japan was only peripherally involved in the 1914-18 war, was able to take advantage of the dislocation in other countries, and achieved rapid growth of exports and increased shipping earnings which transformed the persistent current account balance of payment deficits of the period 1903-14 into large surpluses during the war. Sensitivity to external events was again demonstrated in the world depression with a halving of the value of the main export, silk, between 1920 and 1930. The ensuing peasant distress, widespread unemployment, growing economic nationalism abroad and alleged Chinese threats to Manchuria contributed to changes in economic policy, the collapse of parliamentary 'democracy' and the rise of rightist militarism.

Attempts to identify and measure periodisation in Japanese economic growth raise problems over indicators, base years, turning points and the different experience of the agrarian and non-agrarian sectors. Central to the work of Ohkawa and Rosovsky [114] are periods of relatively faster and slower growth within an accelerating trend. Long swings have been an enduring feature and closely related, statistically and causally, with private and total capital formation. Upswings are characterised by 'investment spurts' and downswings by slower investment growth. The existence of long swings has been confirmed more recently by Ohkawa in Ohkawa and Shinohara [116] with four upswings and three



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downswings from the 1880s to the 1960s. (See Table 1 below.) Oscillations in growth are not peculiar to Japan. What is unusual is that each upswing had a faster rate of growth than its predecessor.

Another significant and complex issue is the behaviour and attitudes of the Japanese people, and the 'national ethos'. These were a determinant of the growth and structure of the economy and, in turn, were influenced by economic change.

The Japanese may have had mixed Ainu, Malay and Mongol origins but remoteness and isolation developed exclusiveness, uniformity and remarkable homogeneity of language and culture. In addition the coexistence of traditional and modern elements [130] and the peculiar nature of this society have confounded facile attempts to fit it into general western theories such as those of Maine or Marx or Weber. Certainly one can see elements of movements from status to contract, from feudalism to capitalism and also the influence of a religious ethic. But Japanese frugality was hardly Calvinistic, its 'capitalism' was idiosyncratic and the Confucianism and Taoism imported from China underwent a drastic sea-change. These singularities have not only stimulated much sociological debate but have also queried the relevance of the Japanese experience as a model for LDCs and the viability of importing Japanese labour practices to British and American car plants [19].

Among the features of society most commented upon were discipline, a clear concept of and acceptance of authority, loyalty and deference to superiors and an emphasis on birth and seniority rather than on merit. Most important was the subjection of individualism to the group, originally the ie or household later transferred to the company or firm. This 'groupism' appears in the loyalty of workers to a paternalistic company rather than to craft and industrial workers in other enterprises, and in the participation of company employees in group decision-making. Before the Second World War, the Government encouraged through the educational system and State Shinto, a belief in the emperor as a symbol of Japan's divine origins and destined greatness. Some of these 'traditional' features were compared unfavourably as distortions, with an idealised model of western industrial society. They were seen both as evidence of Japan's lagging development or unripe capitalism and as inhibitors of 'modernisation'. More



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recently, sociologists are more concerned with the positive effects on industrialisation of Japan's social structure and attitudes and are evaluating the lessons they contain for the West.

While Japanese society has enough common characteristics to make some generalisation meaningful, even the casual observer is as much struck by paradoxes and contradictions as by homogeneity. The subservience of the Japanese did not prevent frequent peasant revolts and the rice riots of 1918 [13]. The Meiji Restoration was less bloody than some revolutions but there were rebellions, notably the Satsuma uprising in 1877. Neither the structure of society nor its attitudes were constant. They were moulded and altered by economic forces. The lowly-ranked merchants in the Tokugawa hierarchy became a powerful group long before 1868. The twentieth-century witnesses, in Dore's words [29, 4] 'a movement towards greater flexibility, greater individuation and greater rationality'. In another context Dore's 'good' Meiji landlords became the parasites of the 1920s. Vogel [168, 86] doubts whether the nationalist doctrines of the 1930s were ever fully 'internalised' by his salaried men. The famous Japanese industrial relations system with its employer paternalism, reciprocal loyalties, lifetime commitment and seniority wages, developed and adapted alongside modern industry. Its origins lie at least as much in the economic realities of labour market problems as in sociological paternalism or dynastic élitism. Nor was it typical outside the male workforce in the modern factory sector. In 1930 over half of the workers in factories with five or more employees were women. In cotton textiles females comprised about 80 per cent of the workforce [160, 98]. Women workers experienced different systems of recruitment, were much more transient and earned less than their male counterparts. There is a growing literature not only on women [133; 146] but also about disadvantaged minorities such as the Ainu, the Buraku, the Koreans and Okinawans, to whom the benefits of growth have not fully 'trickled-down' [170].

Ideological bias, inadequate data, spatial and temporal dissimilarities and the existence of social and economic minorities provide the complex reality behind general statements and theses about 'the Japanese' and 'Japanese economic growth'. They explain the large number of different methods and schools and interpretations of historical change [57]. Japan has been described



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as 'a battle ground for competing theories and economic development' and as a testing ground for 'labour-surplus' and neoclassical models [26; 71; 113; 118]. The English-language literature has been dominated by Americans and 'modernisation theory', critical of the Marxist orientation of much of the Japanese literature [22; 33; 65]. The Marxists themselves divided into the Ronoha school who argued that the Meiji Restoration was essentially a bourgeois revolution leading to a modern industrial capitalist society and the Kōzaha who stressed absolute monarchism and the persistence of feudal remnants [157]. Disenchantment with all these and concern for 'the people' (Minshū), has spawned 'people's histories' (Minshūshi), about village daily life and customs, popular rights movements and ethnography in general [38]. The careful scholar should apply to all this historiography the same spirit of critical eclecticism which the Japanese themselves demonstrated in their attempts to catch up with the West.



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Growth and structural change

Kuznets identified the economic growth of nations as 'a sustained increase in per capita or per worker product, mostly often accompanied by an increase in population and usually by sweeping structural changes'. Of course, 'growthmania' may neglect distribution, basic needs, social indicators, equality and strategies which are less oriented to maximising output growth. In Japan material progress was historically related to political and social costs, most strikingly in the case of militarism.

Table 1, overleaf [116, 10] illustrates the general growth picture and its fluctuations.

Japan was already relatively densely populated in 1868 but it is clear from Table 1 that population growth has been moderate, nearer to British rates during the Industrial Revolution than to the much higher rates in many LDCs since the Second World War. The upswings, downswings and trend acceleration in economic growth, already noted, are prominent. In the past decade or so rates of growth have been slower, raising the possibility that there is now a phase of trend deceleration. Japan started her modern economic growth at a much lower level of per capita income than did most other now developed countries. Even in 1974 the UN International Comparison Project [76] found that GDP per capita was only 63 per cent of that in the USA and below that in most industrialised societies except the UK and Italy. But the gap has been steadily narrowing over time. Only the USA among 14 non-socialist countries had a historically faster rate of growth of total product and Sweden of per capita. The Japanese record is particularly striking in the pre-war Asian context. British India between 1858 and 1947 achieved an average per annum total GDP growth rate of



Table 1 Long-term pattern of aggregate growth rates, constant price series: average annual growth rates. (in percent)

| | | Gross | | | 1 | ersonal cons | umption Difference |
|--------------------------|-------------|-------------------------|---------------------|-------------------|-------|----------------------------|--------------------------------------|
| Period (length in years) | | National Expenditure | Total population | Per capita GNE | Total | Per capita ^a | Per from per capita a capita a |
| A. Long-swing phases | | | | | | | |
| (U) $1887-97$ | (10) | 3.21 | 96.0 | 2.25 | 3.15 | 2.19 | -0.06 |
| (D) 1897–1904 | <u>(</u> C) | 1.83 | 1.16 | 0.67 | 1.02 | -0.14 | -0.81 |
| (U) 1904–19 | (15) | 3.30 | 1.19 | 2.11 | 2.99 | 1.80 | -0.31 |
| (D) 1919–30 | (11) | 2.40 | 1.51 | 0.89 | 2.60 | 1.09 | 0.20 |
| (U) 1930–38 | <u></u> | 4.88 | 1.28 | 2.60 | 2.23 | 0.95 | -2.65 |
| (D) 1938–53 | (15) | 0.58 | 1.36 | -0.78 | 0.89 | -0.47 | 0.31 |
| (D) 1953–69 | (16) | 9.56 | 1.03 | 8.53 | 8.63 | 7.60 | -0.93 |
| B. Trough-to-trough a | nd peak-to- | peak | | | | | |
| (T) 1887–1904 | (17) | 2.64 | 1.04 | 1.60 | 2.27 | 1.23 | -0.37 |
| (P) 1897–1919 | (22) | 2.72 | 1.18 | 1.54 | 2.37 | 1.09 | -0.54 |
| (T) 190 4– 30 | (56) | 2.92 | 1.32 | 1.60 | 2.83 | 1.51 | -0.09 |
| (P) 1919–38 | (19) | 3.44 | 1.35 | 2.09 | 2.44 | 1.09 | -1.00 |
| (T) 1930–53 | (23) | 2.08 | 1.29 | 0.79 | 1.36 | 0.07 | -0.72 |
| (P) 1938–69 | (31) | 5.21 | 1.06 | 4.16 | 4.51 | 3.45 | -0.71 |
| C. Secular trends | • | | | | | | 1 |
| 1887–1930 | (43) | 2.81 | 1.21 | 1.60 | 2.61 | 1.40 | -0.20 |
| 1904–38 | (34) | 3.26 | 1.25 | 2.01 | 2.69 | 1.44 | -0.57 |
| 1887–1938 | (51) | 3.13 | 1.22 | 1.91 | 2.55 | 1.33 | -0.58 |
| 1887–1969 | (82) | 3.92 | 1.21 | 2.71 | 3.29 | 2.08 | -0.63 |
| 1904–69 | (65) | 4.19 | 1.17 | 3.02 | 3.55 | 2.38 | -0.64 |
| | | | | | | | |

consistent data. Turning points are based on GNP, 1887, 1953 and 1969 are tentative. The series are smoothed. U = upswing; D = Notes: Annual growth rates are calculated as a percentage increase from the preceding year, then a period average growth rate is taken as the simple average of the individual years' growth rates, except that 1938-53 is a simple bridge between the two years because of the lack of downswing; P = peak; T = trough.

^a Personal consumption's growth rate minus that of total population.
^b Per capita personal consumption's growth rate minus that of per capita GNE.



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only about 1 per cent. Interwar Indian output growth was barely sufficient to outstrip population [84, 134].

A country may achieve fast rates of output growth, but without diversification and structural change it cannot be said to be 'developed'. The Japanese experience exhibits a relative shift from agriculture to manufacturing and from pre-modern to modern industry, but there was also a remarkable persistence of the traditional and small-scale sectors. This persistence has promoted descriptions such as dualistic, differentiated and hybrid and, in particular, a large and controversial literature on the relevance of theories of dualistic development, the role of unlimited supplies of labour and a supposed turning point from labour-surplus to labour-scarcity conditions.

The conventional structural switch is empirically illustrated by differential sectoral growth rates, by the changing share of sectors in GNP and occupations, by alterations in export composition and by variation in manufacturing product. The fastest growth rate was in manufacturing, followed by services and agriculture [101]. From 1887 to 1938 industrial growth (manufacturing, facilitating industries and construction) averaged 6.34 per cent per annum, services 2.60 per cent and agriculture 1.36 per cent [116, 38]. Oshima [124] gives annual average growth rates of total factor productivity for non-agriculture at 1.1 per cent (1908–38) and 5.7 per cent (1955–70); for agriculture, 0.6 per cent (1901–37) and 2.6 per cent (1955–70). The share of industry in NDP at current prices increased from 20 per cent around 1887 to 51.7 per cent around 1938. The share of services declined from 37.5 to 30 per cent and agriculture even more from 42.5 to 18.5 per cent.

Statements about occupational switches are hazardous in a country where there were so many family enterprises, overlapping of jobs and bye-employment. Farmers, for example, had side-occupations, not only in forestry, fishing and silk-reeling but also in mining, building, transport and communications [127]. Part-time farmers as a percentage of total farmers increased from 55 per cent in 1938 to 78.5 per cent in 1965 [112, 252]. In the early Meiji period one-third of all the gainfully occupied persons in the two prefectures of Yamanashi and Yamagata had side-jobs [112, 191]. In the Northern Kyushu coal-districts farmers turned to mining in off-peak periods [104, 24]. In 1878 the percentage of total occu-

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pied population in primary industry was 83.5 (15.7 millions), in secondary industry 5 (925,000) and in tertiary 11.5 (2.1 millions). In 1940 the figures are 44 (14.4 millions), 23.5 (7.6 millions) and 32 (10.4 millions) [109, 145]. While these crude data evince structural change, they also confirm the endurance of agriculture as an employment source. There is a marked contrast, for example, with Britain, where the percentage of the total occupied population in agriculture was already only 36 in 1801 and 8 in 1911. The existence until recently of a huge reserve army in the rural sector has important connotations for studies of sources of growth and for theories of the dual economy.

Structural change is also evident in the pattern of exports, particularly significant in view of the current concern in some Third World countries about overspecialisation in primary commodities. Matsukata in 1874 was warning against Japan's becoming a mere supplier of primary products [153, 30]. Japan's early export mix was heavily dominated by agricultural and processed goods, but textiles and more sophisticated manufactures eventually took over. Thus, in 1874-83 in current prices, 42.5 per cent of exports were primary products and 57.5 per cent manufactures. Of the latter, some 42 per cent were textiles, mainly silk. Silk here means raw silk, often categorised as a primary rather than a secondary product. Raw silk dominated Japan's early exports with a share of total merchandise exports ranging from 60 per cent at the Restoration to 46 per cent in the early 1920s. By 1931-40 the share of primary products had fallen to 6.9 per cent with an increase in manufactures to over 93.1 per cent. Most striking is the rise in so-called 'heavy manufactures' as a percentage of exports, from 8.2 in 1874-83 to 28.7 in 1931-40 and to 68.2 in 1966-70 [116, 135]. Since the Second World War, Japan's outstanding international competitiveness is partly explained by an ability, fostered by state agencies such as the Ministry of Finance and the Ministry of International Trade and Industry, to make structural adjustments in exports, from labourintensive textiles to capital-intensive ships and steel to sophisticated consumer durables such as cars and televisions and, most recently, to knowledge-intensive industrial machinery and information electronics [32; 85].

Until the 1930s manufacturing output was dominated by food-