The Arc of Japan's Economic Development

Arthur Alexander

The Arc of Japan's Economic Development

Arthur Alexander

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2008
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Simultaneously published in the USA and Canada
by Routledge
270 Madison Ave, New York, NY 10016

Routledge is an imprint of the Taylor & Francis Group, an Informa business

Typeset in Times New Roman By Prepress Projects Ltd, Perth, Scotland

Printed and bound in Great Britain by TJ International Ltd, Padstow, Cornwall

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data
Alexander, Arthur J.
The arc of Japan's economic development/Arthur Alexander.
p. cm.
ISBN 978-0-415-70023-8 (hardcover) – ISBN 978-0-415-70024-5 (softcover) 1. Japan–Economic policy. 2. Japan–Economic conditions. I. Title.
HC462.A4597 2007
338.952–dc22
2007015690

ISBN10: 0-415-70023-X (hbk)
ISBN10: 0-415-70024-8 (pbk)
ISBN10: 0-203-79986-0 (ebk)

ISBN13: 978-0-415-70023-8 (hbk)
ISBN13: 978-0-415-70024-5 (pbk)
ISBN13: 978-0-203-79986-4 (ebk)

The Arc of Japan's Economic Development

Interest in Japan has shifted over the years, from a focus on the miracle economic growth of the post-war period through the 1970s, to a fascination with the apparent export powerhouse and then to a morbid curiosity into how and why Japan has slowed down. This core textbook provides an overview of the Japanese economy from the period before the Meiji Restoration, and its astonishing growth throughout the twentieth century, before conducting a thorough analysis of the contemporary scene and the implications of the recent financial crisis.

The book begins by exploring Japan's economic development from the 1600s to the end of the American Occupation, focusing on the circumstances behind the government's preferences for intervention and guidance in economic affairs to achieve its objectives. It then traces the survival of this approach under the Americans. Separate chapters incorporate original research that illustrates the effects and gradual fading of that policy approach in the post-war era.

Alexander reviews the foundations of modern Japan's economic development and shows how the state's central objective in the 1870s – to develop industrial capabilities to supply a modern military that could protect the country – led to government officials' distrust of capitalism and a desire to guide economic affairs themselves, especially during war and post-war chaos. The author goes on to highlight how returns on capital declined for 100 years until 2000, how industry growth shifted to a new trajectory in the 1990s and how Japan's economic characteristics grew to look more like those of the US. The final chapter projects the Japanese economy into the future, emphasizing the rise of diversity across regions, industries, companies and individuals.

The research on industrial structure, capital returns and Japan's similarities and differences from other countries breaks new ground. This book is particularly relevant to all those studying the contemporary economy of Japan, historical and economic development and economic structural change, among others, and will also benefit financial analysts.

Arthur Alexander is a Visiting Professor of Economics at Georgetown University and Johns Hopkins School of Advanced International Studies.

This book, as with everything else that I have written for more than 40 years, is dedicated to my wife, Elaine, the motivating spirit behind it all

Contents

Figures

Tables

1 Japan's place in the contemporary economic world

Prologue: the arc of the Japanese economy

For 150 years, the Japanese economy followed the arc traced by a ballistic trajectory: an economy blasted from the muzzle of a Meiji-era cannon, an arc characterized by increasing, and then falling, economic growth, development and government intervention in the economy.

Japan's approach to economic affairs was conditioned by the circumstances surrounding the origins of the modern Japanese state in the Meiji Restoration of the 1870s. A central objective was to develop industrial capabilities to supply a modern military force that would protect Japan from the European and American colonial powers. The centrality of defence led to the dominance of the military in government and the primacy of military objectives. A crucial institutional feature that influenced events was that the Imperial Army was accountable only to the emperor, bypassing the prime minister and cabinet as well as the Diet, often placing army behaviour beyond the reach of political control.

A combination of defence, political and economic motivations created a powerful logic for an expansionist imperialism. This logic was supported by mimicry of western imperialist practice, including the creation of colonies. The Japanese government promoted economic and military expansion in Taiwan and Korea. Japan's military forces were in Manchuria from the early 1900s, at first to bar Russian expansion and then to develop Manchuria's resources.

To promote industrialization, especially the underpinnings of military industry, the state encouraged the import and then the indigenous development of technology and industry in fields such as steel, machine tools and shipbuilding. Led by military planners in the 1930s, the resources of Manchuria and China were sought to guarantee the availability of industrial inputs and to secure markets for finished goods. This policy became especially prominent when the Great Depression in the early 1930s suppressed Japan's trade with Europe and North America, which had the side-effect of diminishing the western powers' ability to influence Japan's external behaviour.

Drawing lessons from the large-scale fighting during the First World War, Japan's military strategists saw the need for mobilization planning, led by the military itself and by like-minded government bureaucrats. Mobilization staff promoted the ideas of government authority over economic affairs. Manchurian industrial development in the 1930s, coordinated by these mobilization bureaucrats, trained a cadre of government officials to distrust Japan's capitalists. Motivated by Marxist beliefs and the examples of state planning in the Soviet Union and Germany's mobilization economy, the economic planners in Manchuria returned to Tokyo to organize the country for total war. Back home, they faced opposition to their policies and were unable to implement them as thoroughly as they desired, but they managed to alter the structure of the economy in important ways, especially in corporate finance and governance. Some scholars refer to these ideas, methods and institutions as the 1935–45 system, which continued to influence public policy and private economic activity for several more decades after the war.

Looking backward, there is ample evidence to identify a linear sequence from the Meiji Restoration to the Second World War: defeat, Occupation and Japan's post-war economic policy. However, it would be wrong to assert that there was an inevitable linear progression. At every step along the way, other paths could have been taken, paths that were vigorously advocated by many politicians and government officials. Until the military takeover of the government in the mid-1930s, Diet members and the electorate sought to rein in the military's adventures and stop its more dangerous policies. Finance ministers attempted to control the army through the budget. Right up to Japan's attacks on the United States and British possesions in December 1941 (Australia, Hong Kong, Borneo, etc.), an active political opposition tried to thwart military ambitions. However, when opposition to expansion looked like it might be effective, assassinations and coups ended such endeavours.

Although Japan suffered a devastating defeat in 1945 and was ruled for seven years by an occupying army, the native bureaucrats' methods of economic management that had prevailed for 10 wartime years did not disappear. The Americans chose to work through the existing organs of government. Through 1948 they reinforced Japanese bureaucrats' inclinations to use the state to monitor the economy and intervene when it was deemed necessary or desirable. Industrial coordination was not a strange idea to American bureaucrats. In both the First World War and the Second World War, the US government created agencies to manage military production, allocate materials, and control prices and wages. The lessons learned from these experiences were that government had an obligation and ability to coordinate vast enterprises in times of crisis.

The weight of the evidence is that direct government involvement in the immediate post-war economy, even with the backing of the Americans, most likely did not achieve its main objectives, even in the high-priority production of coal. Nevertheless, the commonly told story is one of successful government intervention. The myth that wise bureaucrats managed the post-war coordination problem became embedded in the official government consciousness and in the mind of the public. This view bolstered officials' inclinations to guide economic affairs to meet varied objectives, at times strategic, but at other times political or personal.

Though often confused, inappropriate and twisted by politicians and industry, an interventionist-minded government presided over the Japanese economic miracle. Battles for dominance within the government weakened any sense of coherent strategy, but bureaucrats' distrust of markets plus belief in their own vision continued to influence written and unwritten regulation and guidance. Of course, Japan is not unique among developed countries for its faith in bureaucratic judgments and a disinclination to rely on markets to achieve social goals. France and Germany come to mind as other examples of these tendencies.

The 1935–45 system, which gradually lost force amidst the conditions of rapid post-war economic growth, eroded even faster in the 1970s and especially since the 1990s, when the economic environment and political institutions changed. In the economy, growth slowed, deregulation occurred in finance, transportation, retail and other areas, and foreign companies took a larger role in the domestic economy. Greater weight was given to shareholders as financial markets regained their importance in corporate funding. In politics, the shift in the 1990s to single-member parliamentary districts and the increasing centrality of the media in elections altered party power structures and nudged politicians' incentives towards broader, national interests. By the twenty-first century, Japan's economy had moved away from its nineteenth-century origins.

The scale of the Japanese economy

By any measure, Japan is in the top tier of economic powers. At the beginning of the twenty-first century, Japan's economy was the third largest in the world, after the United States and China. Fifty years earlier, when Japan was rebuilding from the destruction of the Second World War, its gross domestic product (GDP) ranked number seven. High rates of economic growth following its wartime devastation propelled Japan into third position by 1966, behind the United States and the Soviet Union, where it remained until the dissolution of the USSR in 1990, when it moved up one position. However, China's rapid growth displaced Japan in the mid-1990s, according to several different estimates. (Such international comparisons are made using purchasing power parities; see Box 1.1.)

Not only did Japan's economy get big, its people also became wealthy – Japan was the first Asian nation to join the European and North American club of rich nations. As measured by GDP per person, it moved from 32nd position in 1950 into the top 10 between 1985 and 1990. Finer distinctions are harder to make because they depend on the other countries included in the comparison and the particulars of how purchasing power parities are constructed. Figure 1.1 shows Japan's ranking in terms of GDP per capita according to the *Penn World Table* (PWT 6.1; see Heston *et al.* 2002).

Japan's economic growth slowed in the 1990s and its relative position deteriorated: from number five in 1994, it slipped to 12th place by the end of the decade. Japan is not the only rich economy to slide down in the rankings. Switzerland, for example, which was in first place on the 1954 list, slipped to number seven by 2000. Japan and Switzerland have not become poorer, but other countries have grown faster and overtaken them; both are still among the world's most affluent economies.

Box 1.1 Purchasing power parity

Comparing economic output across countries extends the concept of comparing the same country at different times. The national income framework – the system of national accounts – is the standardized statistical device for describing countries' macroeconomic affairs. Gross domestic product is the most common measure of aggregate output in the national accounts. However, since prices are used to calculate the values of the millions of goods and services contributing to GDP, price changes from one period to another complicate assessments of changes in real output. Price indices such as the GDP deflator are used to deal with these problems; nominal GDP can be converted into 'real' values by dividing the nominal figures by the price index.

Economists often make distinctions between nominal and real values. 'Nominal' refers to the actual, unadjusted, 'named' monetary amount; nominal values and prices are the everyday ones seen in shops, advertisements, annual company reports and interest rates. 'Real' values, as the term implies, try to get behind the price changes to measure values as if prices had not changed. To estimate real values, it is necessary to adjust the nominal values to account for price changes that may disguise changes in the output of stuff: of tangible goods and services. Real, price-adjusted values are proxies for the number of items produced or resources used in production; real interest rates, for example, subtract the rate of price inflation from the nominal interest rate to reveal the quantity of real expenditures that can be made at the end of a period with the nominal interest payments.

The process of comparing different countries' outputs begins by valuing each country's output by its own set of prices, which presents each country's GDP in its own currency. The next step converts one country's output into the other country's currency. The obvious method of conversion is to use the exchange rate, which defines the value of one currency in terms of another.

The problem with using the market exchange rate is that it responds to forces that are unrelated to changes in domestic prices, such as international capital flows; therefore, the output of a country estimated with exchange rates would rise and fall with the currency markets, suggesting swings in a country's output that are not, in fact, occurring.

Economists have developed another method for converting one country's output into the currency of another country by using so-called purchasing power parity (PPP). The ideal method for comparing the outputs of two countries would be to value each country's production of final goods and services using the same set of prices. In practice, this is impractical because in any modern country there are millions of different goods, services and prices. Instead, a sample of representative prices is used as a substitute for the full array.

The PPP exchange rate is computed by calculating the cost of a representative market basket of goods and services in the two countries. The PPP exchange rate between the yen and the dollar, for example, is the cost in Japanese yen of a basket of goods and services representing total GDP divided by the cost of the same basket in US dollars. PPP, therefore, is the number of units of a country's currency needed to purchase the same amounts of goods and services as one unit of the currency in the base country. Advanced countries with competent statistical agencies use more than 3,000 prices to generate PPPs.

PPPs are usually superior to exchange rates in international comparisons, but there are exceptions. For transactions that cross national borders – international trade and capital flows, for example – exchange rates often give better measures of their economic effects.

Japan's growth since the nineteenth century

Observers of the Japanese economy in the 1960s and 1970s often used the term 'economic miracle' to describe the headlong growth of those years. However, a backward look over a longer horizon reveals an experience that is no less miraculous. Today, many countries in all parts of the world have made the transition from backwardness to modernity. Japan's progress, however, was a first of its kind. In the later part of the 1800s, it deliberately set out to remake itself from a peasant economy into an industrial power, with the primary objective of generating the technology and industry required to produce the armaments to defend itself from the industrialized colonial powers. (This story will be discussed in detail in the next chapter.)

The growth of the modern Japanese state is shown in Figure 1.2 along with that of the United States. To make this comparison, Japan's GDP was converted first to constant 1990 yen and then to dollars using the OECD's 1990 PPP of 195.3 yen

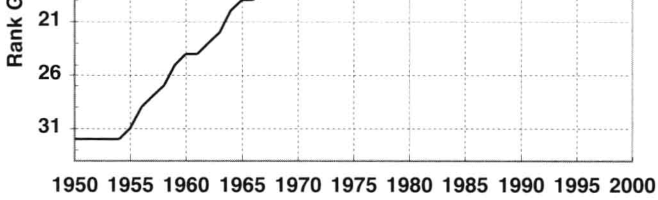

Figure 1.1 Japan's global ranking by GDP per person, 1950–2000. Source: Penn World Table 6.1.

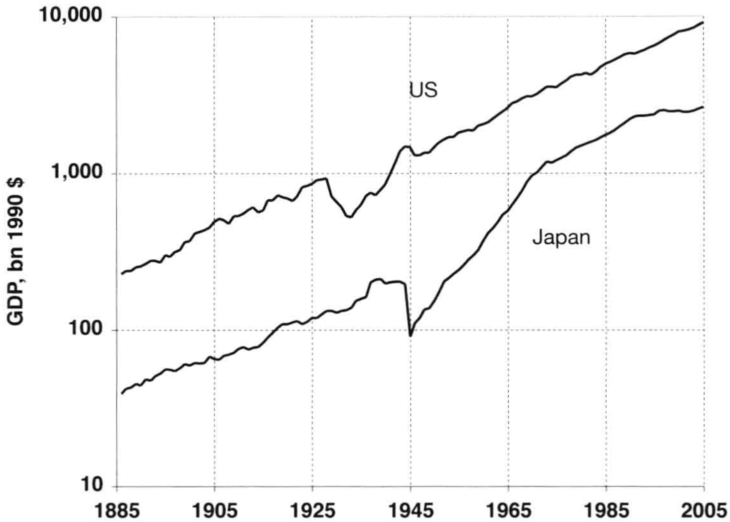

Figure 1.2 GDP in Japan and the United States, 1886–2005 (billion 1990 dollars).

per dollar. Note that the vertical axis is plotted on a logarithmic scale; each unit is 10 times the size of the preceding one. On such scales, the slope of a line is a measure of the growth rate; a steeper line means faster growth. Over the 40 years from 1886 to 1926, Japan grew at an annual rate of a bit more than 2.8 per cent. During those same years, American growth averaged 3.5 per cent and the United States overtook the United Kingdom to become the largest and most productive economy.

American growth has been remarkably stable, except for the Great Depression of the 1930s and the Second World War, in which the United States was engaged from 1941 to 1945. Japan's Asian-Pacific war escalated from battles in China and Manchuria in the early 1930s, to widespread warfare in China in the late 1930s, to full-scale warfare in the Pacific in 1941 against the United States and its allies, and defeat in 1945.

An explanation for the comparative stability of American growth rates is based on a theory of economic development. One aspect of underdevelopment is that a poor country can grow rapidly by absorbing capital and technology from more advanced economies, if it possesses an appropriate institutional and human infrastructure. In such situations, investment leads to fast growth as the country catches up with its potential. A developing country is aided in this endeavour by the fact that the global economic leaders have already produced and demonstrated productive technologies and methods.

For most of the period shown in Figure 1.2, the stock of capital in the United States was appropriate to its stage of development and its place on the technological frontier. There was little to be gained from more rapid capital accumulation or from catching up with and imitating the global leader; it was the leader. Growth came from the slow accumulation of capital, the development of technology and the improvement of productivity. Before 1970, Japanese economic growth captured the advantage of catching up by deepening its capital base and absorbing technology from the more advanced countries. The country then reached maturity when productivity rather than capital accumulation should have become the major propellant to growth. However, Japan never fully shifted to this new mode of economic life – a subject that will occupy later chapters.

America's production decline and fitful recovery from the depression is clearly visible in the first half of the 1930s. Japan, in contrast, was much less affected by the global downturn as its attentions turned to wartime production, which drove industrial output for several years before the destruction wrought by aerial bombing and maritime disruption of supplies caused reductions in military output and then collapse in 1945, the year of Japan's surrender. (Japan's data for 1945 are largely conjectural; they were estimated by interpolations between adjacent years.)

The final attacks on Japan in the Second World War destroyed production capacity, infrastructure and housing; disrupted supplies from former trading partners in Asia; and hastened the return of millions of military personnel and civilians from the war zones, former colonies and occupied territories. Production collapsed, jobs and incomes disappeared and hunger was rampant.

By 1955, post-war reconstruction and the reestablishment of business relations at home and abroad enabled the country to embark on a spurt of very rapid growth. Real GDP growth, measured over 10-year periods to average out short-term fluctuations, jumped above 9 per cent annually in the decade ending in 1960 and surpassed 10 per cent a few years later. A foremost reason for such a spurt is that the nation had preserved its human capital and basic institutions from the pre-war period, but suffered from severe wartime disruptions and capital destruction. Consequently, the economy was in extreme disequilibrium; when investment recovered and relationships re-established, the returns to the new additions of capital were very large. However, by the 1970s, the capital stock approached equilibrium levels, returns declined to values appropriate to the mix of human, physical and institutional capacities, and growth slowed.

The 1970s marked a distinct deceleration of the post-war growth miracle. While still outstanding in international comparisons, 5 per cent growth in the 1970s seemed to be a near disaster to a people grown accustomed to double-digit rates. The second half of the 1980s brought new joy to many Japanese, who believed that the good old days had returned when GDP expanded by 6 per cent annually; this burst of output, however, was not a return of the miracle years, but rather was associated with a bubble of asset prices, which stimulated investment and consumer demand to unsustainable levels. As is evident from Figure 1.2, the 1990s saw a further flattening of the growth curve and deceleration of the economy, which managed to eke out average yearly increases of just over 1 per cent.