

CIRJE-F-344

**Understanding the Economic History of Postal Services:
Some Preliminary Observations from the Case of Meiji Japan**

Janet Hunter

London School of Economics and Political Science

May 2005

CIRJE Discussion Papers can be downloaded without charge from:

<http://www.e.u-tokyo.ac.jp/cirje/research/03research02dp.html>

Discussion Papers are a series of manuscripts in their draft form. They are not intended for circulation or distribution except as indicated by the author. For that reason Discussion Papers may not be reproduced or distributed without the written consent of the author.

Understanding the Economic History of Postal Services: Some Preliminary
Observations from the Case of Meiji Japan

Janet Hunter
Economic History Department
London School of Economics and Political Science

Preliminary Draft, Not for Citation

Abstract

This object of this paper is to raise some methodological issues relating to the economic history of postal services, an area relatively neglected by Western economic historians, and to use Japan in the second half of the 19th century as a case study for exploring some of these issues. The first half of the paper surveys the previous historical literature on 19th century postal systems, and then considers several key analytical issues, in particular the fact that postal systems were government monopolies, the nature of postal systems as technologies, and the significance of the improved information flow that these systems offered to an industrializing economy. The second half of the paper looks at the economic significance of the Meiji governments' postal regulatory framework, the use that was made of these provisions, and how this use changed over time. The analysis focuses in particular on the issue of demand for and supply of postal services, and suggests that in most cases the increasing use made of the service was supply-led. The conclusion puts Japan's postal usage in this period in comparative perspective, and suggests possibilities for future research.

Introduction

The importance of a transport and communications infrastructure in the process of industrialization has long been recognized. Admiration for the progress of transport networks has been reflected in historians' extensive analyses of turnpike, canal, shipping and railway systems.¹ Recent work in economic geography has emphasized the role of falling communication costs and increased factor flows in the development of the international and domestic economies, and in the locational pattern of economic activity.² The development of modern electronic communication systems and the 'knowledge' economy has served to focus attention further in this area. A combination of growth accounting and a social saving approach has helped cliometricians to move towards quantifying the impact of these new technologies on economic growth and industrialization. However, measuring the impact of some aspects of improved and cheaper transport and communications infrastructure on economic and manufacturing growth in history has remained elusive.

This paper is concerned with the economic significance of an unfashionable and neglected element of the communications infrastructure, namely the postal service. Postal systems have not only enabled the movement of certain commodities and artifacts, they have also played a key role in the transmission of information, a function invariably overshadowed by considerations of the communications revolution and knowledge economy of the late twentieth century. In an environment in which information is equivalent to money, economic actors have long needed to know about production, prices, consumers and risks. Well before the modern period, of course, the circulation of commodities and information between regions and localities was of major economic significance, but without provision for such circulation, trade could not take place and markets could not expand. As populations,

¹ Typical of the earlier scholarship on communications development in England is Clapham, *Economic History of Modern Britain: the Early Railway Age*, chs.3, 9. A new era of scholarship was initiated by the pathbreaking work of Robert Fogel (*Railroads and American Economic Growth*), and more recent writings include Harley, 'Oligopoly Agreement and the Timing of American Railroad Construction'; Szostak, *Role of Transportation in the Industrial Revolution*.

² Eg. Crafts & Venables, 'Globalization in History'; Glaeser & Kohlhase, 'Cities, Regions, and the Decline of Transport Costs'; Crafts & Mulatu, 'How Did the Location of Industry Respond to Falling Transport Costs'.

production and trade expanded in the pre-industrial period, demand for information tended to increase as well.³

The new national postal systems of the nineteenth century were in part a response to such increased demand. These systems did not always allow for the most rapid exchange of information and goods, but the average speed of transmission was considerably faster than in earlier times, particularly as means of transport improved. With the spread of the telegraph in the second half of the nineteenth century, information where speed was of the essence, such as price information or urgent personal communications, was more likely to be conveyed by telegraphic means. However, efficient postal systems allowed for the exchange of personal and impersonal information on an historically unprecedented scale. The dominance of postal systems over a long period persisted because in two major respects they faced no serious competitor. Firstly, they were established as state monopolies, which not only gave them legal prerogatives and allowed them to reap the benefits of economies of scale and scope, but also committed them to a range of obligatory functions, not the least of which was the need to ensure provision across the political jurisdiction as a whole. Secondly, the telegraph and telephone, which emerged as potentially powerful competitors in the transmission of information, could not compete in the carriage of physical commodities and written information, whether samples, legal documents, money orders or newspapers and journals. In both these cases access was in addition more patchy, and use more expensive. For most of the modern period, therefore, postal services remained the cheapest and easiest means of communicating information, and the one to which the greatest part of the population had easy access.

Contemporaries accepted almost unquestioningly the crucial role of the post as part of the infrastructural development that was integral to the industrialization process. That we have continued to take this role for granted is perhaps in part the reason why the economic implications of the post have been relatively neglected by economic historians. Clapham's enthusiasm for railways, canals and turnpikes was not matched by an equivalent enthusiasm for the postal system, which does not figure in his account. In most modern economic history accounts, the role of the postal network receives at the most a passing mention. There are a few articles and books that explore specific aspects of postal development, or offer a brief overview, but

³ Daniel Headrick uses the example of Western Europe in the period 1700-1850 (*When Information Came of Age*, ch.1).

much of the study of postal system development has been undertaken not by academics, but by philately enthusiasts or postal officials. What has been lacking is a basic framework for analyzing the significance of postal systems in modern economic history. The main objective of this paper is therefore to suggest some possible steps towards the development of such an analytical framework, and to apply these ideas to a selected case study.

The first half of the paper introduces the main approaches adopted in scholarship on postal networks in the nineteenth and early twentieth centuries. It discusses the extent to which postal systems possessed distinct features as communications networks; the implications of those features for any attempt to apply existing approaches to the economic contribution of transport and communications systems; and the importance of disaggregating the kind of information transmitted. It concludes by proposing a number of headings of analytical value in understanding the economic significance of the post, and the improved communications network that it offered. To be useful, these headings must embrace the functions that postal systems were specifically set up to discharge. These functions can be broadly summarized as falling into two, often overlapping categories: the transmission of physical commodities (including money or money equivalents) and the transmission of information and knowhow. Many postal services undertook additional functions, such as acting as savings banks or offering insurance, but it was the transmission of commodities and information that remained their core function, and which will be considered here.

To be of value to the historian these headings have also to be of practical use. They must suggest viable avenues for empirical research, and be capable of indicating the dynamics of change over a given time period. The second half of the paper takes one particular postal system as a case study, with a view to offering some important insights into the way in which postal data can be used to shed light on economic development more broadly, as well as on the relationship between growth in postal communication and the growth of the economy as a whole.

Analysing the Economic History of Postal Systems: a Preliminary Methodology

While the existence of systems for the transmission of goods and information dates back as far as recorded history, the appearance of the modern, government-run post office was essentially a nineteenth-century phenomenon. For many governments

of this period postal systems were major agents in the emergence of the nation state. Communications networks could in turn be regarded as instruments of state power, and in many countries the post office became the public face of the state. Postal system architects saw postal services as both a tool and an embodiment of national aspirations. Post offices were major institutions, which operated as arms of the central bureaucracy and undertook particular employment and labour management policies. The flow of information that was supported by the post was integrally related to the development of modern management systems. Much previous research on the post reflects these political and bureaucratic preoccupations. Richard John's research on the development of the US postal service, for example, demonstrates the system's importance for national unification and citizenship, while Ying-wan Cheng's study of late nineteenth century China explains how postal reform came to be seen by many as essential to the enlightenment and modernization process.⁴ Martin Daunton's study of the British Post Office includes extensive consideration of the organization and management structures of the business.⁵ JoAnne Yates' analysis of systematization in management in the US shows the importance of correspondence in the operation of firms.⁶ Szostak's work on transport identifies information flow as a by-product of better transport networks, noting in particular that increased passenger transport was crucial to the flow of information at a time when tacit knowledge predominated and technical and other skills were best transferred through personal interaction, but he also mentions that the changes taking place in the 18th century included greater use of the postal service, including for the sending of valuable commodities.⁷ However, while these facets of the postal system clearly have major implications for the study of economic development, the economic implications of postal development *per se* have received relatively little attention. Still less has most of the existing research offered any methodology for analyzing the significance of postal systems in economic growth and industrialization.

The fact that postal systems were government monopolies is fundamental to any understanding of their economic role. It is on this aspect that most of the recent literature on the economics of postal systems has tended to focus, locating the study of the post in the broader literature on (natural) monopoly and the economics of

⁴ John, *Spreading the News*; Chang, *Postal Communication in China*.

⁵ Daunton, *The Post Office*.

⁶ Yates, *Control through Communication*.

⁷ *The Role of Transportation in the Industrial Revolution*, p.24ff.

regulation.⁸ As state monopolies postal systems were not normally subject to competition either from other forms of communication, or from private sector competitors, although they invariably made use of such other forms of communication. Decision-making in postal systems was subject to political will, and not purely to the dictates of the market. While it was the state that invested in the postal service, and which also received the income from those who paid to use it, the returns on that investment extended far beyond this income. The state took a share in these wider returns, for example through enhancing the effectiveness of its administration or building the foundations of the national economy, but a sizeable part of those returns were seized by the private sector and by the people more broadly. In essence, many of the economic benefits of the new systems accrued not to the state that was the investor and operator, but to the users or consumers of the service, whether individuals or organizations. It is therefore of critical importance to ask who used the postal network, and what did they use it for.

Even the state, however, had to consider the costs and benefits of establishing such a system. Establishment required considerable amounts of up front investment in advance of receiving any revenue, and there was enormous uncertainty about the size and economics of the market that made pricing decisions very difficult. States had to make critical decisions about levels of subsidy and distribution of costs between users, as well as difficult assessments about the potential for economies of scale and the impact of expansion of the network. Postal systems were also in themselves a form of new technology. While they made use of other new technologies, such as railways, in effect piggybacking on their development, they also developed their own new techniques, particularly in relation to the interconnections between the different modes of transport utilized. Developing efficient mechanisms for the transfer of mail from the postbox to the post carriage, and then to the railway wagon, was a key to efficiency. Postal systems also entailed new organizational technologies and fundamentally influenced other new forms of organization, management and institutions.

The dual function of the post, transmitting both information and goods, combined with its state monopoly status, means that earlier research on the past and present economic importance of communications and transport networks can at most

⁸ Eg. Crew & Kleindorfer, *Economics of Postal Service*.

suggest possible approaches. While it is apparent that considerable ‘social savings’ might have accrued to the economy through the benefits to users from speed and ease of communication, the difficulty of measuring the information function and the absence of potential substitutes suggests that a Fogel-type exercise would capture at best only a small part of what the post was able to deliver.⁹ Recent research on the relationship between postal activity and industrial activity is potentially instructive, but data problems tend to limit the historical application of such approaches.¹⁰ The post’s role as part of the infrastructure for information flow, which may well have exceeded its function as a transmitter of goods, even after the advent of parcel post networks, suggests that it may also be instructive to look at empirical research on the economic impact of telecommunications networks – often likewise government monopolies – in contemporary developing economies. Most of this research has sought to measure returns on investment in communications, for example a cost-benefit analysis of extending telephone or internet access to a particular locality or region. While such research has tended to assume that better communications networks help to change popular attitudes and coordinate national economic development impulses, of particular relevance to the postal system is the argument that better information networks support market exchange and help to support resource mobilization. More specifically, this improved information flow reduces market imperfections, facilitates better investment decisions, and signals changes in the demand and supply elasticities used to estimate the costs of industrial production and import substitution.¹¹ Improved communications networks also reduce transactions and coordinating costs, thereby possessing the potential to generate positive externalities for the economy as a whole, and revolutionize the operation of economic organizations such as the firm.¹² Pursuing these attributes in an historical context, however, means thinking about the scale of information flow and its composition.

⁹ Social savings in the US railroad case were identified as the difference between the cost of shipping goods using railways, and the cost of shipping through other means of transport, notably canals (Fogel, *Railroads and American Economic Growth*, ch.2). These savings were then related to total GNP.

¹⁰ Yamaura (‘Yūbin Jigyō ni kansuru Sangyō Renkan Bunseki’) used inter-industry tables to analyse the demand structure of postal services in Japan, and the relationship between postal services and final demand for 1990 and 1994. However inter-industry tables are of relatively recent origin in most economies.

¹¹ Jussawalla & Lamberton, *Communication Economics and Development*, ch.1.

¹² See eg. Bowles & Maddock, ‘Supply of Direct Exchange Lines’ and Braman, ‘Telecommunications Infrastructure’. For the impact of improved communications on the internal organization of the firm see eg. Ishii, *Jōhō Tsūshin no Shakai Shi*, pp.85-90.

We know that while the stock of knowledge is critical for the economy, the diffusion and utilization of that knowledge is likely to be of equal importance. Economic historians may accept, for example, that the division of labour can be a solution to the constraints on individual knowledge and a means of generating specialist knowledge that may in turn lead to further advances, but we also accept that useful knowledge only becomes significant to the economy once it is shared.¹³ In this respect nineteenth century postal systems can be seen as significant means of sharing useful knowledge with those outside the personal nexus traditionally used to impart information, and reducing the costs of accessing that knowledge. They played a key role in making the spread of codified knowledge easier and more cost-effective. However, they did this in a particular way. As Headrick has noted, although postal services aided indiscriminate means of information transmission, such as government edicts or newspapers, they also catered for information flow between individual people or organizations.¹⁴ This in turn allowed for a higher degree of choice and selection of the knowledge to be sent or received. Economic actors could target both information and commercial items sent by mail.

Postal networks therefore manifested a range of functions and attributes of potential importance to growth and change of the economy, which may be simply summarized as follows:

- a) reducing the costs of access to both collective and individual knowledge, hence facilitating the diffusion of that knowledge;
- b) reducing market imperfections through enhanced information flow;
- c) allowing for better choice of information sent and received;
- d) facilitating the circulation of commodities;
- e) facilitating the circulation of money and capital;
- f) acting as a major employer and significant business with forward and backward linkages.

Finding the historical evidence to substantiate these assumptions is easier in some cases than others. Statistics on the extent and growth of postal communication may correlate with the overall growth of economic activity. Statistics on the volume and

¹³ For comment on this see Loasby, *Knowledge, Institutions and Evolution in Economics*, ch.8, and Mokyr, *Gifts of Athena*, chs.1, 7. Mokyr's distinction between propositional (Ω) knowledge, and its application to create prescriptive (λ) knowledge, the knowledge potentially useful for the economy, is helpful.

¹⁴ Headrick, *When Information Came of Age*, ch.6.

cost of mail items can give us pointers towards the cost of transmitting certain commodities and information access, as well as the scale of information diffusion. Data on the direction and amount of domestic and international mail can enable us to identify how far the flow of items mirrored the geographical pattern of economic change, industry specialization, or the openness of the economy. The linkages between postal systems and railway networks, for example, have been detailed both by postal authorities and by railway companies, while the employment systems of many postal services have already been well-documented by scholars. To be able better to analyze the role of postal systems in transmitting information, however, we need some kind of breakdown of the flow of information, to see how it changed over time. The impact of information flow will depend crucially upon the kind of information that is being transmitted. The problem here, of course, is that we cannot know the content of every mail item. Even if we did, we would still be left with the difficulty of distinguishing which content was potentially important for an economy. However, we can obtain information on different categories of postal item, and the economic significance of some of these categories is apparent. Money and money equivalents, for example, were invariably categorized separately from standard mail items, as were items such as commercial samples. To tackle all, or even most, of these exercises lies beyond the scope of a single article, but the remainder of this paper offers the results of a preliminary analysis of one particular postal system along the lines indicated above. It is above all concerned with who used the postal system, how much they used it, what did they use it for, and how did this use change over time.

The Postal System in Nineteenth Century Japan

The case study used here for a preliminary analysis of the economic significance of the post is Japan. Even for the period prior to the Meiji Restoration of 1868, links between the communications and transport infrastructure and the pattern of economic activity in Japan have been well documented. A process of national market integration was already taking place at this time, associated with extensive mobility of products and capital, as well as of factors of production.¹⁵ However, the Meiji period (1868-1912) was characterized by an acceleration of the growth and

¹⁵ See eg. Wigen, *Making of a Japanese Periphery*; Mosk, *Japanese Industrial History*; Vaporis, *Breaking Barriers*; Hayami, Saito & Toby, *Emergence of Economic Society*.

structural change of the Japanese economy. With an estimated growth rate of national income of 2.7% p.e. over the years 1885-1915,¹⁶ and a growing modern manufacturing sector, Japan was by 1914 seen by both Japanese and non-Japanese to be well on the road to industrialization. The role of the government in this process of change has been much debated, but the scale of its contribution to infrastructural development is indisputable. If we look at the growth of transport and communications infrastructure, we find that road, railway, shipping, postal, telegraphic and telephone networks were all at some point either spearheaded by government initiatives or under direct government control. In 1914 the government had abandoned sporadic early attempts to intervene in the growth of the merchant marine, but had nationalized much of the railway network, managed all the main highways, and exercised direct control over post, telegraph and telephone systems. A centralized Ministry of Communications coordinated and managed transport and communications policies in what was deemed to be the national interest.

The new communications systems showed every indication of facilitating a dramatic increase in the circulation of goods, people and information, and have been widely credited with accelerating market integration across the Japanese economy. The extension of some of these networks has been dealt with in considerable empirical detail in the English language literature. Wray's business history of the NYK shipping company and Steven Ericson's study of the growth of the railway system, for example, have made major contributions to our understanding of the transport system.¹⁷ Communications networks have remained a significant area of study for economic historians in Japan.¹⁸ Even in Japan, though, the postal service has tended to be marginalized in the considerations of most scholars. A number of works have appeared on the development of Japan's postal system, but only a few have attempted serious analysis of its contribution to and role in economic development. The eminent economic historian Tsuchiya Takao used the occasion of the centenary of the founding of the post to claim a strong correlation between the use of the post and fluctuations in Japan's economy,¹⁹ but never sought to develop his analysis further. Sugiyama Shinya, in pathbreaking articles on the communications

¹⁶ Nakamura, *Economic Growth in Prewar Japan*, p.7.

¹⁷ Wray, *Mitsubishi and the NYK*; Ericson, *Sound of the Whistle*.

¹⁸ For an overview of some of this recent scholarship see Nakamura, 'Kindaiteki Un'yū-Tsūshin Mō no Seibi'.

¹⁹ Tsuchiya, 'Yūbin ga Hyakunen ni Hatashita Yakuwari', pp.20-6.

revolution in late nineteenth century Japan, attempted for the first time to measure the growth of communications networks, including the post, and noted in particular their regional economic effects, but also concluded that there was a considerable need for further research in this area, as well as on the effects of improved information flow on urbanization, migration, markets and individual industries.²⁰ A subsequent work by Ishii Kanji looked at some of the political, economic and social implications of more efficient and speedy communications networks from the mid-nineteenth century. Ishii's work is particularly illuminating in analyzing how access to more accurate or faster information could influence the economic fortunes of individuals and businesses, and the significance of the postal service, as well as the telegraph and telephone, in supporting such access.²¹ Fujii Nobuyuki's work on the economic significance of telegraph and telephone, while not specifically concerned with the postal system, demonstrates clearly the functional divisions and complementarities of these three means of communication, as well as making general points regarding the significance of communications development in Japanese economic history also applicable to the post.²² This paper builds on the contributions of these scholars, but also seeks to take them further.

The rise of a government postal system in Japan coincided with the initial development of a modern industrial sector and the expansion of Japan's international trade.²³ Although it was only in the early 1870s that the government moved to establish a Western style postal system, by the 1880s its geographical coverage of the nation was as near total as was practicable, the consequence of a government policy committed to national integration and 'enlightenment'. Every effort was made to offer the poor farmer or shopkeeper in the remotest villages of the northeast a service equivalent to that accessible to the citizens of Tokyo or Ōsaka at a price that all were likely to be able to afford.²⁴

²⁰ Sugiyama, 'Jōhō Kakumei'; 'Meiji Zenki ni okeru Yūbin Nettowaaku'; 'Jōhō Nettowaaku no Keisei to Chihō Keizai'.

²¹ Ishii, *Jōhō-Tsūshin no Shakai Shi*.

²² Fujii, *Terekomu no Keizai Shi*.

²³ Information on the development of the Japanese postal system comes from a number of sources, including Teishinshō, *Teishin Jigyō Shi* vols.2, 5; Yūseishō Yūmukyoku, *Yūbin Sōgyō 120-nen no Rekishi*; Yūseishō, *Yūsei Hyakunen Shi*. The relative significance of Western borrowing and the extent to which the modern service built upon an existing system has been much debated (see eg. Westney, *Imitation and Innovation*; Abe, *Kiban'in no Kenkyū*).

²⁴ The pricing of the post and its implications will be discussed below, but the state's desire was for universal accessibility.

As in other countries, the postal service in Japan made extensive use of physical means of transport such as roads, railways and shipping, and developed in parallel with them. Research has shown that well before the late 19th century Japan had been experiencing increasing market integration of the kind closely associated with improved transport networks of the kind described by Szostak for England, in the form both of the main highways, such as the Tōkaidō, and coastal shipping. There had been a strong progression towards the formation of a national market and regional specialization, as well as informal networks for the spread of things such as technological knowhow.²⁵ The extent to which the modern postal service was offering a completely new opportunity should not, therefore, be exaggerated. It will be suggested, however, that Japan's status as a late industrializing economy was significant both in shaping the nature of the postal service, and in its ability to exercise a broader economic influence. Late 19th century Japanese industrialization was less dependent on tacit knowledge than some of its predecessors, and the new postal system played a significant role in facilitating the spread of critical codified information. It also played a crucial role in carrying market related information and in the transmission of small packages and valuable items (including money) at a time when alternatives were not available.

Notwithstanding the development of a telegraph system from the 1870s, and a telephone system from the 1890s, in Japan the postal system retained a near monopoly on the transmission of virtually all non-urgent or very local information, and on the carriage of a range of commodities, including money orders and small packages, well into the second half of the twentieth century. Figures 1 and 2 show the growth in post, telegraph and telephone communication over the first thirty years of modern operation.²⁶

The Japanese government's recognition of the significance of the postal service for economic activity is apparent in the way that the system was developed. This recognition is beneficial for historians for two particular reasons. Firstly, the official regulations that shaped the system were geared explicitly to the nature of the economy and the government's own economic objectives. These regulations therefore provide an insight into economic priorities and circumstances, and also offer

²⁵ See eg. Hayami, Saitō & Toby, *Emergence of Economic Society in Japan*.

²⁶ Non-logarithmic and logarithmic scales. The data is taken from Teishinshō Tsūshinkyoku, *Tsūshin Tōkei Yōran* 1902, pp.39-40, 44-6.

a yardstick against which use of the post can be assessed. Secondly, it meant that both central and local authorities paid enormous attention to the administration of the system, and have left historians many detailed records of its operation. This data can be used to explore the key question of who used the post, and what did they use it for. Official statistics on postal usage in Japan from the 1870s through to the First World War can offer pointers to shifting economic trends and priorities.

The remainder of the paper looks first at the provisions in the Japanese government's postal regulations that related specifically to economic and commercial functions. The following sections offer an overview of the usage made of the service, showing in particular how far users took advantage of the specialist provisions, and how this may have changed over time. Finally, this volume and composition of mail will be considered in the context of some of the issues raised in the first part of the paper, in particular the questions of demand for and supply of postal services, and of pricing strategies.

Postal Regulation and Economic Activity

The Japanese authorities initiated a state-run postal service in 1871, and moved to a uniform rate regardless of distance in March 1873, when a government monopoly over the carriage of post was also instituted. Many of the regulations to which the postal service was subject related to the carriage of items such as letters and postcards, whose informational content we can rarely know, and which may, or may not, have been of economic significance. However, the pronouncements of government members around this time make it clear that the post was seen as having, among other things, an economic function. In the original announcement of the introduction of the postal system communications was referred to as the 'life blood' of the country, and the authorities' assertion in 1921 that 'a system of communications is ultimately part of the facilities of culture, and goes hand in hand with the shaping of the development of industry and the raising up of the people'²⁷ demonstrates the persistence of early Meiji beliefs about the significance of spreading economic and commercial information and of communications more broadly. This perception of economic significance was reflected in many of the rules and regulations that governed the operation of the post during the Meiji period. Some of

²⁷ Teishinshō, *Tsūshin Jigyō Gojūnen Shi*, p.4.

these provisions were fairly general. At one stage, for example, it was possible for all materials relating to the encouragement of industry to be carried free of charge, and this provision was ruled to be applicable to items and information relating to the domestic industrial exhibitions of 1877 and 1889, and Japanese representation at the French international exposition of 1877.²⁸ Of greater ongoing significance, however, were the specific regulations aimed at enhancing the use of the post for purposes closely associated with the development of commerce, industry and agriculture. These regulations related mainly to the sending of money and money equivalents, the sending of commercial samples, patterns and models at reduced rates, and the sending of commodities for agricultural use, also at reduced rates. Provision was also made to facilitate the circulation of economically significant information, such as circulars relating to the promotion of industry and agriculture or share certificates. Parcel post was introduced with the specific needs of business in mind.

Special provision for the carriage of letters containing money was made as early as 1871, in the face of claims that such a facility was essential for the effectiveness of the new postal service between Tokyo and the open port of Yokohama. The maximum value of the money to be enclosed in any one letter was ¥100, but this amount was later reduced to as little as ¥30 in 1883, with the restriction that no individual could send more than one such letter a day to the same recipient.²⁹ The transmission of funds was subsequently complemented by the introduction of a system of postal money orders from 1875. There was a growing feeling that the inclusion of money in letters was unsafe, and that it was also liable to get lost. For much of the period until the early 1880s postmen were often armed with pistols to protect against attack, and postal wagons accompanied by guards riding shotgun to discourage potential theft. The authorities complained that money fell out of envelopes dropped into postboxes or bags, and users of the service failed to pay the additional fee required for such letters, leading to delay in delivery while the recipient was forced to pay up.³⁰ The carriage of money therefore became more restricted and money orders were introduced in an attempt to substitute. The postal money order system became more detailed over time, and in 1885 orders became subdivided into three separate categories: standard postal orders, telegraphic money orders, and small

²⁸ Teishinshō, *Teishin Jigyō Shi* vol.2, pp.278-85.

²⁹ Teishinshō, *Teishin Jigyō Shi* vol.2, pp.158-9.

³⁰ Teishinshō Rokujūnen Shi Kankōkai, *Teishin Rokujūnen Shi*, p.105.

postal money orders.³¹ Further provision was made for the carriage of valuable items through a system of registered mail from 1872, in relation to which the regulations acknowledged the need for a secure means of transporting things such as gold, silver and precious stones, but also instituted a system whereby the value had to be declared, thereby seeking to establish the locus of responsibility in case of loss.³² Other commercially significant items which received mention were share certificates and other money instruments, which under an 1884 ruling were allowed to be sent at a cheaper rate as printed matter, but which under a subsequent ruling in 1891 were returned to the standard letter category, along with public debt certificates, bills of exchange and promissory notes.

The second group of provisions related to the sending of commercial samples and artifacts. Since such items were for much of the period part of a broader mail category that included journals and newspapers it is not always easy to identify them as a separate element, but it is apparent that the government regarded such items as important in economic terms, and was committed to allowing them to be sent as cheaply as possible. When the service started early in 1871 mail items were thought of only as letters, but separate categories to cover items as diverse as newspapers, books and samples had already been added by the end of the year, and all could be sent at reduced rate. From 1883 samples of commercial articles and models for commercial or industrial use were clearly identified as items whose extensive and cheap carriage would be of broader benefit to the economy, and the importance of the cheap rate underlined. Provision was also made for the sending of commercial samples between Japan and other countries.³³ The remit of the category of commercial samples and models was a broad one, often defined by what local offices would permit to be sent. In 1893 it was reportedly applied to items related to the production activities of prison inmates, as well as items made by students at industrial and arts schools. Two years later the Hiroshima post office allowed small wooden or other models used in construction to be categorized in this way. Officials were concerned, however, that the provision could be abused by individuals attempting to sell goods by this means, and took steps to increase the bureaucracy needed to establish that only genuine samples could benefit from the preferential rate. When

³¹ Teishin Daijin Kanbō, *Teishin Shiyō*, pp.59-60, 107, 110-11.

³² Teishinshō, *Teishin Jigyō Shi* vol.2, pp.155-6.

³³ Teishin Daijin Kanbō, *Teishin Shiyō*, pp.93-6; Teishinshō, *Teishin Jigyō Shi* vol.2, pp.139-41.

non-sample goods, such as goods that had been ordered, or presents, were found to be have been sent as samples, they were initially charged double the cost of standard mail, and from 1900 returned to the sender.³⁴

The final significant regulatory category was that of goods related to agricultural use. Agriculture remained at this time the most important sector of the economy in terms of both national income and employment. These items had in some cases initially been included in the category of goods related to the encouragement of industry, but in 1889 the category of agricultural products and seeds (*nōsanbutsu shushi*) was formally established as a further subgroup of the items that could be sent cheaply. Six years later, in 1895, agricultural products were given their own separate category, and the price was cut by half. Again, what could come under this category appears to have been broadly interpreted by local offices, at different times including things as diverse as saplings for forestry development, rice sent for quality inspection, silkworm egg cards and trial seedlings.³⁵ In 1899 special provision was made for the carriage of silkworm egg cards by enlarging the maximum allowable item size (silkworm egg cards were of a standard size across the country, and the permitted dimensions of mail did not allow for sufficient packaging), and allowing the cards to be sent sealed rather than unsealed.³⁶ These measures were a clear reflection of the importance the authorities attached to sericulture and silk production, with raw silk by far the largest export item by value.

A final provision that had both commercial and non-commercial significance was the establishment of a system for parcel post in 1892. In setting up this facility the authorities looked to both Britain and France. While the mail service had already been able to make provision for some small packages in the form of the items discussed earlier, it had not prior to this date been possible to use the post on any substantial scale for sale and purchase. The setting up of the system was justified very much on these grounds, and opened the way for mail order purchase and cash on delivery, which was introduced right at the end of the Meiji period, just before the First World War.³⁷

³⁴ Teishinshō, *Teishin Jigyō Shi* vol.2, pp.139-41.

³⁵ Tsūshin Jigyō Gojūnen Kinen Shi Hensanjo, *Tsūshin Jigyō Gojūnen Kinen Shi*, pp.86-7; Yūseishō, *Yūsei Hyakunen Shi*, p.246.

³⁶ Tsūshin Jigyō Gojūnen Kinen Shi Hensanjo, *Tsūshin Jigyō Gojūnen Kinen Shi*, pp.79-80.

³⁷ Teishinshō, *Teishin Jigyō Shi*, vol.2, pp.146-9.

Postal Usage

Just because the government made such provision was no guarantee that demand existed for such facilities. We need to consider how far consumers took advantage of these particular provisions aimed at supporting economic activity. Tables 1-3 show the number of non-monetary and monetary items handled under different categories of mail at five-yearly intervals during the period up to 1912. Postcards and letters accounted for a very high proportion of all mail items, but postcards, originally introduced in the 1870s as a cheaper alternative to letters, had overtaken letters by the latter half of the 1880s. By the end of the Meiji period the Post Office was handling almost three times as many postcards as letters, and postcards constituted over 55% of all mail. We have little way of knowing what proportion of the letters or postcards sent related to economic activity. Postcards appear to have been used extensively not only by lower income groups, but by those in higher income groups who felt that their communication did not require privacy.³⁸ Even the privacy condition was made redundant when ‘sealed’ postcards were introduced, so while there seems to be a consensus that postcards were largely for personal use, there is evidence from business archives, for example, that they could also be used for business purposes. Given the low income level in Japan at this time, however, the assumption that postcards were more likely to be for personal use and the more expensive letters for business or official use, would seem to be not unreasonable.³⁹ It appears, however, that the category of letters included a large number of items that were technically not letters at all, including contracts, accounts, financial estimates, receipts and other business-related documents,⁴⁰ which was probably why a specific category of business-related mail was later instituted. However, analysis based on archival sources suggests that the number of letters received and sent by businesses and other economic organizations, as well as individuals in the course of economic activity, was very considerable indeed. Fujii has noted that while telegrams were communicating important business matters between branch and main offices of Yūbin Kisen Mitsubishi Kaisha (later NYK), for

³⁸ Ishii, *Jōhō-Tsūshin no Shakai Shi*, pp.70-3.

³⁹ This assertion was made by Basil Hall Chamberlain in his famous *Things Japanese*, written in 1902. I am grateful to Leslie Hannah for drawing this to my attention.

⁴⁰ Teishin Rokujūnen Shi Kankōkai, *Teishin Rokujūnen Shi*, p.81,

example, letters also proliferated.⁴¹ A breakdown of letters and postcards by region, however, shows clearly that usage was highly concentrated in the main business and economic centres. Figure 3 gives the per capita number of regular mail items handled by each prefecture in 1904.⁴² The highest per capita usage of mail was in Tokyo, followed by Ōsaka, and then other leading commercial areas such as Kyoto, Nagasaki, Hyogo and Kanagawa. Hokkaidō, an area of relatively recent settlement also had relatively high usage. Lowest usage was in Okinawa and some of the Kyūshū prefectures. Usage was far from uniform across the country, and was highly concentrated in the growing urban and trading centres.

The importance of newspapers is also apparent from these figures. Cheap rates for sending newspapers by mail were introduced right at the start, and the number carried by mail rose from over 4 million by 1877 to over 200 million annually by the end of the Meiji period. A major objective in allowing the cheap carriage of papers and magazine was to increase educational and knowledge levels, and to strengthen awareness of nation across the country. Again the explicit economic significance of these items is very hard to pin down, although we know that newspapers in general were of importance in the spread of commercial information, and, increasingly, in the diffusion of advertisements for a wide range of products, hence contributing to the development of an integrated national marketing network.⁴³

These figures also show that considerable use was made of the special provisions introduced by the government and described above to facilitate the transmission of items and information related to the economy. Commercial samples and models were carried in the same category as books until the latter 1880s, and we have no way of knowing the breakdown for earlier years. Later data would seem to indicate that at this time it was books that constituted by far the largest proportion of mail items in this category. Nevertheless, if we look at the later figures it is apparent that the transmission of commercial samples and models was taking place on a considerable scale, especially after the turn of the century. There is no national level data that allows us to identify the relative significance of commercial samples and

⁴¹ Fujii, *Terekomu no Keizaishi*, p.209. Just for 1879, 681 letters written by the Hakodate branch to the head office of Mitsui remain in existence.

⁴² Teishinshō Tsūshinkyoku, *Teishin Tōkei Yōran 1904*, pp.11-14.

⁴³ It was after the end of the Meiji period that advertising really took off in Japanese newspapers for mass consumption, but advertising was well established well before the First World War. The later expansion paralleled the rise of services such as mail order and cash on delivery, both of which were dependent on the postal service.

models in this category, but it may be assumed that models constituted a relatively small proportion of the total. It is certainly the transport of samples (and the abuse of the system) that primarily concerned postal officials. As with letters and postcards, the main users of this particular facility were located in the growing industrial and commercial centres, such as Ōsaka, Kōbe and Nagoya.⁴⁴ The reduced rate carriage of business documents was introduced only after the turn of the century, but over 12 million such items were handled in 1912. In the same year nearly 3 million items were handled under the agricultural use category, an increase of more than 300% over ten years. Significantly, there is a major jump in the number of all categories between 1897 and 1902.

If we turn to the figures for the number of letters containing money, and for the transmission of money through the use of postal orders, it appears that the government's attempts to provide a substitute for the sending of money in letters were successful. While the number of money-letters increased up to 1882, it declined rapidly thereafter, and they had virtually ceased to exist by the 1890s. By contrast, the value and number of postal orders showed a sustained increase throughout the period, accelerating particularly rapidly from the late 1870s. In 1912 nearly ¥268 million worth of postal orders were issued, and the value of cashed orders was almost as high, suggesting a considerable transfer of funds across the country. A full analysis of this flow lies beyond the scope of this paper,⁴⁵ but a number of points are worth mentioning. The high average value per order when the system was initially introduced indicates that most users were businesses or wealthy individuals. The average value per order decreased up until the turn of the century, suggesting that the commercial actors who had used the system in its early days may have found alternative means of sending funds. Private individuals were increasingly catered for, particularly through the introduction of so-called 'small money orders', which enabled very small amounts of money to be sent, and the take up of this service was considerable. The average value per order rose after 1900, a time of generally rising income levels.⁴⁶ Like mail usage, the usage of money orders was concentrated in certain regions, and some prefectures experienced a net outflow of funds through the

⁴⁴ Regional breakdown of use by prefecture and city shows this to have been consistently the case at least after the 1880s (Eg. Nagoya Yūbinkyoku, *Daiyokkai Nenpō*, pp.108-63, 261-305; Ōsaka Yūseiikyoku, *Shiryō Ōsaka Yūsei no Hyakunen*, p.710).

⁴⁵ Such an analysis is currently in progress.

⁴⁶ Teishin Daijin Kanbō, *Teishin Shiyō*, pp.111-14.

system, while others enjoyed a net inflow. Figure 4 shows the ratio of the value of postal orders cashed to that of orders purchased for each prefecture in 1895.⁴⁷ Tokyo cashed over three times the value of the orders that were purchased in the city. It was followed by the other big urban centres of Kyoto and Osaka, and then the rural areas of Toyama and Tokushima. The greatest net outflow of postal order money was from Yamaguchi, Okinawa, Akita, Gunma and Yamanashi prefectures.

The postal money order system was during the Meiji period extended to international transactions, and the figures for usage of this system are also instructive. Up to 1891 the system appears to have been used mainly to transfer funds out of Japan, but thereafter the flow was reversed. By 1898 something over ¥90,000 left Japan, while international orders to a value of over ¥557,000 were cashed in the country. North America (the US) accounted for around 60% of this inflow, which was attributed to the increasing number of Japanese residents there who were remitting often sizeable sums of money (on average ¥55) to their home villages.⁴⁸

Supply and Demand Considerations

Estimating the significance of these numbers is problematic. Clearly there was considerable growth in postal usage, including categories of obvious economic importance, but this does not in itself tell us anything about the reasons for that growth. Nor does it tell us how far the provision of the new government-run service was catering to an existing demand. As noted above, assessment of existing and future demand, and the decisions on price associated with any such assessment, was an issue for all 19th century postal authorities. Where the system was starting effectively from scratch, as in early Meiji Japan, such decisions were likely to be particularly problematic, and were recognized to be risky. A writer in one of the leading daily newspapers in 1884, highlighting the fact that the opening of transport and communication facilities could lead to the establishment of a virtuous circle, in which demand and supply fed off each other,⁴⁹ was also implicitly acknowledging the potential existence of a vicious circle, in which this failed to happen. Much of the evidence that we have suggests that the initial founding of the Japanese system was not the consequence of a significant demand stimulus, except from the government

⁴⁷ Teishin Daijin Kanbō, *Teishin Daijū Nenpō*, pp.279-93.

⁴⁸ Teishin Daijin Kanbō, *Teishin Shiyō*, pp.119-24.

⁴⁹ *Tōkyō Nichi Nichi Shinbun* 1 april 1884, reproduced in *Yūsei Hyakunen Shi Shiryō* vol.21, pp.40-42.

itself. Apart from the individual vision of Maejima Hisoka, the architect of the service, factors behind the initiation of the service included the high cost to the government of using traditional courier systems to transport its many communications between Tokyo and the Kansai area.⁵⁰ It is also apparent that even after the service was founded many merchants continued to rely on private delivery services by couriers until such services were made illegal with the introduction of the government monopoly in the spring of 1873. The first postal route opened between Tokyo and Osaka in 1871 initially handled fewer than half the number of letters anticipated.⁵¹ When the Kōbe Post Office was opened in the summer of 1871, it employed nine people, but they initially collected fewer than 150 items per day, and delivered under a hundred. Even in this busy open port residents averaged only one letter per five hundred persons in this first year. It took several years for the volume of mail to rise to the level where not only it fully employed the existing staff, but necessitated the construction of a new postal building to cope with the pressure of business.⁵² Maejima himself reported that he promoted the founding of one of the early newspapers, the *Yūbin Hōchi Shinbun (Postal Information Newspaper)* specifically to encourage people to make more use of the service, and in general official reports were inclined to complain about the low take up, invariably explained by reference to the fact that the service was still in its infancy and people had yet to be fully educated in its use and value.⁵³ As late as 1905 local postmasters in the Tōtōmi region southwest of Tokyo were meeting to discuss the establishment of a discussion group, whose specific function would be to spread a better knowledge of the postal communications business to the public.⁵⁴ In a breathtaking expression of official arrogance and self-satisfaction, a government-sponsored publication of the interwar years looked back on the initiation of the post in the following words:

All looked well for the project, except the people who were to receive the benefit. Due to the inertia of the servile mental attitude inculcated during the feudal ages, even a few years after the new postal system was inaugurated, the general public, instead of realizing the advantage of the new system, suspected the faster mail

⁵⁰ The cost to the government of using couriers to carry mail between Tokyo and Kyoto was estimated at 1500 *ryō* a month (Nihon Rekishi Chiri Gakkai, *Nihon Kōtsū Shiron*, p.650).

⁵¹ Teishinshō (ed.), *Teishin Jigyō Shi* vol.2, pp.163-4.

⁵² Yokota, *Hyakunen Shi: Kōbe Yūbin no Dōjun*, pp.13-19.

⁵³ Sugiyama gives a quotation from the 1874 report of the Ekiteiryō (the department responsible for the post) to this effect (‘Jōhō Nettowaaku no Keisei to Chihō Keizai’, p.236).

⁵⁴ *Tōtōmi no Kuni Santōkyokuchō Kyōgikai*, report of meeting, 1905, pp.13-15.

service because of a low uniform rate of charges, and entertained a pessimistic outlook towards the life of the new innovation.

Surprised at the unexpected attitude of the general patronizers, the government officials, who were far more advanced than the public, launched a strenuous campaign of education for the postal service.⁵⁵

Price is likely to have been an important factor in the initially low take-up rate. There were many complaints that the price established for the carriage of letters was far too high for most people to contemplate, particularly in the first two years before the implementation of a standard rate regardless of distance. Some reports suggested that the early Meiji postal service was considerably cheaper than the preceding courier service, but even so it was far more expensive than it was to become later. When the postal service was extended north from Tokyo the initial cost of sending a letter from the northern city of Sendai to the capital (a distance of around 300 kilometres) was 8 *sen*, at the time estimated to be equivalent to the cost of purchasing nearly 5.5 litres of white rice in the city.⁵⁶ The real cost of sending mail decreased considerably with the introduction of the uniform rate, when the minimum letter rate was set at 2 *sen* for out of town mail, and 1 *sen* within town borders. Even though this distinction was abolished in 1882, with all letters being charged at 2 *sen*, later increased to 3 *sen* in 1899,⁵⁷ inflation and rising incomes meant that in real terms postal costs for the user became progressively lower. The introduction of postcards and reduced rates made it cheaper still. The issue of postal rates remained a significant matter for the business community, as well as for the government, which had to strike a balance between its need to balance the books or acquire revenue with its other stated objectives of benefiting the society and economy who were the consumers. After significant initial investment, the postal service moved from deficit to surplus after the mid-1880s (Figure 5).⁵⁸ The postal savings system, started in 1875, contributed to its becoming a critical element in fiscal policy, but tensions persisted. It was with a view to increasing postal revenue in the wake of Japan's accession to the gold standard, which the government argued had halved the real cost of sending mail, that charges were increased in 1899. The proposal, though in part eventually passed, met with

⁵⁵ Osaka Mainichi, *Development of Postal Enterprise in Japan* (bilingual publication, Osaka: Osaka Mainichi, 1928), English section, p.11.

⁵⁶ Teishinshō (ed.), *Teishin Jigyō Shi* vol.2, pp.218-19.

⁵⁷ Teishinshō (ed.), *Teishin Jigyō Shi* vol.2, pp.221-2.

⁵⁸ Identify source of figures.

vehement opposition in the Upper House of the Diet, where it was claimed that the price rise would impede the further development of the postal service, and hence the development of business more broadly.⁵⁹ Another example of this tension is to be found in the lower costs for within-city mail that had initially been introduced to encourage general use, but were abolished in 1882 on the grounds that the cost of handling mails in large urban areas was often higher than in smaller towns and cities. In 1909 this distinction was reinstated on the grounds that in an increasingly complex economy there needed to be a more complex charging system to meet the needs of business. In general, though, the tensions between government budget imperatives and business interests were more likely to be resolved through a recognition of collective interests, as in the case of the introduction of special rates for business documents at the turn of the century. Such documents had initially been denied the lower rate charged for printed matter, and treated in the same way as personal communications. Since many businesses posted thousands of such items every year, the cost implications were considerable. The new rate, which applied only where at least 100 items were being sent, was seen as important in helping the business and commercial worlds through a significant reduction in transactions costs.⁶⁰

It was not just basic mail items where demand for the service seemed initially to be limited. There were complaints that people were also slow to take advantage of the new postal savings system. Here, too, it seems that the authorities had failed to take sufficient account of people's lack of familiarity with what was being offered, the low average income level, and the level and methods of interest payment. When post office savings opened in Niigata in the late 1870s, for example, the annual rate of interest was 3%, compared with an average of 10% in the private sector, no interest was payable if total deposits were under ¥1 (a considerable amount for a low income individual) and the procedures were said to be 'very troublesome', including the consent of the household head for all savings transactions by family members.⁶¹ Here, as in the case of the mail service, the authorities made early mistakes in assessing demand and setting financial conditions, but they were also prepared to make adjustments in a process of trial and error that eventually allowed the service and the economy to grow together on the basis of realistic pricing and conditions.

⁵⁹ Teishinshō (ed.), *Teishin Jigyō Shi* vol.2, pp.216-17.

⁶⁰ Teishinshō (ed.), *Teishin Jigyō Shi* vol.2, pp.267-72.

⁶¹ Ishiguro, *Niigata Yūbinkyoku Shi*, pp.133, 166-70.

The two major exceptions to the sluggish demand of early days seem to have been the postal money order system and the parcel post. The initial take up of postal orders exceeded the government's estimate. The existence of demand for such a service was at the time disputed by financial officials, who argued that such a system was premature, that the government risked considerable financial loss, and that fund transfer mechanisms were best entrusted to private operators such as banks. Postal officials there had a major battle to introduce the system. One major reason why the Postal Bureau wished to take this initiative was that it found itself handling a large volume of tax payments, and wanted to find a safer system of moving them, but that would not in itself have constituted sufficient demand, and the omens did not look good.⁶² However, as shown in Table 2, the value of postal money orders increased very rapidly indeed, and by the mid-1870s had already reached millions of yen. In 1875, the first year of the service, over 115,000 postal money orders were issued, to a total value of over ¥2.1 million yen, averaging over ¥18 per order.⁶³ The strain on the system was considerable, posing major problems of financial reconciliation. With the Finance Ministry unable or unwilling to offer support, the Communications Bureau was compelled to turn to private lenders for the capital it needed to cope with the unanticipated demand.⁶⁴

These circumstances seem to confirm that the system met the needs of previously unsatisfied demand. While the existing courier system had been mobilised by the postal authorities to carry mail containing money, this was, as we have seen, considered an undesirable means of transferring funds, open to theft and loss. Moreover, in the absence of a widely accessible banking system, postal money orders offered a reliable and near universal means of moving money from one part of the country to another. Secondly, as already noted, the high average value per postal order suggests that at this period at least they were purchased mainly for business and commercial purposes rather than for personal use. Given that in the 1870s the daily wage for unskilled workers could be as low as 3 *sen*,⁶⁵ ¥18 was a considerable amount of money. The government initially placed no upper limit on amount that could be sent between the same two people, but soon found that some offices were dealing with so many transactions that the system could not cope. Ceilings were then

⁶² Teishinshō (ed.), *Teishin Jigyō Shi* vol.5, pp.5-6, 144-8,

⁶³ Teishin Daijin Kanbō, *Teishin Shiyō*, pp.111-13.

⁶⁴ Teishin Daijin Kanbō, *Teishin Shiyō*, p.109.

⁶⁵ 100 *sen* = ¥1.

set according to the locality, from which the major cities (Tokyo, Kyoto, Osaka, Yokohama and Kobe) were first exempted and then allowed special dispensation.⁶⁶ This strongly suggests that the new service was catering to an existing demand, and that this demand was concentrated in the expanding urban commercial and industrial areas. One account goes as far as to identify the early users of the money order service as the major holders of commercial capital in this period.⁶⁷ Even here, however, there was a low average income constraint, and the government was forced to reduce the minimum postal order value to cope with minute sums and reduce charges to enable the less well off to take advantage of the service.⁶⁸

The other part of the service for which there is evidence of immediate demand is the parcel post, founded in 1892. The figures in Table 3 indicate a rapid take up of this provision. The start of the service was well supported in the press, and the *Tokyo Nichi Nichi Shinbun* emphasized the need for the transport of light, small articles, and its significance for the development of petty commerce and manufacturing.⁶⁹ The same paper noted four years later how successful the parcel post had been in economic terms, saying that its use for samples helped to avoid fraud and the sale of goods of inadequate quality, and that it helped local producers by promoting trust and honesty, as well as connecting them to bigger national and international markets.⁷⁰

With the possible exception of the postal money order system and the parcel post, therefore, the postal authorities had to work hard to create the demand for the services that they offered. Where services competed with an existing private system, consumers had to be persuaded to move to the new services. Where the service offered was new, even where there was no competitor, again it was felt that users had to be 'educated' in its use. The rising usage of all categories may be interpreted in the first instance as an indicator that sufficient adjustments had been made in cost and service for the demand for the service to become self-sustaining. It was in the second instance a reflection of the growth of economic activity and market integration, and it is this context that will be the subject of the final part of the paper.

⁶⁶ Teishinshō (ed.), *Teishin Jigyō Shi* vol.5, pp.146-8.

⁶⁷ Yūseishō Chokin, *Kawase Chokin Jigyō no Hyakunen Shi*, p.12.

⁶⁸ Teishinshō (ed.), *Teishin Jigyō Shi* vol.5, p.158-61.

⁶⁹ *Tokyo Nichi Nichi* 14-15 May 1892, reproduced in *Yūsei Hyakunen Shi Shiryō*, vol.21, pp.99-104.

⁷⁰ *Tokyo Nichi Nichi* 1 Oct.1896, reproduced in *Yūsei Hyakunen Shi Shiryō*, vol.21, pp.121-2.

Conclusion

Analysis of postal policy and postal usage in Meiji Japan indicates a number of points about the economic context of postal development and certain aspects of the relationship between the growth of postal communication and the development of the economy. While the demand stimulus for many aspects of the service was very limited, it is clear that in some cases, even where the system was not the obvious consequence of demand pressures, it did meet an existing unsatisfied demand. The postal money order system was one example of this. The parcel post system, introduced much later, was another.

The economic significance of the post to market integration and regional economic patterns has already been discussed at some length by Japanese scholars, but is worth re-emphasizing here. The concentration of postal use in urban, commercial areas was indicated above, and if we look at the average number of letters sent by Japanese citizens in 1883-4, we find that while residents of the Tokyo urban area averaged over 13 letters per year, followed by those of Osaka with over 8 per year, the residents of Okinawa averaged barely a letter for every four persons.⁷¹ The disparity, if anything, grew. As Figure 3 indicated, by 1904 Tokyo residents, at over 90 items a year, averaged over nine times as much mail as residents in many rural areas, and fifty times as much as Okinawans (although Okinawa was a clear outlier).⁷² This concentration of use existed not just at the level of the big cities, but in outlying localities as well. By the early 1880s, for example, residents of Akita City, in the far north of Japan's main island, were sending on average up to eight times as many letters as those living in the remainder of this largely rural prefecture.⁷³ High postal usage was not only concentrated in major centres, but was also associated with a net outflow of mail. By 1895 only 6 prefectures (out of a total of 47) were sending more mail items than were delivered in the area, but these 6 prefectures were also the same main regions of significant urbanisation and commercial importance which made the most use of the system. In the case of Tokyo the disparity was particularly great, with the number of letters sent almost twice the number received.⁷⁴ Sugiyama reports the

⁷¹ *Yūsei Hyakunen Shi Shiryō* vol.30, pp.266-8.

⁷² Teishinshō Tsūshinkyoku, *Tsūshin Tōkei Yōran 1904*, pp.11-14.

⁷³ Akita Ekitei Shutchōkyoku, *Akita Ekitei Shutchōkyoku Daiichiji Nenpō*, pp.3-4.

⁷⁴ Teishin Daijin Kanbō, *Teishinshō Daijū Nenpō*, pp.258-261.

same phenomenon for the local commercial centre of Takasaki in Gunma Prefecture, in relation to the use of postal money orders.⁷⁵

Commentators such as those in the *Tokyo Nichi Nichi Shinbun*, however, saw the post as having the capacity to ameliorate rather than exacerbate such regional divisions. In supporting small scale local commerce and manufacturing, they argued, the parcel post system of 1892 would help prevent the national economy from becoming skewed by enabling exchange of regional products for the manufactures of the cities. It could also open the way to direct sales of regional products, and offer the localities a demand stimulus.⁷⁶ This perspective is particularly important in the context of late nineteenth century Japan as a low income, late industrialising economy. The emphasis on boosting regional economies and small producers and businesses was significant precisely because it was activities of this kind that continued to constitute the bulk of the country's economic activity. Failure to integrate the majority of the population into the national project for 'modernisation' and industrialisation could have serious economic as well as political consequences.

The 'relative backwardness' of Japan was also a significant factor in other aspects of postal development. The relative absence of financial institutions was the key to the immediate success of the postal money order system. Capital shortage in the form of constrained government funding was demonstrated by the reservations over the introduction of money orders, but over the long term was ameliorated by the highly successful postal savings programme. The postal system made a significant contribution to bridging the technological gap, through the facilitation of the exchange of samples and models, and through the exchange of other forms of information. In particular, the increasing dependence on the dissemination of codified knowledge was supported additionally through the cheap carriage of materials for the promotion of industry, legal and business documents, and a range of educational materials. The constraints of a developing economy are also evident in the operation of the system: the need to adapt to low income levels through, for example, the introduction of the postcard, the facilitation of money orders for minute sums, and small savings deposits. The ongoing dependence on the agricultural sector is manifested in the special provisions for agricultural items.

⁷⁵ 'Jōhō Nettowaaku no Keisei to Chihō Keizai', p.243.

⁷⁶ *Tokyo Nichi Nichi Shinbun* 15 May 1892, reproduced in *Yūsei Hyakunen Shi Shiryō* vol.21, pp.101-4. Also 1 Oct.1896, reproduced in *ibid.*, pp.121-2.

Japan's developing status is also evident in any international comparison of mail usage before the First World War. Average mail use rose in conjunction with national income in the Meiji period (Figure 6)⁷⁷, and the number of items mailed per head of the Japanese population rose dramatically in the period up to 1938 (Figure 7).⁷⁸ The increase is impressive, but it is clear that the real acceleration comes after the First World War, and not in the Meiji period. International comparative statistics for this period suggest that postal usage in Japan was still relatively low compared with most of the industrializing countries of Western Europe (Figures 8, 9).⁷⁹ This tends to confirm the argument made in this paper that in late nineteenth-early twentieth century Japan not only was the postal system an accurate indicator of major features of the economy, but it also had an influence on that economy. For contemporaries this significance was axiomatic. As officials asserted in the 1920s, 'generally speaking, irrespective of time and space, at any place and in any country in the world, one can judge the standard of culture of one given community by studying the degree of development of its particular postal system.'⁸⁰

⁷⁷ Postal figures based on Table 1. Real national income figures from *Long Term Economic Statistics of Japan*.

⁷⁸ Teishinshō, *Teishin Jigyō Shi* vol.2, pp.604-6.

⁷⁹ Letters here include postcards. Figures from Teishinshō Tsūshinkyoku, *Teishin Tōkei Yōran*, relevant years.

⁸⁰ Osaka Mainichi, *Development of Postal Enterprise in Japan*, English section, p.9.

- A.Abe, *Kiban'in no Kenkyū: Kindai Yūbin no Keisei Katei* (Tokyo: Meicho Shuppan, 1994)
- Akita Ekitei Shutchōkyoku, *Akita Ekitei Shutchōkyoku Daiichiji Nenpō* (March 1885)
- D.Bowles & R.Maddock, 'The Supply of Direct Exchange Lines in Developing Countries', in S.Macdonald & G.Madden (eds.), *Telecommunications and Socio-Economic Development* (Amsterdam: Elsevier, 1998)
- S.Braman, 'Telecommunications Infrastructure and Invention, Innovation and Diffusion Processes', in S.Macdonald & G.Madden (eds.), *Telecommunications and Socio-Economic Development* (Amsterdam: Elsevier, 1998)
- B.H.Chamberlain, *Things Japanese* (??)
- Y-W Chang, *Postal Communication in China and its Modernization, 1869-1896* (Cambridge MA: East Asian Research Center, Harvard University Press, 1970)
- J.H.Clapham, *An Economic History of Britain: the Early Railway Age, 1820-1850* (2nd ed., Cambridge: Cambridge University Press, 1964)
- N.F.R.Crafts & A.Venables, 'Globalization in History: a Geographical Perspective', *CEPR Discussion Paper* 3070, 2001
- N.F.R.Crafts & A.Mulatu, 'How Did the Location of Industry Respond to Falling Transport Costs in Britain Before World War I?', *LSE Department of Economic History Working Papers in Large Scale Technological Change* 05/04, March 2004
- M.A.Crew & P.R.Kleindorfer, *The Economics of Postal Service* (Boston MA: Kluwer Academic Publishers, 1992)
- M.Daunton, *The Post Office* (??)
- S.Ericson, *The Sound of the Whistle: Railroads and the State in Meiji Japan* (Cambridge MA: Council on East Asian Studies, Harvard University Press, 1996)
- R.W.Fogel, *Railroads and American Economic Growth: Essays in Econometric History* (Baltimore & London: The Johns Hopkins Press, 1964)
- N.Fujii, *Terekomu no Keizai Shi* (Tokyo: Keisō Shobō, 1998)
- E.Glaeser & J.Kohlhase, 'Cities, Regions, and the Decline of Transport Costs', *NBER Working Paper* 9886, 2003
- C.K.Harley, 'Oligopoly Agreement and the Timing of American Railroad Construction', *Journal of Economic History* 42, 2, 1982
- Y.Hayami, O.Saito & R.Toby (eds.), *Emergence of Economic Society in Japan 1600-1859* (Oxford: Oxford University Press, 2004)
- D.Headrick, *When Information Came of Age* (Oxford: Oxford University Press, 2000)
- M.Ishiguro, *Niigata Yūbinkyoku Shi* (Niigata: Niigata Yūbinkyoku Shi Hensankai, 1986)
- K.Ishii, *Jōhō-Tsūshin no Keizai Shi* (Tokyo: Yūhikaku, 1994)
- R.John, *Spreading the News: the American Postal System from Franklin to Morse* (Cambridge MA: Harvard University Press, 1995)
- M.Jussawalla & D.M.Lamberton (eds.), *Communication Economics and Development* (Honolulu & New York: Pergamon & East-West Center, 1982)
- C.Mosk, *Japanese Industrial History: Technology, Urbanization and Economic Growth* (Armonk NY: M.E.Sharpe, 2001)
- Nagoya Yūbinkyoku, *Nagoya Yūbinkyoku Dai Yokkai Nenpō* (Nagoya: Nagoya Yūbinkyoku, 1905)
- N.Nakamura, 'Kindaiteki Un'yū-Tsūshin Mō no Seibi: Kenkyū Dōkō to Kōgo no Tenbō', in K.Ishii, A.Hara & H.Takeda (eds.), *Nihon Keizai Shi 2, Sangyō Kakumei Ki* (Tokyo: Tokyo University Press, 2000)

- T.Nakamura, *Economic Growth in Prewar Japan* (New Haven CT: Yale University Press, 1983)
- Nihon Rekishi Chiri Gakkai (ed.), *Nihon Kōtsū Shiron* (Tokyo: Nihon Gakujutsu Fukyūkai, 1926)
- Ōsaka Yūseiokyoku, *Shiryō Ōsaka Yūsei no Hyakunen* (Ōsaka: Yūsei Kōsaikai Ōsaka Chihō Honbu, 1971)
- S.Sugiyama, 'Meiji Zenki ni okeru Yūbin Nettowaaku', *Mita Gakkai Zasshi* 79, 3, 1986
- S.Sugiyama, 'Jōhō Kakumei', in S.Nishikawa & Y.Yamamoto (eds.), *Sangyōka no Jidai 2*, vol.5 of *Nihon Keizai Shi* (Tokyo: Iwanami Shoten, 1990)
- S.Sugiyama, 'Jōhō Nettowaaku no Keisei to Chihō Keizai', *Nenpō Kindai Nihon Kenkyū* 14, *Meiji Ishin no Kakushin to Renzoku* (Yamakawa Shuppansha, 1992)
- R.Szostak, *The Role of Transportation in the Industrial Revolution: a Comparison of Britain and France* (Montreal: McGill-Queen's University Press, 1991)
- Teishin Daijin Kanbō, *Teishinshō Daijū Nenpō* (Tokyo: Teishin Daijin Kanbō, March 1897)
- Teishin Daijin Kanbō (Teishinshō), *Teishin Shiyō* (Tokyo: Teishin Daijin Kanbō, 1898)
- Teishin Rokujūnen Shi Kankōkai (Sawamoto Kenzō), *Teishin Rokujūnen Shi* (Tokyo: Teishin Rokujūnen Shi Kankōkai, 1931)
- Teishinshō (ed.), *Tsūshin Jigyō Gojūnen Shi* (Tokyo: Teishin Kyōkai, 1921)
- Teishinshō (ed.), *Teishin Jigyō Shi*, vols.2, 5 (Tokyo: Teishin Kyōkai, 1940)
- Teishinshō Tsūshinkyoku, *Tsūshin Tōkei Yōran 1901*(Tokyo: Teishinshō, various years)
- T.Tsuchiya, 'Yūbin ga Hyakunen ni Hatashita Yakuwari', *Yūsei* April 1971
- C.N.Vaporis, *Breaking Barriers: Travel and the State in Early Modern Japan* (Cambridge MA: Council on East Asian Studies, Harvard University Press, 1994)
- D.E.Westney, *Imitation and Innovation: the Transfer of Western Organizational Patterns to Meiji Japan* (Cambridge MA: Harvard University Press, 1987)
- K.Wigen, *The Making of a Japanese Periphery, 1750-1920* (Berkeley CA: University of California Press, 1995)
- W.D.Wray, *Mitsubishi and the NYK, 1870-1914* (Cambridge MA: Council on East Asian Studies, Harvard University Press, 1984)
- I.Yamaura, 'Yūbin Jigyō ni kansuru Sangyō Renkan Bunseki', *Yūsei Kenkyūjo Geppō* 121, Oct.1998
- J.Yates, *Control through Communication: the Rise of System in American Management* (Baltimore & London: the Johns Hopkins University Press, 1989)
- T.Yokota, *Hyakunen Shi: Kōbe Yūbin no Dōjun* (Kōbe: Kōbe Yūbin Shiki no Kai, 1974)
- Yūseishō Chokinkyoku, *Kawase Chokin Jigyō Hyakunen Shi* (Tokyo: Yūbin Chokin Shinkōkai, 1978)

Figure 1: Post, Telegraph and Telephone Usage, 1871-1901 (no. of items)

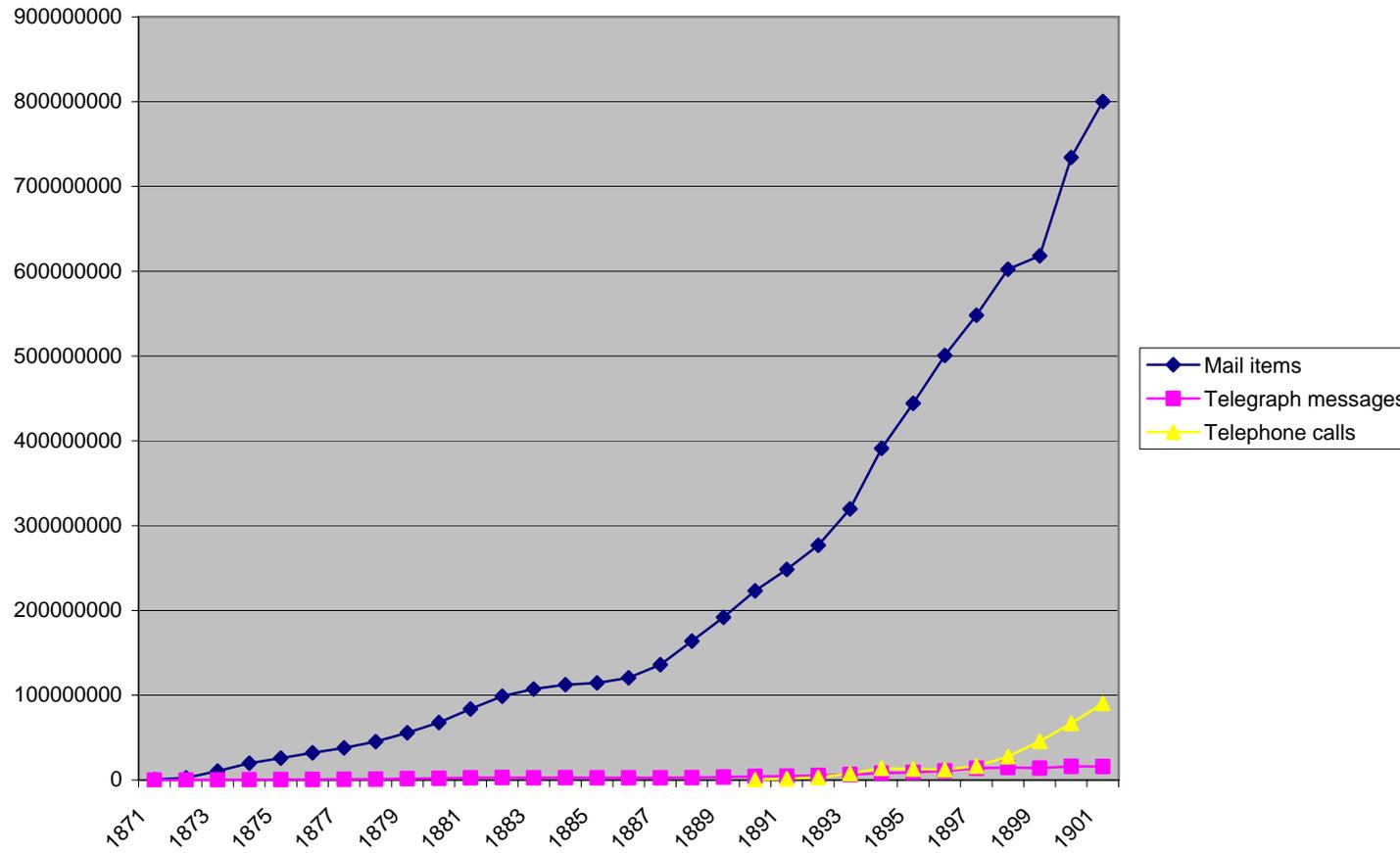


Figure 2: Post, Telegraph and Telephone Usage 1871-1901 (no. of items, log scale)

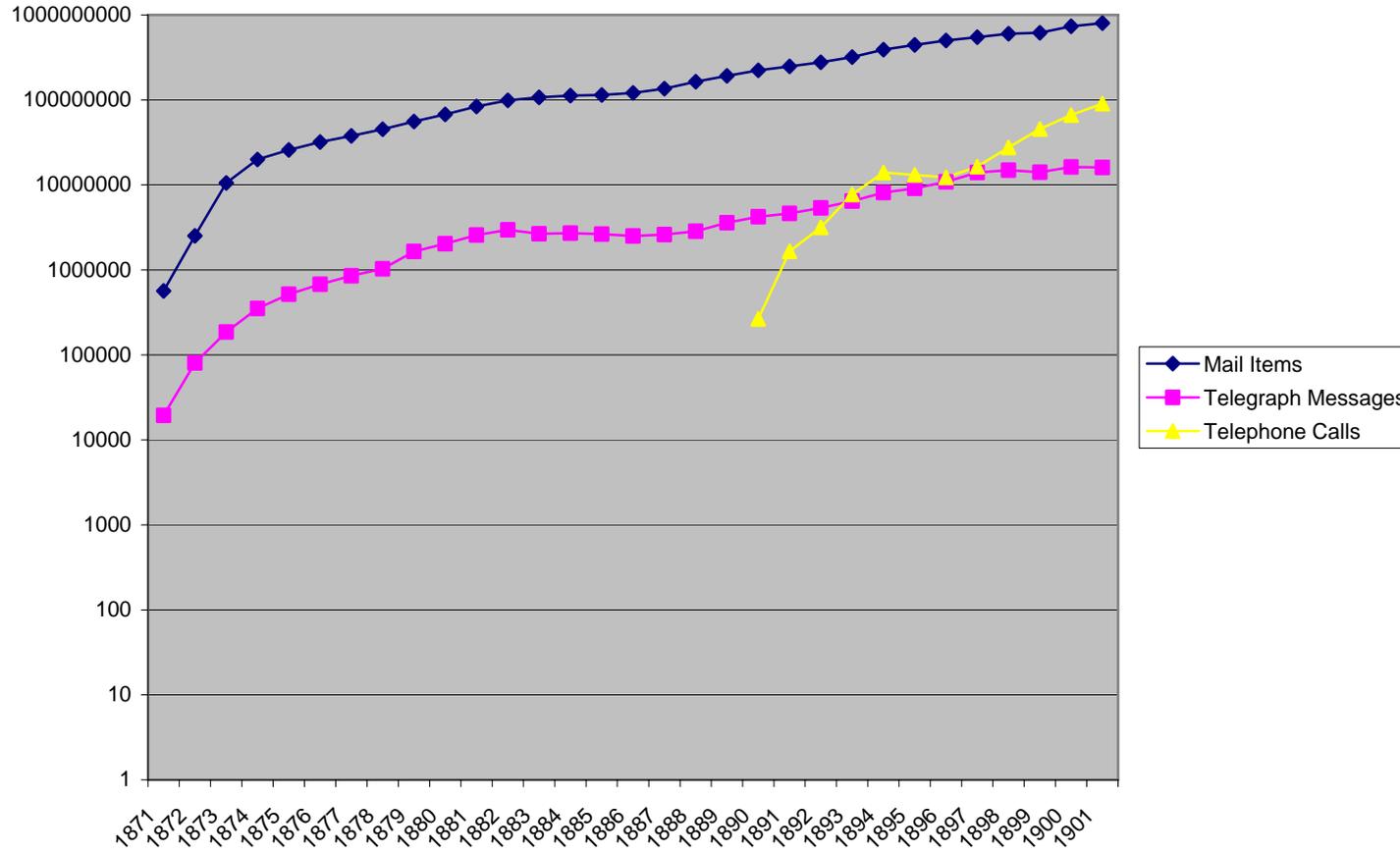


Table 1: Number of Mail Items by Category, 1872-1912 (number of items in each category)

	Parcels	Letters	Postcards	Newspapers	Samples and Models	Books	Business Documents	Seeds & Agric. Products
1872		2441019		40649	4438			
1877			32525186	4257461	382369			
1882		46820078	32034581	15898167	1381239			
1887		53913117	55627595	18247305	59266	1752727		
1892	40755	75374007	133260175	50829700	267030	5087360		58034
1897	4108488	149095857	287062803	88264125	804032	7334558		243593
1902	10298561	208563145	483986374	148770343	2044932	9869689	3311202	837988
1907	17676745	305483974	776903630	166814565	3414544	22934320	10880128	1963148
1912	24276991	338777285	913465012	204606628	5552876	50925847	20558893	2961010

Source: Teishinshō (ed.), *Tsūshin Jigyō Gojūnen Shi*, pp.61-2, 64-6

Table 2: Number of Money Enclosures and Money Orders, 1872-1912

Date	Postal Money Orders Purchased (value in yen)	Letters Containing Money
1872		4811
1877	2692679	123485
1882	9188262	144774
1887	10929500	22088
1892	23122263	706
1897	52949426	275*
1902	94372958	
1907	194358434	
1912	267998820	

*1896

Source: Teishin Daijin Kanbō, *Teishin Shiyō*, pp.405-6; Teishinshō (ed.), *Tsūshin Jigyō Gojūnen Shi*, pp.86-8

Table 3: Parcel Post Usage, 1892-1912

	No. of Items
1872	
1877	
1882	
1887	
1892	40755
1897	4108488
1902	10298561
1907	17676745
1912	24276991

Source: as for Table 2

Figure 4: Postal Orders by Prefecture, 1895 (Value of Orders Cashed/Orders Purchased)

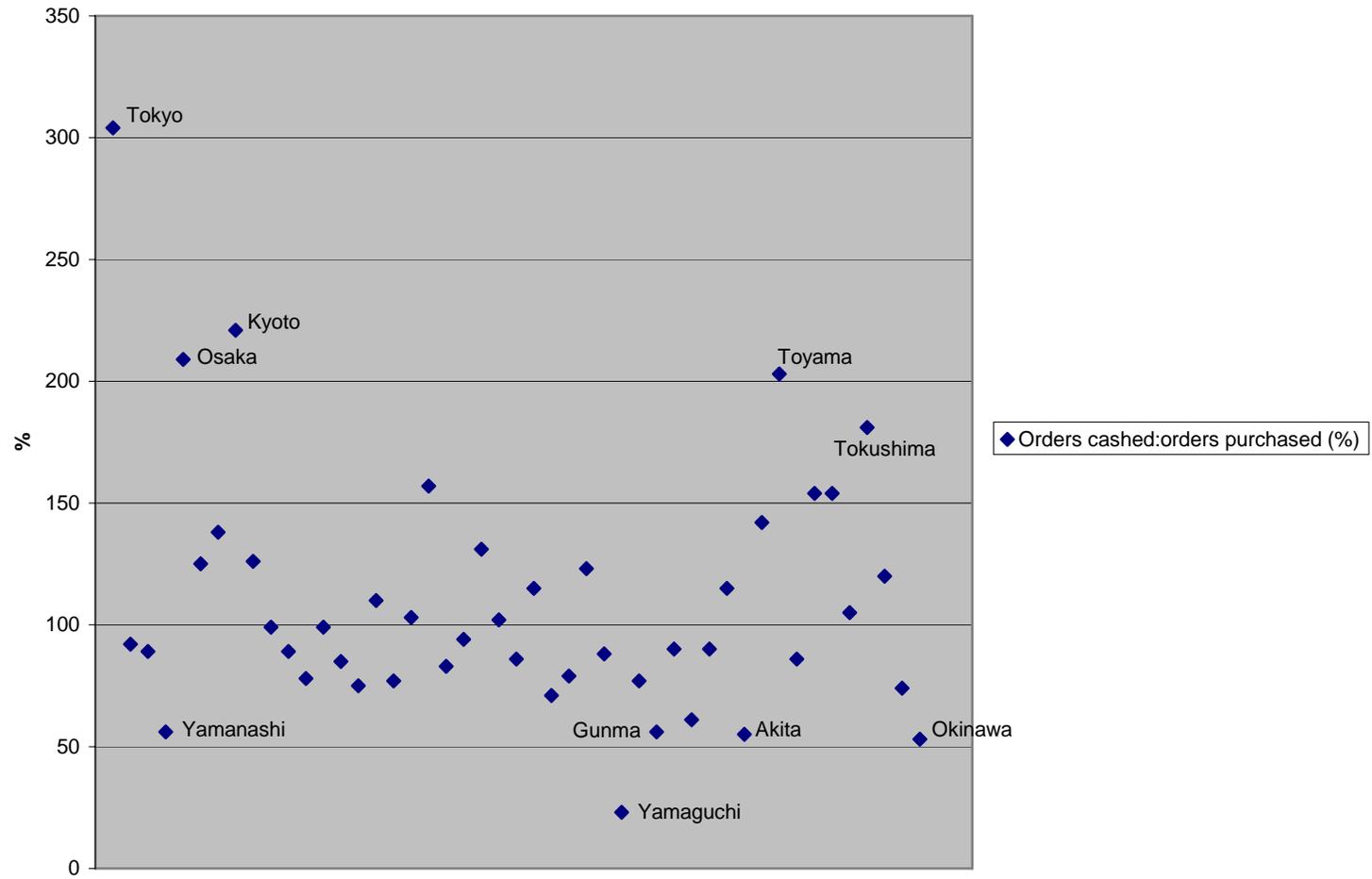


Figure 5: Postal System Income and Expenditure 1871-1896

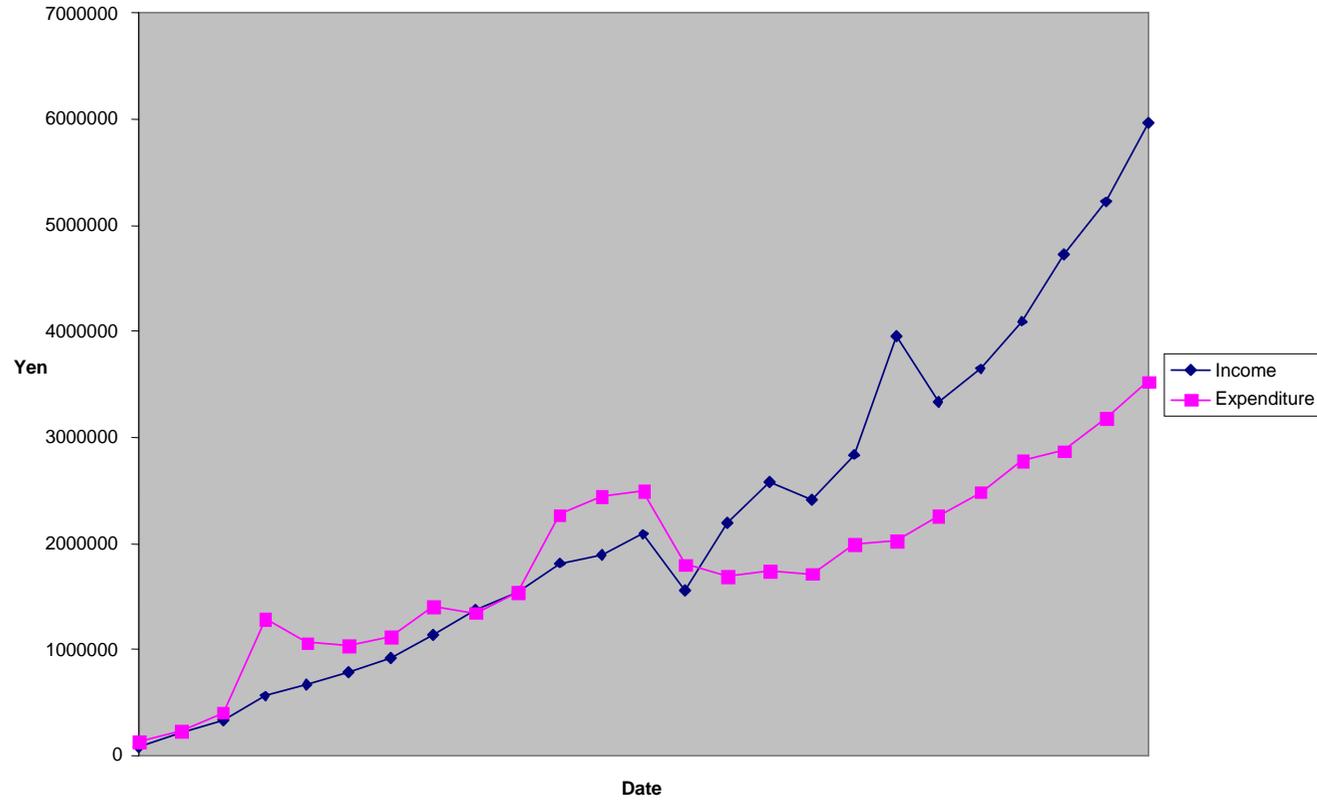


Figure 6: Postal Usage and National Income

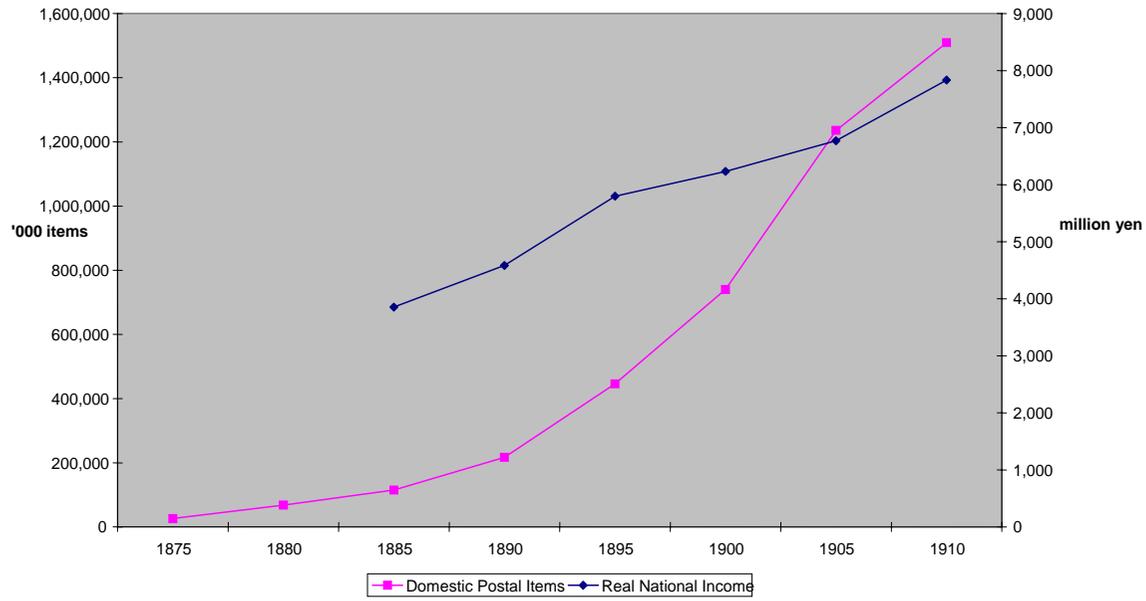


Figure 7: Number of Items Mailed per Head of Population, 1871-1938

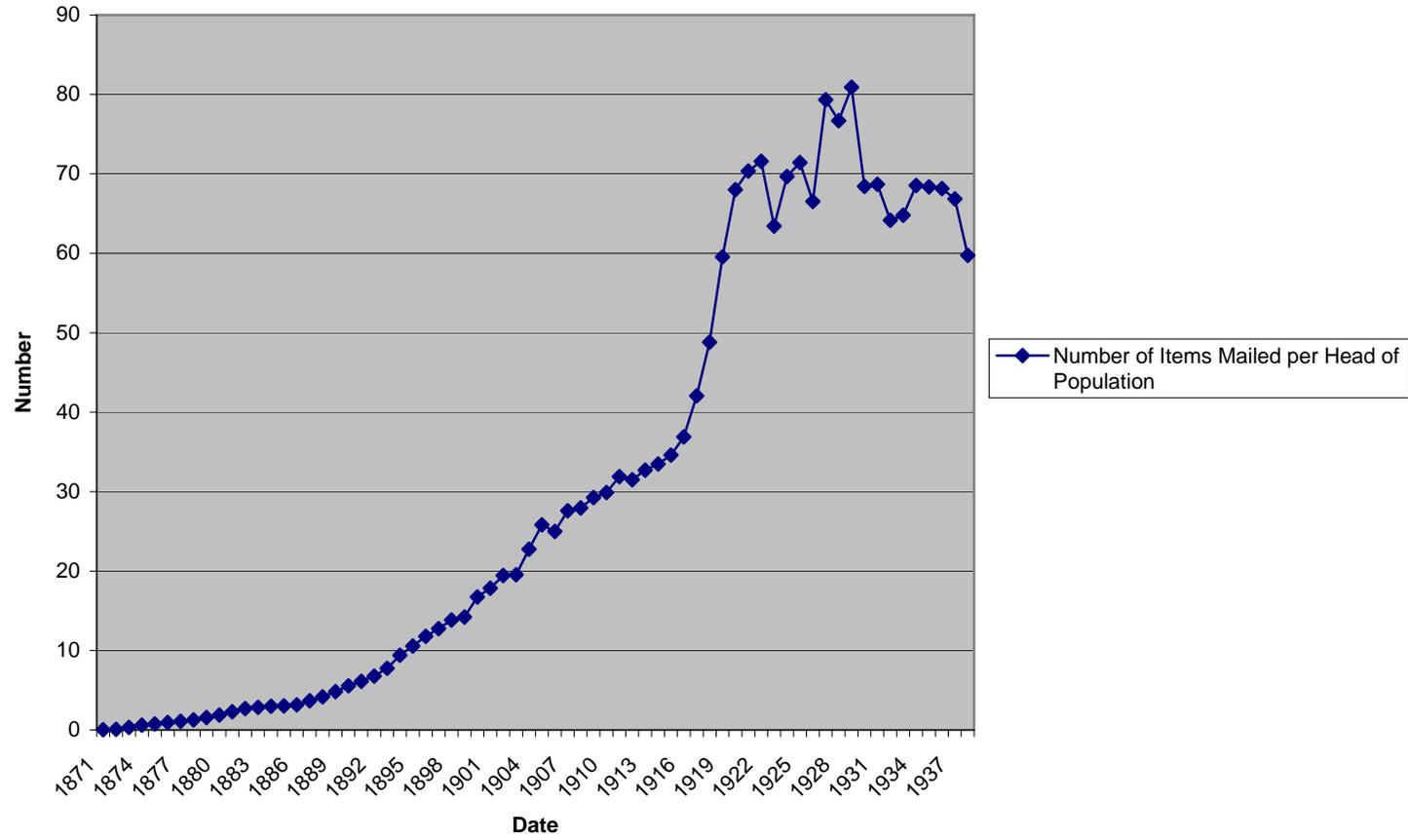


Figure 8: International Comparison of Letters per Head of Population, 1896 and 1910

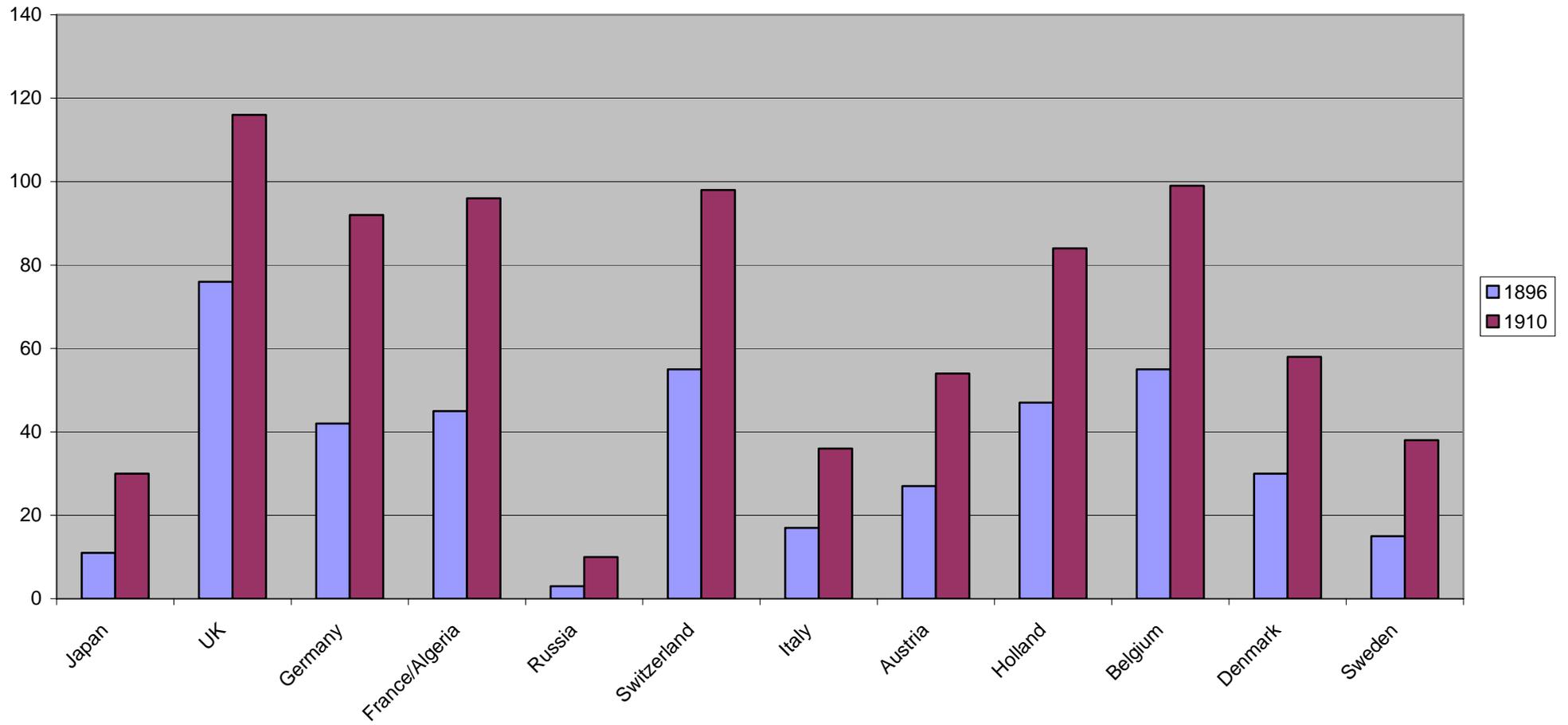


Figure 9: International Comparison of Parcels, 1896 and 1910 (items per 100 persons)

