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Simple pleasures: food consumption in Japan and the global comparison of living standards

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Abstract
Contrary both to Pomeranz's argument for the comparability of pre-industrial living standards across Eurasia and to the accumulating evidence of the extent of growth in the Japanese economy in the eighteenth and nineteenth centuries, quantitative historical comparisons of living standards consistently place Japan on a level with the least developed parts of Europe and imply that the living conditions of ordinary Japanese people only began to approach those of the industrialized West once imported modernization had been absorbed. This article uses concepts derived from comparative consumption history to go deeper into this issue, arguing that, from at least the late eighteenth century, Japanese living standards were changing in ways that paralleled equivalent developments in Europe. Through the consumption histories of a set of 'transformative' products – rice, tea, tobacco, and sugar – it seeks to demonstrate the potential for comparative qualitative analysis of living standards and to show that, in Japan as in Europe, the 'transformation of desire' paved the way for industrialization.

Keywords comparative living standards, consumption history, everyday luxuries, Japan, rice

The comparative analysis of changing living standards through time and across cultures and societies has become an increasingly important area of work in economic history, in the wake of the 'great divergence' debate and the rise of global history. Yet, while the value of such comparisons is recognized more and more, it is also becoming clear that they are far from straightforward to carry out and raise complex issues for both estimation and interpretation. This is particularly so in relation to the efforts that have been made to compare European living standards with those of the Asian societies, in particular China, Japan, and India, for which suitable data can be found. Here, Pomeranz's hypothesis that pre-industrial living standards in significant parts of East Asia were comparable with those of key areas of Europe has not found support in the growing number of studies that attempt to apply quantitative indicators, such as GDP per capita and real wage rates, across the Eurasian divide.

This is especially puzzling in the case of Japan, where substantial evidence now exists of a process of economic development that appears to have had much in common with its equivalents in those parts of Europe where the industrial revolution was to be born.[1] Japan in the Tokugawa period (1600–1868) can clearly be portrayed as a growing and thriving commercial economy, with productive agriculture and a significant manufacturing sector generating a wide range of goods for a national market. Moreover, the manufacturing sector that grew up to supply the domestic market for consumer goods during this period has increasingly been seen as crucial to the more rapid economic growth, encompassing modern industry, that began in the later nineteenth century.[2] However, the comparative quantitative indicators applied to the Japanese case by, for example, Allen et al. and Bassino et al. point to the conclusion that living standards in pre-industrial Japan were nonetheless no higher than those of the least developed parts of Europe and only began to catch up with those of the more advanced parts much later, as a result of modern industrialization.[3]

Various factors might be suggested as to why the economic growth for which Pomeranz and other scholars of pre-industrial and industrializing Japan have found evidence is not reflected in such quantitative comparisons of living standards. For Saitō Osamu,[4] indicators that are applicable to the northern European case – especially real wage rates – do not have the same meaning within the different institutional context of Japan, where few families relied solely on wage income. The more equal distribution of income that resulted also meant that the living standards of ordinary households would have been higher, for any given per capita GDP, than those of the parts of Europe where pure wage labour prevailed in agriculture and manufacturing.[5] At the same time, the urbanization rate, typically used as a proxy for non-agricultural output, will not serve if much of this output is produced and consumed in the countryside, as was the case in Japan over the pre-industrial and industrializing stages. Most significantly for this article, given the very different Japanese dietary pattern, the persistently high share of grain in overall food consumption cannot necessarily be taken as the same indication of a low standard of living as it is for Europe.

1 For Pomeranz on this, see Kenneth Pomeranz, *The great divergence: China, Europe, and the making of the modern world economy*, Princeton, NJ: Princeton University Press, 2000, ch. 3. For a survey in English of the much larger literature in Japanese, see Akira Hayami, Osamu Saitō, and Ronald Toby, eds., *Emergence of economic society in Japan, 1600–1859*, Oxford: Oxford University Press, 2004.

2 For example, Masayuki Tanimoto, ed., *The role of tradition in Japan's industrialization*, Oxford: Oxford University Press, 2006.

3 Robert Allen, Jean-Pascal Bassino, Debin Ma, Christine Moll-Murata, and Jan Luiten van Zanden, 'Wages, prices, and living standards in China, 1738–1925: in comparison with Europe, Japan, and India', *Economic History Review*, 64, S1, 2011, pp. 8–38, using Japanese data from Jean-Paul Bassino and Debin Ma, 'Japanese unskilled wages in international perspective, 1741–1913', *Research in Economic History*, 23, 2005, pp. 229–48; Jean-Paul Bassino, Stephen Broadberry, Kyoji Fukao, Bishnupriya Gupta, and Masanori Takashima, 'Japan and the Great Divergence, 730–1872', 2011, http://www.uni-leipzig.de/~eniugh/congress/fileadmin/eniugh2011/dokumente/Comparative_Living_Standards_Bassino_Broadberry_Fukao_Gupta_Takashima_2011_04_16.pdf (consulted 4 December 2012). Stephen Broadberry and Bishnupriya Gupta, 'The early modern great divergence: wages, prices and economic development in Europe and Asia, 1500–1800', *Economic History Review*, 59, 1, 2006, pp. 2–31, draws similar conclusions about European vs. Asian living standards from an exhaustive analysis of wage rates, although not explicitly covering Japan.

4 Please note that authors writing in Japanese are cited in surname–forename order.

5 Saitō Osamu, *Hikaku keizai hatten ron (On comparative economic development)*, Tokyo: Iwanami Shoten, 2008. Some of this material is presented in English in Osamu Saitō, 'All poor, but no paupers: a Japanese perspective on the great divergence', Leverhulme Lecture series, Department of Economic and Social History, University of Cambridge, 2010, available as a podcast at http://www.econsoc.hist.cam.ac.uk/podcasts-saito.html (consulted 4 December 2012).

All this suggests that a better understanding of comparative living standards depends on a deeper and more detailed analysis of changing consumption patterns in particular contexts. In fact, evidence of the levels of consumption of particular goods, such as grains, textiles, sugar, and tea, does form part of Pomeranz's case that living standards in pre-industrial China and Japan were comparable with those of Europe, while Allen et al. do recognize the need to take account of different patterns of consumption in different social and cultural settings, even if they do not go beyond the basic goods that they see as constituting the subsistence basket.[6] However, following on from the 'discovery' of the consumer revolution in north-western Europe, developments in the burgeoning field of consumption history are now making possible a more complex understanding of the ways in which living standards, and the material culture that they embody, are transformed as the economy grows. Most significantly, the concepts and techniques that such approaches employ differ from more strictly quantitative ones in their assumption that, from the perspective of explaining or comparing economic growth and industrialization, not all goods are commensurable, in terms of either their demand-side or their supply-side linkages and effects; and it is changes in the qualities, as much as the quantities, of what is consumed that are significant for the transformation of living standards.[7]

Hence, in the European case, the pioneers in this field, such as Jan de Vries, have shown how the changes in living standards that paved the way for industrialization were not just a matter of more of the same goods: the commercial items consumed in growing quantities were not obviously equivalent to the home-made alternatives that they replaced; they did not necessarily result in improved standards of nutrition (that might be reflected in measurable indicators); they were clearly not always consumed for reasons to do with a higher level or greater security of subsistence. Rather, what was significant about them was what they meant for involvement with product and labour markets, for gender roles within the household, and in general for the much more widespread diffusion of the attitudes to goods on which the growth of mass demand depended. Hence, for de Vries, certain goods are associated with a 'transformation of consumer desire'; for Smith, with new 'cultural contexts'; for Berg, simply with 'luxury and pleasure'.[8]

Clearly, the identities of such 'transformative' consumer goods will not necessarily be the same across different societies and cultures. In Europe, as described by de Vries and others, the list of such items was headed by the so-called 'drug foods' – tea, coffee, tobacco, sugar – that were to play central roles in the emergence of a culture of 'respectability' and 'civilization' and the consumption practices in which it was embodied. Such goods were associated with other food items and with a particular set of durable household goods, thus forming the 'consumption clusters' by means of which de Vries charts the changing living standards involved in the 'industrious' and then industrial revolutions in Europe and North America.[9]

6 Pomeranz, *Great divergence*, pp. 116–27; Allen et al., 'Wages'.

7 In other words, especially in the field of consumption, 'one cannot write economic history that is not at the same time social and cultural history' (Francesco Boldizzoni, *The poverty of Clio: resurrecting economic history*, Princeton, NJ: Princeton University Press, 2011, p. 136).

8 Jan de Vries, *The industrious revolution: consumer behavior and the household economy, 1650 to the present*, New York: Cambridge University Press, 2008; Woodruff Smith, *Consumption and the making of respectability, 1600–1800*, New York: Routledge, 2002; Maxine Berg, *Luxury and pleasure in eighteenth-century Britain*, Oxford: Oxford University Press, 2005.

9 On the theory of consumption clusters, see de Vries, *Industrious revolution*, pp. 31–7.

In what follows, these concepts are utilized in an attempt to show that, in Japan too, despite the prevalence of patterns of consumption and production that were quite different in important respects from those of Europe, growth in demand for transformative consumer goods, from the eighteenth century onwards, implies both the perceived improvements in living standards and the changing relations to goods that are seen as conditioning the emergence of industrialization west of the Eurasian divide. Interestingly, in the Japanese case, the supply-side characteristics of such products were different from those of their European equivalents: most were domestically sourced and all were typically produced on a small scale, using relatively labour-intensive, though by no means unchanging or unsophisticated, techniques. Nonetheless, as the centres of consumption clusters and as key elements in the spread of new cultural contexts conducive to new forms of consumption, they offered to ever-widening circles of consumers the luxury and pleasure of rising living standards and to producers the conditions for output growth and eventual industrialization. Viewed in this way, the Japanese case can thus demonstrate how qualitative analysis of the use of goods in particular historical contexts can take us beyond the puzzles posed by quantitative comparisons and enable us to understand better the ways in which living standards have been transformed by economic growth across the globe.

Impermanent luxury: food and living standards in Europe and Japan

The initial work that drew the attention of historians to the apparent growth in demand for consumer goods preceding and conditioning industrialization in Europe was largely based on the wills and inventories that survive, in many Western countries, as records of the more-or-less durable objects that were increasingly accumulated as economic development proceeded. However, later work also came to recognize the significance of more perishable items, especially food, drink, and clothing, in the consumer revolution, even if evidence of growth and change in their consumption had to be derived from an eclectic range of not necessarily quantitative sources. Such perishable luxuries were typically first acquired by the rich as fashionable or high-status goods, but were divisible and not inherently expensive, at least in ‘populuxe’ versions, hence easily spread to much wider sections of the population.[10] The desire for these goods, and for the material, social, and cultural accessories that their consumption entailed, drew consumers into markets and changed the ways in which households operated, creating conditions for the growth in demand that underpinned industrialization. New meal patterns and the popularization of a once ‘upper-class’ diet help to explain both the consumer and the industrious revolutions, and ‘drug food’ items such as tea and coffee were the linchpins of the consumption clusters that came to embody the respectable and civilized lifestyle.

For Japan, solid records of the acquisition of durable goods are few and far between. Moreover, in the context of a land-scarce environment in which earthquake, flood, and fire

10 On the role of imported ‘luxury’ goods, such as tea, coffee, tobacco, and sugar, in transforming ordinary living standards in Europe, see Anne McCants, ‘Exotic goods, popular consumption, and the standard of living: thinking about globalization in the early modern world’, *Journal of World History*, 18, 4, 2007, pp. 433–62.

were common occurrences, the storage and accumulation of possessions represented a risky and inconvenient way to enjoy the possible benefits of rising productivity and incomes. While some types of more durable goods – such as kimono, ceramics, or portable forms of furniture – were worth accumulating to enjoy and as stores of wealth, the bedsteads, tables, and chairs recorded in European inventories were not part of the material repertoire of Japanese households. On the other hand, as will be illustrated below, a wide range of evidence now suggests that more impermanent forms of consumption – in particular of food and drink – expanded to become key elements in the 'transformation of desire' in Japan, during the Tokugawa period and beyond. For the urban (and increasingly the rural) better-off, entertaining with food and drink emerged as the central social activity and the vehicle for expressing, through the food provided and the style and abundance of specialized serving equipment, the status and fashion-consciousness of the host.[11] Meanwhile, on a day-to-day level, new eating patterns, and their associated material and social trappings, came to represent the chief indicators of the adoption of a 'civilized' lifestyle and of perceived improvement in the way of life, spreading out from the cities to the countryside and from the elite through the social and economic ranks.

Equally, however, food and drink of course represent the most important items determining the material standard of living throughout the process of growth and industrialization, making them central to comparative quantitative estimates. The use of wage rates as indicators of comparative living standards hinges on the relation between wage incomes and estimates of the 'bare bones' subsistence basket appropriate to survival at given times in given places. Beyond this, in a dynamic context, the transition from bare subsistence to a better standard of living can be defined in terms of shifts in the diet away from the cheapest source of calories, assumed to be the staple grain. The point at which what Jensen and Miller call the 'staple calorie share' starts to decline – when the marginal utility of extra calories begins to fall and factors such as taste come into play – indicates when consumers have reached what they regard, in their circumstances, as nutritional sufficiency.[12] Consequently, a more diversified diet that in particular involves a declining reliance on staple grain becomes more or less synonymous with a rise in living standards.

In the light of this, the pattern of food consumption has taken on a wider significance from the point of view of the conditions for industrialization, as currently understood. In quantitative approaches, it is the rise of specialized pastoral agriculture, generating higher labour productivity in agriculture and creating the potential for both a more diversified diet and the release of labour to specialized manufacturing, that accounts for the measured improvement in northern European living standards, as compared with both southern Europe and Asia.[13] Yet the share of pastoral agricultural products in Japanese food consumption continued to be small, even when real incomes were demonstrably approaching post-war European levels. Hence, analysis of the particular nature of food consumption in

11 Eiko Ikegami, *Bonds of civility: aesthetic networks and the political origins of Japanese culture*, New York: Cambridge University Press, 2005, p. 342. For inventory evidence of the significance of equipment for serving food and drink to guests as a marker of wealth, see Koizumi Kazuko, 'Kurashi no dōgu (Tools of everyday life)', in Iwanami Kōza, ed., *Nihon tsūshi (Japanese history)*, vol. 13, Tokyo: Iwanami Shoten, 1994, pp. 339–61.

12 Robert Jensen and Nolan Miller, 'A revealed preference approach to measuring hunger and undernutrition', NBER Working Paper no. 16555, Cambridge, MA: National Bureau of Economic Research, 2010, http://www.nber.org/papers/w16555 (consulted 4 December 2012).

13 Bassino et al., 'Japan', p. 16. See also Broadberry and Gupta, 'Early modern', pp. 26–7.

Japan can reveal how a labour-intensively produced – but nonetheless highly desirable and transformative – grain was central both to perceived improvement in living standards and to the growth of a rural household economy in which agriculture was closely intertwined with an expanding manufacturing sector. This suggests that the absence of European forms of dietary diversification may not necessarily imply a low standard of living and that the northern European trajectory in the pattern of food consumption, based on a particular form of specialized agriculture distinct from manufacturing activity, is not a necessary concomitant of economic growth and eventual industrialization.

In what follows, therefore, the tools of consumption history are applied to the analysis of change in the food and drink products that Japanese people consumed within a dietary pattern that does not appear to demonstrate a correlation between rising living standards and diversification out of grain and into meat and dairy products. This pattern may have been constrained by the Japanese agricultural and economic environment; it may have been different in terms of its technological and resource demands – more labour-intensive and less capital- and land-intensive – and this may have implications for the nature of the eventual industrialization process.[14] Yet it does not imply that consumers were not increasingly able to acquire products that raised their capacity to do more than subsist and drew them into the market for transformative goods. If it can be shown that Japanese people, through their changing eating patterns, had access to growing amounts of the items that embodied socially and culturally accepted ways of utilizing the scope to produce more – goods that tasted nice, that demonstrated status and fashion, and that enhanced sociability and entertainment – then we must conclude that we have indications of accepted advances in living standards and of the same kinds of consumer-led forces as paved the way for industrialization elsewhere.

The remainder of this article therefore summarizes the consumption histories of a set of goods that are taken for granted by Japanese consumers today but are nonetheless by no means essential to subsistence, so that their increasing consumption can only be explained through their attractions as enjoyable, fashionable, convenient, or sociable items.[15] All could be argued to be central to consumption clusters, in that their proper use involved the acquisition of other goods and accessories. They correspond to, and in some cases are broadly the same as, examples of the transformative products – embodying new cultural contexts of respectable and virtuous luxury and civilization – identified by de Vries and Smith for Europe. However, all pre-date the large-scale Western impact on Japan that followed the opening to trade with the West in the 1850s and the Meiji Restoration of 1868, and in some cases their consumption has come to define Japanese identity, even if they were initially imported as part of earlier phases of globalization. To a large extent, their consumption in the past can only be pieced together from indirect and qualitative sources, but this does not

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14 The links between consumption patterns and Sugihara's concept of a 'labour-intensive' path of industrialization in Japan and other parts of Asia (see Kaoru Sugihara, 'The East Asian path of development' in Giovanni Arrighi, Takeshi Hamashita, and Mark Seldon, eds., *The resurgence of East Asia*, London: Routledge, 2003, pp. 78–123) remain to be explored.

15 The food and drink items considered here, in the context of comparative living standards, do not of course exhaust the list of potentially transformative Japanese goods. See also Penelope Francks, 'Inconspicuous consumption: sake, beer, and the birth of the consumer in Japan', *Journal of Asian Studies*, 68, 1, 2009, pp. 135–64; Penelope Francks, 'Kimono fashion: the consumer and the growth of the textile industry in pre-war Japan', in Penelope Francks and Janet Hunter, eds., *The historical consumer: consumption and everyday life in Japan, 1850–2000*, Basingstoke: Palgrave Macmillan, 2012, pp. 151–75.

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mean that its growth was insignificant or that such goods did not contribute in major ways both to improvements in living standards and to the spread of the conditions for economic growth.

Rice and the 'transformation of desire'

It may seem strange to those familiar with prevailing work on the estimation of historical living standards to see rice, which has become defined as the staple grain of the Japanese, included under the rubric above as a transformative consumer product. Indeed, in the European context, rice at times represented the food of the poor – fed to the inmates of eighteenth-century English poorhouses, for example – and Allen et al. automatically use rice as 'the cheapest available carbohydrate' in their subsistence basket for Japan.[16] However, Latham has demonstrated how, in the context of diets in many parts of Asia, rice is 'a luxury, not a necessity', a grain much preferred over others, hence more highly priced and recognized as a status symbol, produced in a range of qualities and types from early on, and central to sophisticated and diverse cuisines.[17] In China, rice was well established by the eighteenth century as a superior food, substituted for 'coarse food' as soon incomes were high enough and traded in a market that recognized a range of different qualities and prices.[18]

Similarly in Japan, with the commercialization and Smithian growth of the eighteenth and nineteenth centuries and the industrialization that followed, demand for rice clearly continued to grow. Although we do not possess consistent series that run through from the Tokugawa period to modern times, available data from a range of regional and national sources leave little room for doubt that, despite wide geographical divergences, per capita consumption of rice was on a rising trend from at least the late eighteenth century, increased sharply from the late nineteenth century to around 1920, and maintained this level, apart from the wartime and immediate post-war periods, until the 1960s.[19] From then it began a process of decline, but nonetheless the share of grain within the diet remained high by international comparative standards, despite the 'economic miracle' that raised Japanese incomes up to and beyond those of industrialized Europe.[20]

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16 Carole Shammas, 'The eighteenth-century English diet and economic change', *Explorations in Economic History*, 21, 1984, pp. 264–5; Allen et al., 'Wages', p. 21. Although Allen et al.'s real wage estimates go back to the eighteenth century, their rice-based subsistence basket is derived from Japanese consumption surveys of the 1920s.

17 A. J. H. Latham, 'Rice is a luxury, not a necessity', in Dennis Flynn, Lionel Frost, and A. J. H. Latham, eds., *Pacific centuries: Pacific and Pacific Rim history since the sixteenth century*, London: Routledge, 1999, pp. 110–24.

18 Sui-wai Cheung, 'A desire to eat well: rice and the market in eighteenth-century China', in Francesca Bray, Peter Coclanis, Edda Fields-Black, and Dagmar Schaeffer, eds., *Rice: a global history*, Cambridge University Press, forthcoming.

19 For estimates of per capita rice consumption over the period before the Second World War, see Ōmameuda Minoru, *Okome to shoku no kindaishi (Rice and the modern history of food)*, Tokyo: Furukawa Kōbunkan, 2007, pp. 2–3, 42–7; Shinohara Miyohei, *Kojin shōhi shishutsu, chōki keizai tōkei (Personal consumption expenditure, long-term economic statistics)*, vol. 6, Tokyo: Tōyō Keizai Shinposha, 1967, tables 11 and 9. These suggest that it had reached around 0.7–0.8 *koku* of unpolished brown rice, equivalent to about 100 kg of polished white rice, by the 1870s–1880s, rising to a level of 120–130 kg of white rice (around 1 *koku* or 150 kg of unpolished rice) by the interwar period.

20 For comparative data for the early 1970s, see Yoshimi Kuroda, 'The present state of agriculture in Japan', in Emery Castle and Kenzo Hemmi, eds., *U.S.–Japanese agricultural trade relations*, Washington, DC: Resources for the Future, 1982, table 4-A-7. Although Japan's per capita GNP already exceeded the UK's at

These long-term trends resulted from a shifting pattern of substitution among the grains and other crops that formed the basis of the diet across the various regions of the country. Rice had come to Japan from China in the late centuries BCE and gradually spread throughout the country, wherever climate permitted and suitably irrigated paddy fields could be created. Alongside it, in unirrigated fields or where possible as second crops on irrigated ones, farm households continued to grow the wheat, barley, and naked barley collectively known as *mugi*, as well as millet, buckwheat, sweet potatoes, and much else, according to local agricultural conditions, for their own consumption. On the basis of this diversified grain-based diet, average calorie intake is estimated to have been above subsistence level by the late Tokugawa period.[21] The trend towards a rising share of rice within grain consumption appears to have set in from the second half of the Tokugawa period, and by the later nineteenth century, when national-level estimates are possible, rice was accounting for 60–70% of 'staple food' consumed.[22] The rise of rice was largely at the expense of 'inferior' grains such as millet, with per capita consumption of *mugi* increasing alongside that of rice until the interwar years. The marked preference for rice over other grains was thus established during the Tokugawa period and increases in output and income continued to be used to enable a shift to an increasingly rice-based diet, as compared to both the more varied grain-based pattern of earlier periods in Japan and the diversification out of grain and into meat and dairy produce in Europe.

This process clearly reflects the characteristics of rice as a consumer good in Japan and its role within the 'transformation of desire'. From the time of its introduction, rice was accorded a prestigious status among food crops that was related to its association with the superior civilization of China and the relatively high production costs that its cultivation involved, in terms of both investment in necessary irrigation facilities and day-to-day labour and skill.[23] It was adopted as a status symbol by the ruling class, and a diet involving polished white rice served on its own as it is today was for long regarded as a privilege of the imperial family, the feudal lords, and those samurai retainers able to afford it, with sumptuary regulation used (not very successfully) to try to limit its consumption by commoners. As its cultivation spread, it became the medium of feudal taxation, and a major share of the crop was handed over in kind to the local feudal authorities by its cultivators. The lords used their tax rice for their own consumption and to pay their samurai retainers, but whatever remained could be transported to Osaka or Edo (Tokyo) and sold on the sophisticated markets that grew up there to supply rice to the expanding urban population reliant on commercial purchases.[24] By the mid

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this point, daily per capita consumption of cereals stood at 340 g, compared with around 200 g or less in almost all other developed countries.

21 Kitō Hiroshi, 'Edo jidai no beishoku (Rice consumption in the Edo period)', in Haga Noboru and Ishikawa Hiroko, eds., *Zenshū Nihon no shoku bunka vol 3: kome, mugi, zakkoku, mame (Japanese food culture series, vol. 3: rice, mugi, miscellaneous grains, beans)*, Tokyo: Yūzankaku, 1998, pp. 52–3.

22 For a discussion of the various estimates on which this conclusion is based, see Kitō, 'Edo jidai', or Akira Hayami and Hiroshi Kitō, 'Demography and living standards', in Hayami, Saitō, and Toby, *Emergence*, pp. 235–40.

23 Harada Nobuo *Rekishi no naka no kome to nōka (Rice and rural households through history)*, Tokyo: Heibonsha, 1993, p. 263.

24 For examples, see Hiroshi Shimbo and Akira Hasegawa, 'The dynamics of market economy and production' in Hayami, Saitō, and Toby, *Emergence*, p. 163.

Tokugawa period, therefore, rice had effectively become a commercial crop, the consumption of which hinged on its status, associations, and taste.

Nonetheless, the demand and supply conditions relating to rice in its market were distorted in particular ways by the institutional structure. Its producers – small-scale cultivating households in the villages – had available to them only such rice as was not required for taxes or, in due course, rent, and had every incentive to sell what they did have, given market prices that reflected its desirable status and taste. Hence, although rural diets varied considerably from place to place, they typically involved one-pot stews of the kinds of non-rice grains and vegetables that households could grow for themselves alongside rice.[25] If rice was to be consumed, it would be added to such stews in unpolished form, polished white rice being eaten on its own only on special occasions. Consequently, although contemporary consumers were aware that the inclusion of non-rice grains in the diet made it more healthy,[26] the consumption of grain mixtures, with or without rice, came to be associated with rural poverty and lack of sophistication, with the result that Japanese scholarly and popular opinion has always tended to measure progress in living standards in terms of the ratio of rice to other grains in the diet.

Meanwhile, the urban population – relatively large, by European standards, in the first half of the Tokugawa period at least – for the most part depended on the market for food supplies and hence on rice, which was the most commercialized (as well as tasty and superior) grain.[27] The product marketed and consumed in the cities was polished white rice, and rice-polishing was a significant industry and employer in urban areas.[28] It could be acquired in a range of different forms and at prices reflecting regional origin, quality of processing, and so on. Those with access to cooking facilities of their own bought supplies from retail rice merchants, but pre-cooked rice was available from caterers supplying all levels of the market, from the smartest restaurant through open-air stalls and sushi-sellers, to purveyors of leftovers. While the very poorest no doubt stretched their rice with something cheaper, and other grains processed into noodles were also widely available as part of the urban eating-out culture well established by the late Tokugawa period, in general, for rich and poor alike in the cities, large quantities of rice came to form the basis of most meals.[29]

Moreover, these meals were less and less likely to take the form of the boiled grain stews of the countryside. With rising incomes and increasing availability of commercial rice, growing numbers of urban residents and sojourners were able to consume white rice on its own,

25 Naomichi Ishige, *The history and culture of Japanese food*, London: Kegan Paul, 2001, pp. 109–13; Watanabe Minoru, *Nihon shoku seikatsu shi (History of Japanese foodways)*, Tokyo: Yoshikawa Kōbunkan, 1964, p. 199.

26 See, for example, Takegaki Junko, 'Yonezawa no shokuseikatsu (Foodways in Yonezawa)', in Haga Noboru and Ishikawa Hiroko, eds., *Zenshū Nihon no shoku bunka, vol 10: nichijō no shoku (Japanese food culture series, vol. 10: everyday food)*, Tokyo: Yūzankaku, 1997, p. 113; Susan Hanley, *Everyday things in premodern Japan: the hidden legacy of material culture*, London: University of California Press, 1997, p. 79.

27 For evidence of how ordinary urban workers – the kinds of people whose wages typically form the basis of comparisons of living standards – actually lived, see Gary Leupp, *Servants, shophands, and laborers in the cities of Tokugawa Japan*, Princeton, NJ: Princeton University Press, 1992.

28 *Ibid.*, p. 137.

29 Ogi Shinzō, 'Tōkyō shomin no shokuseikatsu (Foodways of Tokyo townspeople)', in Haga Noboru and Ishikawa Hiroko, eds., *Zenshū Nihon no shoku bunka vol 2: shoku seikatsu to tabemono shi (Japanese food culture series, vol. 2: the history of food and foodways)*, Tokyo: Yūzankaku, 1999, pp. 244–53.

accompanied by as many side dishes of vegetables, fish, and soya beans as they could afford, in a form of cuisine (usually known as *kaiseki*) originally developed from temple and tea-ceremony food by the rich and fashionable in the cities. Such cuisine, whatever its scale – from rice with one side dish and a bowl of miso soup to spreads of exquisite seasonal dishes accompanied by rice – required facilities such that rice could be cooked carefully on its own, as well as enough bowls, trays, and other utensils to serve the separate elements of the meal. In this way, rice represented the key to a consumption cluster, the growing adoption of which fuelled the significant growth of a wide variety of industries, mostly located in rural areas, over the Tokugawa period and beyond.

A major example of this is provided by the ceramics industry. Korean potters brought over at the end of the sixteenth century introduced the techniques and designs that enabled regional production centres – manufacturing eating and drinking ware that ranged from high-art tea-ceremony items to disposable everyday cups and bowls – to meet the growing demand for utensils that *kaiseki*-style cuisine required, as it spread through the urban population and eventually to the rural elite as well.[30] Tokugawa-period pottery centres, like their Chinese counterparts, were able to produce goods far superior to anything available in Europe, and the role of imported ceramics, from Japan as well as China, in stimulating consumer demand in the West is now well recognized.[31]

Equally, however, the diffusion of the more sophisticated urban cuisine created demand for many other manufactured and processed products, as well as agricultural goods. These included charcoal, which provided the fuel for more controlled forms of cooking and was produced in growing amounts as a rural sideline; soy sauce, an indispensable accompaniment to bland bowls of rice, the brewing of which was a major rural industry by the late Tokugawa period; lacquerware for the chopsticks, trays, and containers that *kaiseki* cuisine demanded; and a wide variety of more or less processed accompaniments to rice, including pickles, dried and salted fish, tea (as discussed below), and fruit and vegetables of various kinds. Many of these products lent themselves to local differentiation and branding (often promoted by feudal lords keen to tax them) for consumers ranging from the ordinary wage-labourer to the gourmet and food snob.

At the same time, the association of the rice-based diet with a sophisticated urban culture made its adoption the badge of a civilized and respectable lifestyle, superior to its one-pot, mixed-grain, rural counterpart. Just as new forms of eating and drinking were central to the cultural context of the consumer revolution in Europe, so the rice-based meal pattern came to define approaches to food as much more than just subsistence and as a vehicle for fashion and the demonstration of 'civilization'. Table manners and all the rituals involved in social dining – key elements in the cultural processes of consumption growth in Japan as in Europe – were defined in terms of rice-based, *kaiseki*-style meals, not the communal stews of the countryside.[32]

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30 Ishige, *History*, pp. 100–1. The highest-ranking rural households in Koizumi's survey of inventory data for 1725–1840 averaged over 400 items of food-serving equipment each (Koizumi, 'Kurashi no dōgu', pp. 343–5). At the other extreme, a bonus paid in kind to a male servant at the end of his contract in 1826 included bowls and cups for ten people (Susan Hanley and Kozo Yamamura, *Economic and demographic change in preindustrial Japan, 1600–1868*, Princeton, NJ: Princeton University Press, 1977, pp. 158–9).

31 Berg, *Luxury*, pp. 71–2.

32 Ikegami, *Bonds*, pp. 337–42; Michael Kinski, '"How to eat the ten thousand things": table manners in the Edo period', in Eric Rath and Stephanie Assman, eds., *Japanese foodways past and present*, Urbana, IL: University of Illinois Press, 2010, pp. 42–67.

By the time of the Restoration, therefore, the urban population had already reached the stage at which the consumption of white rice on its own was indispensable to their identity as civilized Japanese people, and at least the elite of rural society had gone far in the same direction. In the 1840s, an Edo merchant household (including family and servants) was getting through a massive average of 228 kg of rice each in a year.[33] By the late 1890s, much lower down the social scale, a well-known survey of 'lower-class' households in Tokyo found those with jobs such as rickshaw-puller spending 80% of their food budget on white rice.[34] Diets were slower to change in the countryside: a survey of a village in the orbit of Tokyo, carried out in 1903–04, found the upper class of households consuming rice on its own as their staple grain, the middle class a 50 : 50 mix of rice and *mugi* and the lower class 70% *mugi* and 30% rice.[35] Data for annual per capita rice consumption in the interwar period show the urban level rising from around 165 kg in 1920 to a peak of 200 kg by 1930, while the rural level remained around 150 kg.[36]

As industrialization and urbanization proceeded through the late nineteenth century and accelerated with the industrial boom of the 1910s, increasing numbers of people thus came to adopt what had become accepted as the proper urban diet, even if all they could afford was the left-over cooked rice from barracks and schools, and numerous stories tell of the distaste felt by urban migrants for the mixed-grain diet still consumed by their rural relatives.[37] The resulting growth in demand for rice was more than Japanese farmers could meet and by the turn of the century, imports were thus becoming essential, as a means to stem the rising rice price. However, the Indica-type rice available on the world market was regarded as more or less equivalent to *mugi*, in the eyes of Japanese consumers, and not as a substitute for Japanese varieties of rice in its role within a respectable meal pattern. The demand that Japanese-type rice should be available at an affordable price was the trigger for the so-called Rice Riots of 1918 and by then polished Japanese-style rice was so essential to a civilized lifestyle that even middle-class households took to the streets to protest a prohibitive price.[38] The development of rice cultivation, using Japanese varieties, in the newly acquired colonies of Taiwan and Korea eased the pressure on domestic supply, but the continued high demand for Japanese rice, despite the influx of imports from the empire and elsewhere, ensured that rural households persisted with the labour-intensive cultivation of the land to which they had access, even if they were increasingly able to combine this with non-agricultural work locally or further afield.

During the interwar years, opportunities to consume Western-style foods according to Western-style dining practices spread, even though these still had to fit alongside the

33 Mochida Keizō, *Nihon no kome (Japanese rice)*, Tokyo: Chikuma Shobō, 1990, pp. 21–2.

34 Masayoshi Chūbachi and Koji Taira, 'Poverty in modern Japan: perceptions and realities', in Hugh Patrick, ed., *Japanese industrialization and its social consequences*, Berkeley, CA: University of California Press, 1976. pp. 413–16.

35 Ogino Yoshihiro and Yamaguchi Yoshito, 'Kokunaishijō – seisaku suijun (The domestic market and living standards)', in Ishii Kanji, Hara Akira, and Takeda Haruhito, eds., *Nihon keizai shi 2: sangyō kakumei ki (Economic history of Japan 2: the industrial revolution period)*, Tokyo: Tōkyō Daigaku Shuppankai, 2000, pp. 194–5. It is not clear how the classes were defined.

36 Shinohara, *Kojin shōhi shishutsu*, table 6.3.

37 For example, Ogi, 'Tōkyō shomin', p. 227.

38 Michael Lewis, *Rioters and citizens: mass protest in imperial Japan*, Berkeley, CA: University of California Press, 1990.

rice-based format of Japanese-style eating. In the post-war years, these opportunities increased dramatically, to the point where, eventually, per capita rice consumption did begin to fall. Nonetheless, even if they switched from rice to toast for breakfast and regularly ate hamburgers, there were few households in which a proper Japanese-style meal involving rice was not consumed at least once a day.[39] The continuing role of rice, both in determining eating patterns and as a stimulus to wider consumption, is suggested by the fact that the electric rice-cooker, designed to cook rice to serve in the Japanese way, became the most widely diffused and in many ways most revolutionary – in terms of the everyday lives of women at least – of the home appliances on which the Japanese electrical goods industry was built.[40]

For Japanese people, therefore, rice was by no means the cheapest source of carbohydrate but rather a tasty and sophisticated consumer good that embodied their modern urban identity. Being able, as a result of rising income and urban facilities, to switch to a pure white-rice diet meant having a higher standard of living, whatever it might have done to nutrition and health. In this respect, the role of rice in transforming living standards is similar to that played by bread made with white wheat flour within the European pattern of food consumption. Collins shows that, as late as the mid nineteenth century, wheat was a luxury rather than a staple grain in much of Europe, and that per capita consumption of it was still increasing in south-eastern Europe and the Mediterranean into the 1950s and even the 1970s.[41] Wheaten bread gradually replaced porridges and breads made with other grains, even though it was widely understood to be less nutritious and kept less well, while the resulting high price for wheat encouraged rural households to market it and eat something else themselves. Just as with rice in Japan, the whiteness of one's everyday staple was an indicator of social status and white bread became associated with life in the cities, where commercial bakeries could produce it on a daily basis.

However, the role of rice in the 'transformation of desire' in Japan was bound to be more significant than that of white bread in Europe, not only because rice continued to represent a larger element in food expenditure, thereby limiting the diversification into other food products, but also because its consumption involved a much greater change in day-to-day eating practice and necessitated the acquisition of a whole new consumption cluster of manufactured and processed goods. In the case of Japan, therefore, rice must be seen as a key transformative good, such that its dominance of food consumption, resulting in a continued high share for grains in overall food intake, cannot be taken to imply a relatively low standard of living, as it perhaps could in Europe, and in fact serves as an indicator of the emerging cultural context of Japanese consumer society. Instead of using their rising incomes to acquire the products of land-intensive pastoral agriculture, Japanese people used them to consume labour-intensively grown rice, but were nonetheless, in the process, drawn into markets and into the relationships to goods that paved the way for mass demand.

39 For survey evidence from the 1990s, see Food and Agriculture Policy Research Center, *Structural changes in Japan's food system*, Tokyo: Food and Agriculture Policy Research Center, 1997, pp. 19–20.

40 Helen Macnaughtan, 'Building up steam as consumers: women, rice cookers and the consumption of everyday household goods in Japan', in Francks and Hunter, *Historical consumer*, pp. 79–106.

41 E. J. T. Collins, 'Why wheat?', *Journal of European Economic History*, 22, 1993, pp. 7–38; see also Raffaella Sarti, *Europe at home: family and material culture, 1500–1800*, New Haven, CT: Yale University Press, 2002, p. 171.

Tea, tobacco, and sugar: simple pleasures, respectability, and 'civilization'

One might conclude from the case of rice that the goods contributing to a rise in living standards in one society cannot be equated with those fulfilling the same function in another. Evidence concerning Japanese consumption of other food and drink items, however, suggests that this conclusion may not apply across the board. From the eighteenth century onwards, growing numbers of Japanese people were coming to consume increasing amounts of the same (or similar) stimulating, flavour-giving, and sociable goods as used by their European and North American counterparts to express and enjoy rising incomes and to live out new kinds of social and family life within an expanding market economy. These goods, and the consumption clusters in which they were embedded, are major elements in de Vries's analysis of the 'transformation of desire' and Smith's presentation of the cultural context of respectability and civilization that promoted the consumer revolution in Europe, as well as featuring significantly in the measurement and assessment of living standards in the West. A wide variety of evidence suggests that, in Japan too, increasing consumption of such goods preceded industrialization and helped to create the conditions for the mass market that would sustain modern economic growth. While the role of rice as an element in rising living standards and the growth of consumption may be particular to Japan, that of three other 'transformative' products – tea, sugar, and tobacco – clearly is not. Changes in the quantities and qualities of these everyday but non-subsistence goods in Japan confirm that a transformation, similar to that observed in Europe, must have been occurring there too.

Consumption of tea played a key role within the cultural context of the consumer revolution in the eighteenth century, especially in the Anglo-American world. Along with breakfast (at which tea was also drunk), 'tea' represented a new meal-time ritual, involving an appropriate consumption cluster of crockery, cutlery, and tea-making equipment, by means of which women established the norms of civilized, sociable behaviour within the circle of family and friends.[42] While male society was being civilized within the more public world of the coffee house, women – at first upper- and middle-class ones, but increasingly across the social scale – presided over the teapot, surrounded by appropriately behaved friends and family. Hence, for de Vries, purchases of tea and tea equipment serve as a measure of the spread of new forms of consumption through the income scale.[43] For McCants, eighteenth-century Dutch inventories provide evidence that even the poorest of households were by then hooked on tea and coffee, products of no nutritional value but with 'transformative power' over economic, social, and cultural life.[44]

In Japan, the different (and largely gender-specific) functions of tea and coffee outlined by Smith were combined in the case of tea. Although tea was known in Japan much earlier, the arrival of Zen Buddhism from China in the thirteenth century led to a growing interest in its cultivation and consumption.[45] The drinking of green tea (without any additions such as sugar) for its stimulating and medicinal properties began to spread as part of monastic

42 Smith, *Consumption*, pp. 171–5.

43 De Vries, *Industrious revolution*, pp. 151–2.

44 Anne McCants, 'Poor consumers as global consumers: the diffusion of tea and coffee drinking in the eighteenth century', *Economic History Review* 61, S1, 2008, pp. 172–200.

45 Watanabe, *Nihon shoku seikatsu*, 126–7.

practice, eventually evolving into the formal tea ceremony, which became a popular cultural and social activity among military groups, subsequently taken up by the feudal upper classes and samurai of the Tokugawa period. Particular regions came to specialize in cultivating and processing tea for the tea-ceremony market. This had to be carefully grown and harvested and then rolled and dried so that it could be ground into the powder that is whisked with water during the ceremony. The consumption of tea in this form emphasized correct behaviour and membership of a group (at this stage largely male), functioning as a means of taming the martial instincts of the samurai and bringing together members of rural elites. The social activity of tea-drinking thus became associated with civilized behaviour and with a certain ritual and ceremony. It also laid great stress on the beauty and cachet of the items of equipment used, increasingly reflected in their monetary value. As Ikegami puts it, 'the tea ceremony was heavily implicated in connoisseurship and material fetishism'.[46]

However, the tea that became a part of everyday life during the Tokugawa period was not consumed in the same form or with the same degree of ceremony as was required by the 'way of tea'. No doubt rural households continued to plant tea bushes and pick leaves for their own use, but early in the period producers in the Kyoto region began to process and sell tea in leaf form, on the basis of a technique that involved briefly steaming the leaves to produce what is known as *sencha*.[47] The leaves could then be infused in a teapot, as is normal practice today, and the result was a drink with a sweeter taste and a nicer colour than tea-ceremony *matcha*, and one that could easily be consumed on a regular basis, in the home or at social venues, by women as well as men, even if some of the social etiquette of the formal tea ceremony still clung to it.

As tea in this form became an accepted accompaniment to meals, as well as a standard offering to visitors and an essential pick-me-up during breaks from work, commercial production and consumption of *sencha* expanded at a significant rate. Tea-drinking was already spreading beyond the military elite by the fourteenth century and by the last decade of the seventeenth century, when the practice was still a relative novelty in northern Europe, Engelbert Kaempfer, visiting Japan, found teapots and kettles of boiling water available all day in ordinary homes, providing refreshment for visitors and residents alike.[48] Tea was soon being produced in different qualities and regional brands, from the first new leaves of the year most appreciated by connoisseurs to the products of a few bushes planted along field-sides.[49] By the later Tokugawa period, it was a major item of production and consumption in rural areas, subject to heavy domain taxation but also to entrepreneurial efforts to develop it as a commercial crop, as consumers switched from home-grown to purchased supplies.[50] By the time of the national survey known as

46 Ikegami, *Bonds*, p. 125.

47 Takeuchi Makoto, *Edo shumin no ishokujū (The clothing, food and housing of Edo townspeople)*, Tokyo: Gakken Kenkyūsha, 2003, p. 91.

48 Watanabe, *Nihon shoku seikatsu* 127; Alan Macfarlane, *The savage wars of peace*, Oxford: Blackwell, 1997, pp. 136–7.

49 For example, 'Yamamoto-yama' tea was a trademark product of Edo often taken home as a souvenir by visitors (Constantine Vaporis, 'To Edo and back: alternate attendance and Japanese culture in the early modern period', *Journal of Japanese Studies*, 23, 1, 1997, p. 43).

50 Edward Pratt, *Japan's rural elite: the economic foundations of the gōnō*, Cambridge, MA: Harvard University Asia Center, 1999, pp. 158–69.

the Fuken Bussanhyō of 1874, tea was in large part a commercial product, with 60% of the volume of output recorded coming from three specialist tea-growing areas (Kyoto, Shiga, and Shizuoka).[51]

This tea was consumed both inside and outside the home. It could be drunk with all kinds of meals but was an essential element in a proper rice-based menu. From the late seventeenth century, the tea houses that had emerged in the towns and cities were metamorphosing into restaurants, as the snacks that they offered to accompany tea grew more and more substantial.[52] Inns and stalls sold tea as refreshment to passing travellers and the custom for workers to take a tea break in the mornings and afternoons became widely established.[53] By the late Tokugawa period, tea merchants were doing the rounds of villages and a feudal official complained that 'even farmers' were enjoying 'the way of tea'.[54] Altogether, therefore, although individuals might enjoy tea for its restorative and health-giving properties, it also appears to have become established, by the end of the Tokugawa period, as a central element in social rituals at all levels of society throughout the country and as a significant commercial product.

As in Europe, Japanese social tea-drinking involved a consumption cluster of items associated with the correct preparation and serving of the drink. These included the teapots and cups, the kettles, caddies, and spoons that were essential in both practical and ritual terms to tea-drinking and that could range from the most beautiful and expensive to the ordinary and everyday. Teacups, saucers, and ladles, as well as tea itself, featured regularly in the shopping lists of samurai retainers on their visits to Edo in the retinues of their lords;[55] teapots and kettles, bought from travelling salesmen sent out by specialist shops, appeared in the purchases of, for instance, early nineteenth-century village headmen.[56] At the same time, although tea itself was not drunk sweetened, it was accompanied, if at all possible, by some form of sweet confectionery, so that, as described below, the market for sugar-based Japanese-style cakes (*o-kashi*) was undoubtedly growing over the course of the Tokugawa period and beyond.

Quantitative estimates of the extent of tea consumption that resulted from its establishment within Japanese everyday life during the Tokugawa period are impossible to make for the years before the 1870s: in contrast to Europe, where all tea consumed was imported, Japanese tea was all home-grown, some of it on a subsistence basis, and no national-level data on output or areas planted were collected until after the establishment of the Meiji government. However, by 1874, annual per capita domestic supply (recorded production less the three-quarters of the Japanese crop exported at this time) works out at

51 Yamaguchi Kazuo, *Meiji zenki keizai no bunseki (An analysis of the early Meiji economy)*, Tokyo: Tokyo Daigaku Shuppansha, 1963, p. 18.

52 Ishige, *History*, pp. 118–22.

53 See, for example, Takegaki,'Yonezawa', p. 134.

54 Quoted in Sasama Yoshifumi, *Nihon shokuhin kōgyō shi (History of the Japanese food-processing industry)*, Tokyo: Tōyō Keizai Shinposha, 1979, p. 23.

55 Constantine Vaporis, *Tour of duty: samurai, military service in Edo, and the culture of early modern Japan*, Honolulu, HI: University of Hawai'i Press, 2008, pp. 210–22.

56 Narimatsu Saeko, 'Kinsei goki no nikki ni miru shōya kazoku no seikatsu (The lives of late Tokugawa merchant families as seen in diaries)', in Hayami Akira, Saitō Osamu, and Sugiyama Shinya, eds., *Tokugawa shakai kara no tenbō (The view from Tokugawa society)*, Tokyo: Dōbunkan, 1989, p. 178.

approximately 0.2 lb (3.2 oz) or 0.1 kg, rising to almost half a pound or 0.22 kg by 1900.[57] By the nineteenth century, per capita tea consumption in England was many times higher than this but for the rest of Europe (excluding Russia) Pomeranz gives estimates of 2 oz in the 1780s and 4 in 1840.[58] De Vries suggests a figure of 0.12 kg for the whole of Europe in the 1780s, though consumption was much lower (0.05 kg) if Britain and the Netherlands are excluded.[59] In many parts of Europe, coffee fulfilled the functions of tea in Japan but, even allowing for this, it would appear that pre-industrial Japanese tea-drinkers were consuming stimulating drink in amounts not unlike those of most Europeans at comparable stages in their economic development.[60]

As industrialization proceeded, Japanese tea consumption continued to grow, with the real per capita value of domestic consumer expenditure on tea more than tripling between 1910 and the eve of war in 1937.[61] With the growth of large urban markets, the organizations of tea-producers in their individual regions increasingly competed to sell their products at both mass and niche levels. High-quality tea, branded as coming from the best growing regions, was sold throughout the country by mail order.[62] In the interwar years, the health-giving qualities of Japanese green tea were used to recreate it as a modern, 'scientific' product by means of advertising in the rapidly developing media. Nonetheless, tea retained the central role that it had come to play within Japanese consumption patterns and social ritual – a role created and diffused over the course of the Tokugawa period, as more and more people, in ever-widening strata of society came to drink tea as an element in a respectable and civilized lifestyle.

In similar ways, growth in tobacco consumption played its role in the social relations of the 'transformation of desire' in Japan as in Europe. Tobacco from the New World began to spread through Europe in the seventeenth century and smoking – typically in taverns and coffee houses, using commercially made pipes – diffused rapidly throughout the continent and across the social strata.[63] It was associated with sailors and colonial pioneers and was largely the preserve of men, eventually coming to embody what Smith calls 'rational masculinity', being calming and mind-enhancing, though also dirty and smelly to the extent that respectable women withdrew when men smoked. Demand had reached a plateau by the

57 Calculated from Shinohara, *Kojin shōhi shishutsu*, table 74, using population data from Kazushi Ohkawa and Miyohei Shinohara, eds., *Patterns of Japanese economic development*, New Haven, CT: Yale University Press, 1979, table A53.

58 Pomeranz, *Great divergence*, p. 117.

59 De Vries, *Industrious revolution*, p. 160.

60 Coffee was known in Nagasaki during the Tokugawa period but not introduced to Tokyo until after 1868. Cafes were beginning to offer it in the 1910s but widespread coffee consumption did not develop until after the Second World War (Watanabe, *Nihon shoku seikatsu*, pp. 276–7).

61 Calculated from Shinohara, *Kojin shōhi shishutsu*, table 73, deflated by the consumer price index and population data in Ohkawa and Shinohara, *Patterns*, tables A50 and A53.

62 See Isamu Mitsuzono, 'Mail-order retailing in pre-war Japan: a pathway of consumption before the mass market', in Francks and Hunter, *Historical consumer*, pp. 27–80.

63 For details, see de Vries, *Industrious revolution*, pp. 157–8, 161; Smith, *Consumption*, pp. 161–9. Tobacco was also chewed or used as snuff (see Jacob Price, 'Tobacco use and tobacco taxation', in Jordan Goodman, Paul E. Lovejoy, and Andrew Sherratt, eds., *Consuming habits: global and historical perspectives on how cultures define drugs*, 2nd edn, London: Routledge, 2007, pp. 158–77), though I have found no evidence of these practices in Japan.

eighteenth century, exceeding it only with the spread of the cigarette from the late nineteenth century, which made smoking a more convenient and individual activity, eventually acceptable for women too. Meanwhile, the use of tobacco, by both men and women, had also become widely prevalent in China by the late eighteenth century.[64]

In Japan, tobacco and the practice of smoking it arrived with Spanish or Portuguese explorers at about the same time as in Europe. Smoking was first taken up by 'antisocial' elements such as *kabuki* actors and features in early eighteenth-century lists of prohibited activities for such groups, on the grounds that it constituted both an idle foreign practice that flouted public morals and a fire risk.[65] Nonetheless, tobacco cultivation and consumption seem to have spread remarkably rapidly: as early as the first decade of the seventeenth century, the shogunate was already trying to ban smoking altogether and repeated edicts attempted to restrict tobacco cultivation. The shogunal authorities did not give up on these attempts until the middle of the century and sumptuary regulations relating to smoking accoutrements continued to be issued into the eighteenth century.[66] However, the shogun Iemitsu, who succeeded to the post in 1760, was a confirmed smoker and it is clear that the smoking habit was by then well entrenched throughout the country he ruled. Tokugawa-period prints showing people smoking range from portraits of scholars and actors to rural scenes in which male and female workers and travellers are depicted taking smoking breaks.[67] Smoking thus appears to have become a common activity across the divides of class, income, gender, and geography.

Although farming households no doubt grew tobacco for their own consumption, it quickly became a commercial crop in which particular regions specialized. Feudal rulers of such areas taxed tobacco production and sought to control the trade in it. Regional differentiation in quality and taste resulted and blending to produce superior 'brands' also developed, so that there were hundreds of regional varieties by the second half of the Tokugawa period.[68] In towns and cities, tobacconists' shops became common, while tobacco was also available to smoke in bars and restaurants and in wayside inns and stalls.

The nature of tobacco as a commercial product was determined by the way in which Japanese smokers came to consume it and by the 'tobacco culture' that emerged. Tobacco was smoked in a long-stemmed pipe (*kiseru*), possibly modelled on those of the foreign sailors who introduced the habit but produced in different styles reflecting regional tastes and the status or wealth of the smoker. For use in a *kiseru*, tobacco had to be chopped as finely as possible so that it could be inserted into the small bowl of the pipe. Shredding tobacco leaves sufficiently finely was a skilled task in which tobacconists specialized, and the finer the tobacco, the more the connoisseur would pay for it. As demand grew, attempts were

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64 Antonia Finnane, 'Yangzhou's "mondernity": fashion and consumption in the early nineteenth century', *positions*, 11, 2, 2003, pp. 405, 408–9.

65 Miura Ryōichi and Suzuki Toshio, *Nihon tabako sangyō: hyakunen no ayumi (The Japanese tobacco industry: the story of a hundred years)*, Tokyo: San'aishoin, 2009, p. 8.

66 Donald Shively, 'Sumptuary regulation and status in early Tokugawa Japan', *Harvard Journal of Asiatic Studies*, 25, 1964, p. 135.

67 See examples in *Tobacco and Salt Museum* (catalogue), Tokyo: Tabako to Shio no Hakubutsukan, 2001, p. 29.

68 Miura and Suzuki, *Nihon Tabako*, pp. 9–10.

made to devise equipment to speed up the shredding process and by the late Tokugawa period various kinds of machine were available that significantly increased the productivity of the tobacco-shredder.[69] With finer tobacco, pipes became shorter and more portable, opening up many more opportunities for stopping for a smoke, as well as a growing market for fashionable smoking accessories.[70]

As in the West, smoking initially spread as a social activity. However, the clubby, masculine connotations of smoking in Europe did not emerge in Tokugawa-period Japan. *Kiseru* were elegant objects and geisha are portrayed with their pipes, as are the female workers who inhabit many prints of scenes from everyday life. At first, smoking was largely practised indoors, as part of the ritual of receiving and entertaining guests, who would be offered tea and tobacco. However, in due course, tobacco and smoking equipment were made available in a wide range of public venues, from the smartest restaurant to the wayside tea-stall, and smoking became an accepted element in many kinds of social gathering. As travel increased and portable smoking equipment developed, smoking outdoors and on one's own became more common and the poets and intellectuals who wrote in praise of smoking lauded it as a relaxing personal activity, as well as a sociable and even healthy one.[71]

As with tea, the consumption of tobacco was the central element in a consumption cluster, probably to a greater extent than was the case in Europe. In a society where conspicuous displays of wealth or taste, especially among the non-samurai and peasant classes, remained subject to sumptuary regulation and general suspicion on the part of the ruling class, the small and relatively inconspicuous accessories to smoking represented popular vehicles for fashion and consumerism. *Kiseru* pipes themselves could be elaborately decorated, while the cases and pouches in which pipe, tobacco, and flint were carried could be made of expensive materials to the highest standards of craftsmanship for subtle display. Portable trays, with handles and drawers, containing matching smoking equipment and miniature braziers were offered to guests in homes, shops, and restaurants. While examples of the most expensive and beautifully crafted of such objects are displayed in museums today, by the nineteenth century, populuxe versions (right down to the tobacco pouch sold by a peddler at a fair) were standard pieces of equipment in ordinary homes. Smoking clearly drew its practitioners – rich or poor, rural or urban, male or female – into the acquisition of consumer goods in the market.

We can only assess how widely smoking had spread during the Tokugawa period from qualitative evidence but by the time that national-level data were first being assembled in 1874, domestic production of tobacco leaves represented the equivalent of 0.4 kg per person per year.[72] De Vries suggests a figure of 0.5 kg for per capita consumption in the whole of Europe in the 1780s and 0.4 kg if Britain and the Netherlands are excluded.[73] By 1900, Japanese per capita consumption of domestically grown tobacco had reached 0.9 kg,

69 *Ibid.*, p. 10

70 See examples in Takeuchi, *Edo shumin*, pp. 88–9.

71 *Tobacco and Salt Museum*, p. 46.

72 Calculated from Shinohara, *Kojin shōhi shishutsu*, table 76. Some tobacco was imported into Japan throughout the period before the Second World War, but the quantities were small compared with domestic production.

73 De Vries, *Industrious revolution*, p. 160.

although thereafter it more or less stagnated. It thus appears that smoking was established to something approaching European levels during the Tokugawa period and, although it continued to increase in the decades after the opening to the West, this was on the basis of the pre-existing development of commercial production and the tastes and practices of smoking.

After the Meiji Restoration, growing contact with the West brought the cigarette to Japan but it was not until the late 1910s that sales of tobacco in cigarette form overtook those of shredded pipe tobacco, and the *kiseru* remained common until at least the interwar period.[74] Consumers were already used to social smoking, to the branding and advertising of tobacco products, and to tobacco as a relatively accessible consumer good. The convenience of cigarettes meant that smoking became a more 'modern', masculine, and individualistic activity, but this does not appear to have resulted in an increase in per capita consumption. Although smoking rates among Japanese men remained among the highest in the world, it was not the cigarette that had made Japanese people smokers but rather a long process of embedding an everyday luxury that went back to the late sixteenth century. As in Europe, therefore, the spread of smoking and the growth of tobacco consumption act as indicators of a rising standard of living involving new forms of social activity and new relations to the world of goods.

In the case of sugar, consumption growth is bound to be influenced by the prevailing dietary pattern into which it fits. Sydney Mintz, in his pioneering work on sugar, was one of the first to demonstrate how the consumption history of a product can be related to the processes of economic growth and industrialization.[75] Rising per capita consumption of sugar appears to have been a common feature associated with rising incomes across Europe, even though no-one matched the British in incorporating large amounts of it into everyday diets, and Pomeranz makes extensive use of sugar consumption as an indicator of comparative living standards across Eurasia. In China, as in Japan, however, sugar was not used to sweeten tea and its restricted consumption within the home, as a condiment or medicine, might explain the relatively slow long-term growth in domestic demand that Mazumdar finds.[76] Nevertheless, Pomeranz, estimating from the supply side, argues that eighteenth-century Chinese levels of per capita consumption must still have been high by European standards.[77] The Japanese case outlined below shows how sugar, especially when processed into confectionery treats and snacks, could become established as an everyday luxury even within East Asian dietary patterns, paving the way for more rapid consumption growth once the opening up to global trade came to offer cheaper and more abundant supplies of sweetness.

Sugar was another Chinese introduction into Japan, and through the Tokugawa period Asian imports, via Nagasaki, continued to supply the best white sugar. This was an expensive product, sold in pharmacies and used, as in Europe, as a medicine and high-quality gift.[78] Other sources of sweetness, in particular the sweet rice wine known as *mirin*, were increasingly used in

74 Shinohara, *Kojin shōhi shishutsu*, table 75. The association of smoking with the *kiseru* pipe was ridiculed by foreign cartoonists, who portrayed Japanese smokers smoking their cigarettes through *kiseru*-shaped holders (*Tobacco and Salt Museum*, p. 39).

75 Sidney Mintz, *Sweetness and power: the place of sugar in modern history*, London: Penguin, 1985.

76 Sucheta Mazumdar, *Sugar and society in China: peasants, technology, and the world market*, Cambridge, MA: Harvard University Press, 1998, p. 29.

77 Pomeranz, *Great divergence*, 118–23.

78 Watanabe, *Nihon shoku seikatsu*, p. 73.

cooking, especially as salty soy sauce became more widespread, so that sugar as such appears to have remained a relatively rare household purchase. Nonetheless, from the early eighteenth century, domestic cultivation of sugar cane was being promoted, with a number of domains attempting to establish it, and the quantities marketed through Osaka were growing fast up to the late Tokugawa period.[79] The quality of Japanese-produced sugar was not high and once imports of cheaper and better white sugar became more freely available, after the opening of the ports, domestic cultivation largely died out.[80] However, domestically produced brown sugar could be used for processing and it was in the form of Japanese-style *o-kashi* confectionery that sugar began to enter everyday life more widely in the Tokugawa period.

Traditional forms of sweet confectionery were necessary items in the tea ceremony but Ishige argues that the cakes and sweets enjoyed by Spanish and Portuguese visitors in the early seventeenth century suggested new forms in which sugar could be consumed and enjoyed.[81] Watanabe talks of a 'confectionery boom' during the period, and the vast majority of domestically produced sugar was used by *o-kashi* makers, mostly small-scale and local or specialized, but some employing significant numbers of workers in 'manufactories'.[82] *O-kashi* came to be produced in a huge range of forms for different purposes, from quite ordinary snacks to go with a tea break to specialities for use as gifts, and some 'brands' were known nationwide. Distinctive local *o-kashi* acted as standard souvenir products (as they still do), purchased by the growing number of tourists and travellers to take as gifts from country to town and vice versa. At the same time, the diffusion of tea-drinking was a major factor stimulating demand for sugar-based confectionery and even ordinary farmers came to expect that their reviving cup of tea would be accompanied by something sweet. Confectioner's shops were increasingly to be found in rural towns, as well as throughout urban neighbourhoods, while itinerant sweet-sellers plied their wares at markets and festivals.[83]

The influx of imported sugar from the 1850s thus met a ready market that cheaper supplies further stimulated. Household purchases of sugar for use in cooking and preserving began to expand and one of the (relatively few) significant changes over the second half of the nineteenth century in the structures of the food budgets of the rural households analysed by Nakanishi is the appearance of, or increase in expenditure on, sugar.[84] Nonetheless, the pattern of demand and the ways in which consumers incorporated sugar into their diets for the most part continued to follow the lines established during the Tokugawa period. By the 1920s, 70% of the sugar supply was still being used in confectionery production, alongside 20% for household use and 10% in other processed food and drink.[85] Although large-scale

79 Luke Roberts, *Mercantilism in a Japanese domain*, Cambridge: Cambridge University Press, 1998, pp. 189–93.

80 Sasama, *Nihon shokuhin*, pp. 47–8.

81 Ishige, *History*, pp. 84, 94.

82 Watanabe, *Nihon shoku seikatsu*, pp. 249–53.

83 Takeuchi, *Edo shumin*, p. 64

84 Nakanishi Satoru, 'Bunmei kaika to minshū seikatsu ("Civilization and enlightenment" and people's lives)', in Ishii Kanji, Hara Akira, and Takeda Haruhito, eds. *Nihon keizai shi vol. 1: bakumatsu ishin ki (Economic history of Japan, vol. 1: the late Tokugawa and Restoration period)*, Tokyo: Tokyo Daigaku Shuppankai, 2000, pp. 241, 262, 264.

85 Watanabe, *Nihon shoku seikatsu*, pp. 287.

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producers of Western-style confectionery, such as chocolate bars, did emerge, utilizing modern advertising and brand-creation techniques to establish themselves as household names, small-scale *o-kashi* producers did not die out, continuing to supply everything from speciality souvenirs to the ordinary tea-time snack. The growth in the demand for sugar became such that the establishment of sugar cultivation to supply the Japanese market became a major goal of colonial policy in Taiwan, and sugar was presented as a vital link between colony and imperial power.[86]

Hence, while Japanese per capita sugar consumption never achieved the levels of those countries where sugar was most heavily used, by the interwar period it had reached a point not far short of that of Holland and Germany.[87] Although in Japan, as elsewhere, sugar was promoted as a cheap and healthy source of calories, it continued to be consumed, for the most part, in the form of enjoyable sweet snacks and treats. Growth in sugar consumption thus indicates the extent to which rising incomes were used to fund pleasurable commercial purchases that contributed to a higher standard of living, even in the case of a product that was not easily grown in Japan, so that imports and colonial supplies became necessary to meet a major share of demand. In Japan as in Europe, therefore, consumer desire for sweetness helped to drive incorporation into the world market and eventual imperialism, while the growing consumption of sugary products attested to the expanding capacity to enjoy those goods over and above subsistence needs that higher living standards involve.

The cases of tea, tobacco, and sugar therefore suggest that, in terms of the products associated with enjoyable consumption and 'civilized' social activity, the same kind of 'transformation of desire' was occurring in Japan, from the eighteenth century onwards, as was taking place in much of consumer-revolution Europe. Although per capita consumption levels of such goods never reached those of the most advanced (and sugar-loving, tea-drinking, tobacco-addicted) parts of north-western Europe, before or during industrialization, they appear to have been quantitatively not far behind much of the rest of the European continent and qualitatively to have played similar roles in drawing consumers into commercial markets, involving them in consumption clusters, and enabling them to engage in new forms of social activity, within and beyond the home. However this might be measured in terms of comparative living standards, it nonetheless implies that ordinary consumers in pre-industrial Japan were already coming to enjoy goods for more than their subsistence value, so opening themselves up to the markets and the social practices of consumption that underpinned economic growth and subsequent industrialization.

Conclusions

The evidence assembled in this article, while only scratching the surface of what might be discovered about Japan's consumption history in comparative context, indicates that, through the eighteenth and nineteenth centuries, Japanese people were shifting their consumption patterns towards goods that fulfilled the same kinds of function as equivalent

86 Barak Kushner, 'Sweetness and empire: sugar consumption in imperial Japan', in Francks and Hunter, *Historical consumer*, pp. 127–50.

87 Estimates from Ishii Kanji, 'Kokunai shijō no keisei to hatten (The formation and development of the domestic market)', in Yamaguchi Kazuo and Ishii Kanji, eds., *Kindai Nihon no shōhin ryūtsū (Commercial trade in early modern Japan)*, Tokyo: Tokyo Daigaku Shuppankai, 1986, p. 36.

'transforming' goods in Europe. Such goods drew households into market relations; they were the central elements in consumption clusters that expanded demand for other processed and manufactured products; they embodied sociability, respectability, and 'civilization'; and they opened up, to a much greater range of people, possibilities for the use of goods as more than just the means of subsistence. They demonstrate that domestically produced agricultural goods can function as a major element in rising living standards and the consumer revolution, with manufacturing connected, as it developed, on both the supply and demand sides to agriculture, through the processing of food and drink products and the production of eating and drinking accessories, within the structure of the local consumption pattern. In particular, the fact that the Japanese diet continued to contain a high proportion of grain does not mean that people were not moving towards what they saw as both a modern, urban, commercialized lifestyle and a higher standard of living.

The quantitative methods employed to compare living standards, especially those using the limited data available on wage rates relative to the cost of a subsistence basket, cannot encompass the changing consumption pattern that reflects a 'transformation of desire' in a particular context. On the other hand, the kinds of qualitative evidence outlined above for the Japanese case can demonstrate, for example, that urban labourers – single men without access to much in the way of cooking facilities, for whom alone Tokugawa- and Meiji-period wage data exist – represented a major market for the wide range of food stalls, bars, and restaurants documented in the cities from the mid Tokugawa period onwards. Hence, they almost certainly consumed a diet that, whether or not it provided the calories and protein of the subsistence basket and despite the fact that it was dominated by rice, reflected a dynamic food culture and opened up the possibilities of eating and drinking as a means to enjoyment and sociability and as a route into the market for consumer goods.

Of course, such context-specific analysis greatly complicates the process of international comparison and this article has not attempted anything more than passing references to regions west of the Eurasian divide. Instead, it has raided the consumption history literature for analytical tools that can be used to show how Japanese patterns of consumption and living standards changed in ways that paralleled similar developments in Europe, likewise preparing the ground for industrialization and the mass market. Just as the economic structures and institutions that underlay the production of output differed between East and West, so did the pattern of consumption that emerged as incomes and productivity rose. Nonetheless, the application of such tools reveals how the rising productive power of the economy manifested itself in the growing consumption of increasingly processed and commercialized goods that satisfied evolving physical, social, and cultural desires, that encouraged the acquisition of 'clusters' of other goods, and that in general drew ordinary people, in new ways, into the world of goods.

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