

# Synthesis

## **INTRODUCTION: WHY A MICROECONOMIC STUDY OF JAPANESE PRODUCTIVITY IS NEEDED**

### **Japan's poor economic performance in the 1990s**

Japan's economic performance in the 1990s was dismal. During the decade, its GDP per capita grew by a meager 0.6%, compared with 1.7% in the US. As a result, the gap in GDP per capita between Japan and the US widened from 10% in 1990, to 20% in 1999 (Exhibit 1).

Reflecting this sluggish growth rate, Japan's unemployment rate rose from 2.3% in 1990, to 4.9% in 2000. In mid-1998, the unemployment rate surpassed that of the US.

Extensive fiscal spending and loose monetary policy have failed to put Japan's economy back on a growth path. The general government debt to GDP ratio increased from 60% in 1990, to nearly 120% in 2000 – twice the level in the US and Germany (Exhibit 2).

Japan needs to establish a sustainable path to economic growth. Only through such growth can the nation contain unemployment and debt, and increase its standard of living.

### **Productivity as the engine of growth**

What must Japan do to achieve sustainable growth?

The material standard of living in a country is measured by GDP per capita. This figure is determined by the volume of input into the economy and productivity, which is defined as the efficiency with which those inputs are used to create goods and services (ratio of value added to inputs).

Japan still ranks second among G7 countries in terms of GDP per capita because its input level is high. Even with declining working hours, the Japanese still work 11% more and use 20% more capital per worker than Americans. However Japanese productivity is mediocre. The Japanese are 31% less productive than Americans in terms of labor and 39% less productive in terms of capital (Exhibits 3 to 4).

The input-driven development path of Japan is clearly illustrated in Exhibit 5. Japan's labor and capital inputs have grown at a steady pace, surpassing those of the US by 25% and that of European countries by 30% to 50%. Japan's lower productivity offsets this high input level, resulting in per capita GDP that is lower than that of the US but higher than that of Germany, France and the UK. This is reflected in the flatter slope of Japan's development path.

The challenge for Japan is thus to increase its productivity. This is particularly important given the aging population. Labor inputs in the economy will decline as the population ages (population of 15 to 64 year olds will decline by 0.5% per year between 2000 and 2010). The working population will thus need to improve its labor productivity by at least 0.5% per year simply to keep the output from labor constant. In addition, as the population ages, the importance of returns on savings and pensions – determined by capital productivity – will increase. The Japanese household savings rate is 13% compared to 2% in the US and 11% in Germany. Since consumption equals GDP minus savings, the gap in consumption per capita with the US (25%) is larger than that in GDP per capita (20%). The lower consumption and higher savings would not be an issue if capital productivity and the returns from savings were high. However, the low capital productivity (and hence low return on savings) in Japan poses serious threats to the living standards of those who rely on savings. The degree of urgency for Japan to improve its labor and capital productivity is high.

A common misbelief is that higher productivity leads to higher unemployment. This argument misses the dynamic impact of higher productivity leading to higher output and more employment. With higher productivity, a specific good becomes less expensive and/or better goods become available at the same price. In both cases, demand is stimulated, leading to higher output and employment (Exhibit 6). Productivity in the developed world has grown twentyfold this century but has not led to greater unemployment. As agricultural productivity improved, freed-up farmers produced industrial goods, and as manufacturing productivity increased, freed-up factory workers produced services. In Japan in 1950, 45% of employment was in agriculture, 15% in manufacturing and 40% in services. By 1995, employment in agriculture had declined to 7%, while in manufacturing it had increased to 23% and 70% in services. During this enormous sector transition, output per capita increased by 750% while unemployment remained constant.

To raise employment levels, Japan needs to grow – this requires increasing its productivity.

### **“Micro-based macro approach” to identifying productivity barriers**

Why is productivity low in Japan?

This question is too broad to be answered at the macro level. Microeconomic studies of actual sectors are required if tangible barriers to productivity growth are to be identified.

In seeking economy-wide conclusions from micro findings, we employed a “micro-based macro approach.” We followed four steps, outlined below, to identify the specific external factors that have led to less competitive industry dynamics and unproductive production processes. It is these external factors that must be changed if productivity is to improve.

First, we measured the productivity of specific sectors and compared it with that in benchmark countries (e.g., the US and France). Second, we analyzed the cause of the productivity gap between Japan and the benchmark country at the production process level (i.e., what managers are doing differently). Third, we compared the different levels of pressure exerted on managers by different degrees of competition. Finally, we compared external factors, such as product market, labor market and capital market characteristics, and linked them to specific differences in industry dynamics and production processes.

After identifying the external barriers to productivity in the industries studied, we synthesized the results across cases. Through synthesis, we then identified the recurring barriers to productivity improvement in Japan.

We end our report by recommending how these barriers should be reformed, in particular addressing genuine social concerns, and describing the potential economic benefits of productivity improvement.

## **DOMESTIC SECTORS LOWER OVERALL JAPANESE PRODUCTIVITY**

### **Importance of studying domestic sectors**

Which sectors should be examined to understand Japan’s low and stagnating productivity?

To identify the target sectors, we divided the Japanese economy into three groups of sectors. The first group, global and productive manufacturing sectors, accounts for about 10% of employment overall, or slightly less than half of manufacturing employment. Sectors in this group include automotive, consumer electronics, steel and machine tools. Japan represents world best practice in these sectors, where average productivity (both labor and capital) is 120% that of the US<sup>1</sup>. The second group consists of largely domestic and unproductive sectors, such as food processing, textiles and furniture

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<sup>1</sup> See previous productivity studies by McKinsey Global Institute – e.g., “Manufacturing Productivity” (1993) and “Capital Productivity” (1995).

manufacturing. This group accounts for 15% of total employment, with average productivity at 63% that of the US<sup>2</sup>. The third group comprises domestic services, such as retailing, construction and health care, and accounts for 75% of employment. This group is equally unproductive, with average productivity at 63%<sup>3</sup> that of the US (Exhibit 7).

If Japan is to improve its overall productivity and thereby grow its GDP per capita, it must raise the productivity of domestic manufacturing and services.

### **Low productivity of four domestic sectors examined**

We studied four large domestic sectors: food processing (representing domestic manufacturing) and retailing, residential construction and health care (representing domestic services). Together, these four sectors account for 16% of GDP and 22% of employment in Japan.

We indexed labor productivity in these sectors against that of the US (set at 100). The resulting figures were: 35% for food processing, 50% for retailing, 45% for residential construction, and 93% for health care (Exhibit 8). Capital productivity was calculated for food processing (45%) and health care (82%), which gave us total factor productivity of 39% for food processing and 75% for health care. (Total factor productivity in health care includes all inputs: labor, capital, drugs, and medical supplies. Drug productivity is only 43%<sup>4</sup>).

Productivity was not just low, but stagnating. During the last decade, the productivity growth rate was almost nil in food processing and residential construction, and only very slight in retailing. No dramatic change was observed in health care either.

### **SUB-SCALE DOMESTIC OPERATORS WITH WEAK PRODUCT OFFERINGS AND INSUFFICIENT ORGANIZATIONAL SKILLS**

Given the situation described above, what are managers at the production process level in Japan doing differently that is leading to lower productivity?

The majority of jobs in domestic sectors are in unproductive sub-scale operations. The operators cannot reap economies of scale and have weak product offerings. They also tend to lack organizational skills. This situation is summarized by industry in Exhibit 9.

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<sup>2</sup> Calculated as a plug using productivity and employment in overall manufacturing (O'Mahony, 1999) and global manufacturing (MGI case studies from the past).

<sup>3</sup> Calculated as a plug using aggregate productivity and the other two productivity estimates.

## Sub-scale operators

In retail, food processing and residential construction, sub-scale operators provide the majority of jobs. These operations lack the economies of scale necessary for automation and investment in technology or marketing, and thus suffer productivity penalties.

- ¶ **Retail.** Small mom-and-pop stores still account for 55% of retail employment in Japan, compared with 19% in the US and 26% in France (Exhibit 10). Being unchained, they lack the scale to invest in information technology or advertising. The dominance of mom-and-pops in Japan translates into a lack of large-scale retailers (discounters, supermarkets and hypermarkets). The employment share of large-scale retailers is 12% in Japan, compared with 35% in the US. The difference is even more stark in the food retailing segment, which accounts for 40% of retail sales: the market share of large-scale stores is 30% in Japan, compared with 59% in the US, 65% in the UK and 64% in France.
- ¶ **Food processing.** There are six times as many food processing establishments per capita in Japan than in the US. Each of these players produces only one tenth of the value added of a US counterpart (Exhibit 11). Lack of scale inhibits the introduction of technology (e.g., extended-shelf-life technology for milk introduced in new large plants) and the automation of various processes, such as packaging. Lack of scale and automation explains 56 points of the 65-point gap between Japanese and US food processors.
- ¶ **Residential construction.** In residential construction, substantial economies of scale are reaped from building more than 20 houses at the same construction site. Large-scale developments of single-family homes account for less than 10% of the total housing market in Japan, compared with 60% in the US (Exhibit 12). This lack of scale is responsible for 15 points of the 55-point gap between Japan and the US.

## Weak product offering

In food processing, retailing and residential construction, Japan suffers from product proliferation and weak merchandizing. Many more products are offered, only for most to fail within a short period of time. In these sectors, the result is low productivity for the producer and a weak product offering for the consumer. The health care industry faces the opposite problem: no differentiated high value added services. While the lack of services does not dampen productivity, it reduces the much needed output and employment in Japan.

- ¶ **Retailing.** Weak merchandizing plagues Japanese retailing formats, especially mom-and-pop stores, department stores and specialty chain

stores. Weak merchandizing leads to less throughput per hour and higher inventory levels, which hamper productivity. Mom-and-pop stores in the US are three times as productive as those in Japan because only stores that provide distinctive services for customers (often product specialty) have withstood competition from newer formats (Exhibit 13). Weak merchandizing is responsible for 18 points of the 49-point gap with the US. Very few retail groups in Japan, such as the convenience store Seven-Eleven and clothing chain Uniqlo, have overcome this weakness to reach best-practice productivity levels.

- ¶ **Food processing.** Since Japan has six times as many processors per capita as the US, Japanese processors could have the same product variety per establishment only if they were to produce one-sixth the number of products. Instead, they produce many more products than their US counterparts. For example, a leading confectionery manufacturer in Japan achieves \$566 million in sales with 100 products, compared with Hershey Foods, which achieves \$4,436 million in sales with 80 products. The difference in sales per product is tenfold. New products are frequently introduced only to fail and be replaced with others. Product proliferation inhibits automation because volume per product is so low. Most products need to be produced on more labor-intensive flexible lines that have frequent downtime and low utilization. In addition, since marketing expenses are spread thinly across many products, strong new brands are rarely developed. Product proliferation explains another 9 points of the 65-point gap between Japan and the US.
- ¶ **Residential construction.** Product proliferation is quite evident in residential construction. The share of custom-made single-family houses is 79% in Japan, versus 25% in the US. In Japan these custom homes are either sold by traditional carpenters who rely on reputation and word-of-mouth or large housing companies that use large sales forces to push sales of these customized houses at model home parks. In contrast, in the US many houses are built simultaneously by a developer and then sold using one of the on-site houses as a model house.
- ¶ **Health care.** High levels of patient dissatisfaction signify low output (service) in the sector (Exhibit 14). The Japanese health care industry lacks services and products (i.e. output) that are offered in other countries. The lack of output does not lower productivity but limits GDP and employment in the sector. In outpatient settings, patients complain about long waiting times (up to three hours) for very short doctor visits (less than five minutes) and about the lack of privacy and courtesy from medical staff. In inpatient settings, Japanese patients endure low service levels in four- to six-person hospital rooms. Japanese patients endure length of stays that are four times higher than

the US and do not have the option to leave sooner. Furthermore, Japan has been slower than other countries to adopt new technology and drugs with superior health outcomes, including less invasive laparoscopic technology for cholecystectomy procedures and anti-depressants (Exhibits 15-16). More advanced medical technology and breakthrough drugs are clearly benefits that Japanese patients would desire. However, the Japanese health care system does not provide them as readily as do the American or European systems. These are direct output barriers (as opposed to productivity barriers) that reduce employment opportunities in the sector.

### **Insufficient organizational skills**

Although less important than small scale and weak product offering, a lack of organizational skill also affects the residential construction and health care sectors.

- ¶ **Residential construction.** Most Japanese supervisors lack construction management skills. As a result, scheduling is poor, leading to uncoordinated and delayed work. Furthermore, the incentive structure is not conducive to an efficient work process (workers are paid by the day as opposed to by output as in the US), mobilization of materials and equipment on site is badly handled and organized teams of specialized laborers are not commonly used. This explains 17 points of the 55-point gap with the US.
- ¶ **Health care.** The average length of a hospital stay in Japan is four times that in the US, even after adjustments have been made for long-term care patients (Exhibit 17). The few best-practice hospitals in Japan with the ability to attract new patients easily have instituted “critical pathways” – i.e., management of standardized work processes -- for each disease. As a result, they have been able to reduce average length of stay by 60%. In most cases, the problem is not that critical paths and other operational improvements are difficult to make. Japanese hospitals have just shown very little interest in making them.

In this section, we have examined the reasons behind low productivity in domestic sectors at the production process level. In the next two sections, we seek to understand why these processes remain unproductive. The first section examines the low competitive intensity of the domestic sectors and the second evaluates the key external factors that shape root economic incentives. Specifically, we seek to understand why low-scale operators with weak product offerings and insufficient organizational skills remain in the market place.

## **LITTLE NATIONWIDE OR FOREIGN COMPETITION WITHIN DOMESTIC SECTORS**

Since some larger operators with strong product offerings and organizational skills exist (or could in theory enter the market), why have they not expanded their share further and driven the unproductive players out of the market?

Competitive forces are extremely weak in domestic sectors. The market share of productive national players is low and static. Most small local players are thus shielded from competition with productive national players. Foreign entrants are marginal. Intense price competition is rare. In sum, domestic sectors lack the competitive dynamics to force unproductive operators to improve or exit the market.

### **Weak domestic competitive intensity**

Domestic competitive intensity is low in all four sectors studied. Small local operations account for at least half of, and in most cases almost all, employment. The market share of productive large-scale players is low and stagnant. Price competition is rare in residential construction, and completely absent in health care.

- ¶ **Retail.** When in direct competition, large-scale retailers (supermarkets and hypermarkets) drive most mom-and-pops out of the market with wider product choice and lower prices. However, there are not enough large-scale retailers in Japan to pressure unproductive traditional stores to exit or evolve. As a result, mom-and-pops still account for 30% of retail sales and 55% of employment. Market share of large-scale stores in Japan is low at 20%, compared with 39% in the US. The gap is even wider in food retailing, where the share of large-scale stores is 39%, compared with 71% in the US, 66% in the UK and 70% in France.

Within the large-scale store category, national chains collectively hold only a 5% share of the market in Japan. This situation stands in stark contrast with that in the US, where Wal-Mart alone holds a 9% market share. In addition, the market shares of national retailers have remained almost unchanged for 15 years in Japan, while dynamic shifts have occurred in the US (Exhibit 18). Furthermore, national retailers in Japan operate multiple competing formats, thereby creating internal conflicts of interest, which in turn hamper competition. In contrast, best practice US and European operators focus on and compete in one format.

- ¶ **Food processing.** Japan has only a handful of national processed food companies. These processors sell their products to an equally small number of national retailers. For example, in the milk segment, large retailers prefer to deal with a few large processors who provide high quality branded milk, instead of dealing with multiple small local

processors who provide lower quality non-branded milk. Since the price of branded milk (from large processors) sold by large retailers is 20% cheaper than non-branded milk (from small processors) sold by mom-and-pops, large retailers are the most competitive channel for selling milk. However, mom-and-pops can survive selling their more expensive lower quality milk because the share of large retailers is low in Japan. Large processors do not go after the mom-and-pop channel because they would have to rely on local wholesalers to reach local markets, which would put them at a cost disadvantage against local small processors who deliver direct to the stores. A similar pattern of local processors selling to local retailers holds across a large majority of food processing segments. In addition to having low competitive intensity among existing players, there is no active consolidation or new entry in the industry. In contrast, large national food processors in France, Germany, the UK and the US compete nationally to supply equally large national retailers. They actively acquire other companies and consolidate production facilities to achieve greater scale.

- ¶ **Residential construction.** The residential construction industry in Japan is quite static – the shares of different housing types have been quite constant over time and the shares of particular producers roughly constant. For example, the share of the “Big 8” prefab producers has remained at about 15% for 15 years. Competition in this industry generally takes place within small regional markets. In Japan, this competition is based not on price but on product offerings, servicing and reputation (Exhibit 19). Some of the large producers themselves admit that they charge customers according to their income, suggesting that they enjoy higher profitability from the price umbrella offered by unproductive players.
- ¶ **Health care.** Healthcare is a complex system composed of three principle markets. In Japan, the law prohibits competition in two of these markets: the market for health insurance (between consumers and payors) and the market for healthcare provision (between payors and providers). As a result, the pressure to improve productivity that competition provides is completely absent in these markets, contributing to many of the inefficiencies observed. Although competition exists in the third market between providers and patients, patients are forced to choose between two sub-optimal segments: the high-technology but low-service segment (public and university hospitals) versus the low-technology, medium-service segment (private hospitals). Patients with even minor ailments crowd into the high-tech centers because these centers cost no more than the low-tech centers. As a result, these hospitals are always full to capacity and do not face any real competition that would force efficiency or service level improvements.

## **Exposure to global best practice**

Exposure to global best practice, whether trade or foreign direct investment (FDI), is very low in domestic sectors. While some foreign best-practice players compete in retail and food processing, they are marginal. The residential construction and health care industries have little exposure to world best practice. The lack of exposure to competition from foreign players exacerbates the low domestic competitive intensity.

- ¶ **Retail.** Of the 91 foreign retail entries into Japan since 1962, 77 occurred in the 1990s. However, apart from Toys'R'Us, which has gained a 10% market share in the toy market, they typically have a market share of less than 1% in each category (Exhibit 20). Lack of exposure to foreign best practice is serious, especially in food retailing. The first large-scale foreign food retailer, the US wholesale club Costco, opened its store in 1999, followed by the French hypermarket chain Carrefour in 2000. Combined, these multinationals operate only a few stores.
- ¶ **Food processing.** Commodity food is the only segment subject to import pressures (Exhibit 21). FDI is significant only in limited product categories, such as soluble coffee. Even the largest FDI producer, Nestlé, ranks only 21<sup>st</sup> in the Japanese market.
- ¶ **Residential construction.** US and Canadian residential construction firms have experimented with exporting two-by-four houses or building them in Japan. These experiments have been mostly unsuccessful to date. Only 1% of new houses was imported in 1998, and the share of foreign builders remains negligible.
- ¶ **Health care.** In all countries, the provision of health services is a domestic industry. Japan is no different. In fact, apart from a handful of clinics for foreigners, there are no international hospitals or clinics in Japan. Nor are there any foreign payors.

As we have seen, the low competitive intensity of domestic industries allows unproductive local operations to stay in business, thus reducing overall productivity. In the next section, we review the external factors that lead to this low competitive intensity and unproductive production processes.

## **PRODUCT, LAND AND CAPITAL MARKET DISTORTIONS STIFLE COMPETITION AND HAMPER PRODUCTIVITY**

Distortions in the product, land and capital markets, in that order, are responsible for the lack of competition and unproductive production processes.

We have observed that in Japanese domestic sectors these distortions can be further sub-divided into the following three categories:

- ¶ Entry barriers (companies or products/services)
- ¶ Exit barriers and subsidies for unproductive players
- ¶ Lack of price and product information for the buyer

Together, these three distortions severely limit market mechanisms and competition in domestic sectors. Many of the distortions have been introduced in recent years. Exhibit 22 summarizes market distortions by industry. Exhibit 23 is a summary of distortions by type and market affected.

Interestingly, we did not find that the labor market, consumer preference, troubled banks or macroeconomic factors were important in explaining the low productivity of domestic sectors in Japan, as we will explain later.

### **Product market distortions**

Product market distortions exist in all the industries studied. Entry barriers and lack of price and product quality information distort product markets in Japan.

- ¶ **Retail.** In recent years, entry and exit barriers in the retail industry have become higher, thus preventing the industry from moving toward a more productive format mix.

- *Large Scale Retail (Location) Law:* High throughput allows large-scale retail formats, such as hypermarkets and category killers, to achieve low costs and intensify price competition in the retail market. In Japan, the market share of such formats is negligible because the Large Scale Retail Law limited the entry of stores larger than 1,000 square meters until 2000. Despite some relaxation of the law in the early 1980s, mom-and-pop store owners who served on the approval committee had the right to veto the entry of more productive stores into their neighborhoods.

This law will be replaced by the Large Scale Retail Location Law, in June 2000 (Exhibit 24). Again, stores over 1,000 square meters will need to be approved subject to opinion papers submitted by local mom-and-pops. The difference is that instead of directly limiting large stores as did the Large Scale Retail Law, the new Large Scale Retail Location Law will indirectly limit their entry through “social” screening criteria related to the environment (e.g., traffic, noise and trash levels). By nature, these social criteria are difficult to enforce objectively. As a result, the countries that have adopted them (e.g., the UK and Germany) have encountered a rapid decline in the rate of large store penetration. A blatant entry barrier has simply been

replaced with one that is trickier under the guise of environmental protection.

The other complication of the new law is that the final decision-making body for appeals has been transferred from the central government to prefectural governments. Since prefectural governments receive most of their funding from the center and receive only 10% of their revenues on taxes from local businesses, they have little incentive to fight the local mom-and-pop lobby and attract large-scale stores. In addition, although newly-developed suburban “bed towns” would be likely candidates for attracting large-scale stores, if the decision-making unit is as big as a prefecture, there are bound to be stores in the prefecture that would oppose the entry.

- *Town Center Revitalization Law*: Enacted in 1998, this law provides for a budget of one trillion yen a year to subsidize small stores in town centers. For example, this budget covers the free construction of what will be high-revenue parking spaces in the center of Tokyo. It also subsidizes improvements in pavements and other constructions that make shopping streets (“shotengai”) more attractive.

¶ **Food processing.** The root cause of low productivity - low-scale, lack of technology and product proliferation - for non-commodities lies in the lack of consolidation in the retailing industry. As stated earlier, apart from a few national food processors that supply the small number of national retailers, food processors are local players and supply mostly to local retailers. Since local retailers are small, the food processors that supply them have little incentive to become larger (as discussed in the section on domestic competitive intensity). As a result, large processors cannot grow and thus do not invest in new technology. Retail fragmentation also encourages product proliferation in two ways. First, since nationwide marketing that targets the “average” consumer is less effective for fragmented retailers (who each face different local clientele), food processors are encouraged to test their products in actual stores. Second, without retail consolidation, the share of best-practice retailers who can narrow their product range is low (with 10,000 dry grocery items, best-practice retailers achieve the same sales as mediocre retailers who stock 16,000 items). For commodities, tariffs and quotas continue to restrict imports, such as flour and processed meat and frozen vegetables. As a result, the productivity of these products is lower than that of less protected products (Exhibit 25). If these import restrictions were removed, the productivity of commodities (currently at 60% of the US figure) would catch up with that of the US.

¶ **Residential construction.** Low productivity in residential construction is primarily due to the lack of price-based competition and

the lack of standardized construction methods and materials. Price competition for new housing is impeded by an underdeveloped secondary market (Exhibit 26), the lack of large scale SFH and the lack of suitable MFH, which could all provide cheaper alternatives to new housing. The lack of standardization is largely a result of the lack of government involvement. We have found various other regulations to be marginally important.

- *Lack of a price based competition.*
  - The secondary market is underdeveloped owing mostly to the lack of price and quality information, and to financial disincentives (discussed in the land and capital market sections). The government in Japan does not publicly disclose house sales price information. In addition, there is no widely accepted government sponsored method of appraisal. As a result, it is very difficult for consumers to accurately assess housing values or gauge the fairness of a particular price. This creates a “lemons” problem in which buyers shy away from the market because only those with sub-quality products (who can profit even with a low price) are willing to sell their houses.
  - Lack of large scale SFH. Being potentially much cheaper to build houses in large scale developments, this segment would also put pressure on the market thereby inducing price competition. Product market distortions which prevent diffusion of this segment are the urban development law and the large scale retail law. The urban development law makes it hard to accumulate large land plots from fragmented owners. The large scale retail law is a barrier to the development of edge cities where large scale housing developments are likely to occur.
  - Lack of suitable MFH. Increasing the supply of MFH could further spur price competition in the market. The combination of expensive land with unproductive builders of single family houses should have opened the door wide for productive large scale MFH. However, two external factors have hindered development of this market. Large rental apartments are not readily available due to the land and building lease law. Although this law has recently been changed, strict zoning codes will continue to limit the supply of floor space and maintain the high cost of housing.
- *Lack of government intervention to encourage standardization:* Standardization facilitates the diffusion of best practice across an industry. While government-led standardization in construction methods has resulted in substantial benefits in the US, such

standardization is unlikely to be introduced in Japan. This is because the housing construction market lacks any of the key factors that generally encourage standardization -- few large players on the demand or supply side and/or powerful network effects. Indeed, the Japanese housing industry is localized and fragmented, with a large number of entrenched players who make it difficult for a standard to emerge on its own despite the potential for substantial cost savings through coordination on materials, design and construction methods. Intervention of a body such as the GHLC may be the only way to quickly introduce standardization into the market.

Japan has been successful in imposing standards in other markets. From the 1950s to 1970s, the Japanese government encouraged industry consolidation and product standardization in the machine tool industry. This resulted in a fiercely competitive industry with standardized products in Japan. On the contrary, the US machine tool industry remained characterized by numerous standards. As a result, even today, the US machine tool industry continues to suffer a 20% productivity penalty versus that in Japan.

- *Other product market regulations:* Building codes have hampered the productivity of the residential construction industry in the past, but these are about to be changed. The technical standards for ensuring the structural safety, fire resistance and environmental sanitation of buildings were prescriptive of the materials to be used, as opposed to being performance based. Prescriptive standards discriminated against imported materials and discouraged innovation.

¶ **Health care.** Inefficiency (productivity issue) and lack of services (output issue) in the Japanese health care industry are caused by the reimbursement method, weak payors and the lack of an effective accreditation system, in that order of importance.

- *Reimbursement method:* The long length of hospital stays, overusage of prescription drugs and low service levels that hamper health care productivity are all driven by the reimbursement system. A hospital is reimbursed approximately 5,000 yen per patient day – above the marginal cost of a patient stay -- with no cut-off in terms of the number of days. The obvious incentive for underutilized hospitals is to increase the length of stay (Exhibit 27). This situation stands in sharp contrast to that in the US where a lump sum reimbursement is made for a particular disease (DRG method) or payors monitor care decisions carefully. Since the revenue is capped in the US, hospitals have a strong incentive to minimize length of stay. The reimbursement levels are too low to allow many Japanese hospitals to invest in the information technology needed to capture patient information in the first place. However, even if hospitals invest in

information technology they are prevented from advertising, and therefore cannot promote better health care provision – whether shorter lengths of stay, higher service levels or better treatment outcomes.

The service level in Japan is lower than that in the US partly because the reimbursement level is not very high, but also because the long length of stay increases the cost for the patient per stay. Although private rooms are available at a personal cost, most patients cannot afford to use them for the duration of a lengthy stay. When a best-practice hospital reduced its average length of stay to 15 days (as opposed to the Japanese average of 43 days), its private room usage increased to the point that its private room service now accounts for 30% of profit.

- *Lack of payor pressure:* Payors play a much more passive role in the Japanese health care system than in the US and German systems. The result has been less pressure for improvement and less information disclosure from the providers. Since US consumers are free to choose their payors, and since the majority of payors are private (except for Medicare and Medicaid), payors actively compete with each other for members. They make money by closely supervising the actions of hospitals and forcing them to be both productive and honest. They also play an active role in forcing the collection of cost and sometimes outcome data. The data is used to monitor provider performance and to communicate the strong performance of affiliated providers to customers. Many providers gather data on their own initiative (e.g., on patient satisfaction, outcome data on procedures) since they need to compete for payors. In addition, Medicare requires all health care providers to submit their claims online, thereby creating a wealth of provider information that they make public. The German payor system, while being closer to the Japanese system, is also much more active. German payors demand performance data from providers, benchmark providers, and set reimbursement rates that push underperformers to improve.
- *Lack of an effective accreditation system:* In the US, independent accreditation and licensing organizations, with the government's support, have played a crucial role in ensuring and disclosing uniform high quality among hospitals, clinics and doctors. The US Joint Commission on the Accreditation of Health Care Organizations (JCAHO) has existed for 70 years as an independent, non-profit organization with the express purpose of monitoring and accrediting the operational performance of healthcare providers, from hospitals to clinics and even clinical laboratories. To maintain JCAHO accreditation, hospitals must undergo extensive on-site reviews of

their operational performance by multi-disciplinary committees, including physicians, nurses, hospital administrators and healthcare policymakers.

In Japan, the MHW maintains some regulations and guidelines for the hospital sector. These regulations, however, are superficial in nature and do not delve into a hospital's operational performance. The main requirements pertain to necessary staffing levels and sanitation requirements, such as the disposal of medical waste. Theoretically, if hospitals fail to meet these requirements, they can be closed by the MHW. However, the MHW does not have the staff needed to monitor hospitals and clinics in a meaningful way. In fact, according to recent estimates, as many as 40% of Japan's hospitals fall below the MHW's required nurse-patient ratios.

As a result, any doctor can open and operate a hospital with minimal scrutiny of operational performance and disease outcome by the MHW, Japanese payors or independent evaluators. As such, it is no wonder that Japanese patients are concerned that the quality of hospitals is not uniformly high. In the US, on the other hand, patients have more confidence in the uniformly high quality of hospitals. As a result, they routinely choose the hospital that is most convenient to them rather than crowding into the most prestigious academic medical center within driving distance. The lack of an effective accreditation system thus reduces competitive pressure for subsidized hospitals which don't need to improve performance to attract customers. This leads to low productivity and less output (services).

## **Land market and tax distortions related to land**

Although land is a scarce resource in large cities, some blocks of undeveloped land are available even in the metropolitan areas, and the potential for better utilization of land already developed is high. Efficient allocation of this resource is hampered by regulations and taxes that limit the efforts of productive enterprises to obtain land and/or discourage unproductive enterprises from releasing their land. This issue is particularly pertinent for retail (and thus indirectly for food processing) and residential construction.

¶ **Retail.** In retailing, land-related tax incentives act as exit barriers for mom-and-pops. In addition, the de facto consensus required among residents by the Urban Development Law constrains large-scale developments in city centers.

- *Land-related tax incentives as exit barriers for mom-and-pops:* Land-related tax incentives are an exit barrier for traditional players. The low property tax imposes little pressure to exit, while the high

capital gains tax deters the sale of land and inheritance tax deductions make it preferable to hold onto land.

Exhibit 28 shows the NPV calculations on land-related taxes for a typical mom-and-pop store in Japan and the US. The calculation confirms two conclusions for mom-and-pops: 1) the cost of holding land is low; and 2) land is more tax efficient than other financial instruments.

We calculated the NPV of the property tax, capital gains tax, and inheritance tax for the following two scenarios:

- Scenario 1: A mom-and-pop holds the land and store for 25 years. When the owner dies, the spouse and two children inherit the land and store.
- Scenario 2: A mom-and-pop store owner sells the land and store (for cash) in year 25. When the owner dies later in year 25, the spouse and two children inherit the cash proceeds from the sale of the land and store.

A comparison of NPVs under scenario 1 in Japan and the US shows that the cost of holding land in Japan is only about one fifth that in the US, due to the low property tax. Inheritance tax is not a differentiating factor in this comparison because for an asset of this size, the beneficiaries are exempt from the inheritance tax in both Japan and the US.

When we compare scenarios 1 and 2, land is a more tax efficient financial tool than holding cash in both countries. However, land is even more tax efficient in Japan, as the magnitude of difference is larger in Japan at 300%, versus only 48% in the US. In the US, only the portion of the land on which the owner operates a business incurs a capital gains tax, while the residential portion is exempt. However in Japan, the capital gains tax is levied on both the business and residential portions of the land. Actually, the tax levied on the business portion is lower in Japan, but the tax on the residential portion pushes the total capital gains tax above that of the US. The inheritance tax is also a differentiating factor: in the US beneficiaries are exempt from the tax whether they inherit in the form of land or cash, while in Japan they are only exempt when they inherit in the form of land.

Following is a detailed discussion of each of the land-related taxes:

- *Low Property tax*: The average effective property tax rate for mom-and-pops is estimated to be 0.3% in Japan, compared with an average of 1.7% in the US. With a very low property tax,

mom-and-pops in Japan face little pressure to exit even if they are unproductive. If property tax were increased to US levels, approximately 65% of an average mom-and-pop's cash flow would go to paying property tax.

- *High capital gains tax*: The maximum rate for the national capital gains tax for land in Japan is 40%, compared to 20% in the US. The high tax rate discourages transactions, thereby further reducing the supply of land.
- *Inheritance tax*: For land only, there is a special provision that allows small-scale land owners to deduct 80% of the value from the taxable amount. Many Japanese mom-and-pops qualify for this special provision (privately-owned commercial property below 330 square meters). Land, therefore, becomes the most tax-efficient asset for inheritance. As a result, many mom-and-pops hold onto land and store. The deduction was 40-50% until 1999 when it was increased to the current 80%. Meanwhile in the US, there is no such special deduction that applies only to land within inheritance tax.
- *Urban Development Law*: The current Urban Development Law stipulates that the local government “can” give approval for large-scale developments (e.g., large shopping malls) in urban areas if two thirds of local residents agree. In practice, though, the local government does not give approval unless a consensus is reached. Unless the law states that the local government “must” approve if two thirds of local residents agree, large projects will be stalled for decades.

¶ **Residential construction.** Residential construction occupies more land, and thus land issues affect this industry more acutely than retail construction. Ample land could be obtained for residential construction in metropolitan regions if it were permissible to convert agricultural land there for such use. Land market regulations affect the residential construction industry in two ways. First, tax incentives both limit the supply of land on which housing can be built as well as constraining the secondary housing market. Second, zoning laws restrict the scale of MFH that can be built on a particular land plot.

- *Tax incentives*: The high capital gains tax and high transaction taxes deter ownership of multiple houses in a lifetime, thereby constraining the secondary market. As in retail, the special treatment of land for inheritance purposes and the low property tax restrict liquidity in the property market, thereby making land acquisition difficult for large-scale developers. In addition, agricultural land, on which large-scale development could be

conducted, receives a variety of preferential tax treatments that deter sale to a developer. In the Tokyo Metropolitan area -- comprising Tokyo, Kanagawa, Chiba and Saitama Prefectures -- 19% of land is still used for agricultural purposes (Exhibit 29).

- *Zoning laws:* High-rise multi-family housing is difficult to build in Japan because of various zoning codes, such as floor area ratios, building coverage ratios and sunshine laws that restrict the height and shape of buildings. The average number of floors for buildings in Tokyo is 2.3 – far below that of major cities around the world – due to these zoning codes.

## **Capital market distortions**

Capital market distortions hamper productivity in retail, residential construction and health care industries.

- ¶ **Retail.** There are three capital market exit barriers in the retail industry, one affecting mom-and-pops and two affecting debt-ridden retail conglomerates. The exit barrier for mom-and-pops is far more important than that for debt-ridden retail conglomerates. Since the productivity of the handful of retail conglomerates is already quite high (around 80% that in the US) and since their share of total employment is so low (around 2%), the impact of restructuring on the overall industry is limited. On the other hand, format mix change from mom-and-pops (with productivity at 19% of the US average and accounting for over half the employment) to more productive formats will have a large impact.
- *Government loan guarantees:* Since 1998, the government has provided thirty trillion yen in loan guarantees to small businesses with almost no credit evaluation. Small retailers (mom-and-pops) account for 13%, or 4 trillion yen, of this windfall. By providing loans preferentially to small retailers, the government is slowing the exit of unproductive retailers. Some people argue that the exit of mom-and-pops is not important as long as the Large Scale Retail Location Law is repealed and the market share of small stores declines. However, from a political-economy perspective, the Large Scale Retail Location Law will not be repealed if local mom-and-pops (which lobby for the law and sit on the evaluation committee) do not exit. Therefore, the removal of the government loan guarantee is important.
- *Continued lending to troubled retailers:* The government has indirectly kept large debt-ridden retail groups afloat by protecting the banking sector. Banks have increased their lending to sectors with bad debt

problems – mainly construction, real estate and retailing, all of which invested in land during the bubble economy. Within retailing, banks have increased their lending to debt-ridden retail groups (Exhibits 30 and 31). However, the banks would have no choice but to collect if the government did not support them through unlimited deposit guarantees and re-capitalization. If banks with substantial bad debt went bankrupt and their assets were sold off, many retail groups would be on the market for more productive domestic and foreign retailers to purchase. Greater competition among banks will force them to adopt better credit skills, relying less on land-based collateral and valuing businesses and land through discounted cashflows.

Recent events – Nagasakiya filing for bankruptcy filing and Sogo announcing that it would write off debt and restructure – suggest that capital market pressure has finally started to affect debt-ridden retailers. However, such restructuring would have occurred much earlier and on a larger scale had the banks not been protected.

However, as discussed above, the impact of restructuring large retail conglomerates – even considering the increased competition it will bring to surrounding stores -- is limited. Indeed much greater impact would result from the exit of mom-and-pops or the entry of large-scale retailers on new sites.

- *Direct lending by state banks:* The government-owned Development Bank of Japan has started directly supporting large debt-ridden retail groups in recent years. This lending helps keep these groups from bankruptcy and thus hampers “restructuring from the outside”, which is typically more radical in nature than “restructuring from within” the company.

¶ **Residential construction.** The Government Housing Loan Corporation, which provides mortgages for 32% of new construction, discriminates against used homes. Ninety-six percent of their loans are for new homes, although around 20% of houses sold are used. In addition, their terms for used homes are much less attractive. This behavior constrains the growth of the secondary housing market, a critical input to price competition.

¶ **Health care.** Government subsidies to public-sector and university hospitals create a non-level playing field among hospitals that reduces competitive intensity and leads to less efficiency and lower service levels. In addition, hospital ownership restrictions have hampered the diffusion of best management practices throughout the industry.

- *Government subsidies:* Government subsidies to finance capital expenditures or fund operations allow public-sector and university

hospitals to dominate high-technology care. These hospitals also receive indirect subsidies in the form of property tax breaks. In Tokyo, the total level of subsidies, direct and indirect, can be as high as \$4000 per bed, per month. Since reimbursement levels are set below marginal cost for many high-end procedures, most hospitals have a difficult time making money by practicing high-tech medicine. To compensate for the limitations that low reimbursement rates place on high-tech medicine, the government pays subsidies to public and university hospitals to allow them at least to remain close to the cutting edge of technology. Higher levels of technology allow these hospitals daily to attract thousands of outpatients who associate high technology with better outcomes, even for primary care. In this way, government subsidies distort competition among providers by giving subsidized hospitals an insurmountable technological edge over most private hospitals, thereby removing the competitive pressures that would force them to care about and improve their service levels. These hospitals represent roughly 20% of the hospital sector in Japan.

- *Hospital ownership restrictions:* Currently government restrictions require doctor ownership and management of hospitals and forbid investor-owned, for-profit hospitals. While the US experience suggests that hospitals do not have to be investor-owned or be for-profit in order to be efficient, the current ownership restrictions in Japan certainly have not helped efficiency improvements. These restrictions have contributed to the poor management skills in Japanese hospitals.

### **External factors which were not important**

Interestingly, we did not find that the labor market, consumer preference, the troubled banking sector or macro factors were important in explaining Japan's low productivity.

- ¶ **Labor market issues.** Addressing labor market issues in residential construction is a nice to have, but not necessary. In health care, labor market issues affect productivity, but not in any major sense. Labor market distortions were not important in retailing or food processing.
- *Residential construction:* There is no national accreditation system for builders in Japan. Although a system for nationwide training exists in the US, only 10% of US workers receive this accreditation (through union associations). In addition, labor accreditation appeared long after building methods were standardized. Labor accreditation is, therefore, nice to have but not essential for standardization and better management.

- *Health care:* In Japan, medical schools control the supply of hospital doctors. When a hospital needs a doctor, they must appeal to a medical school to transfer someone to their hospital. As a result, hospital physicians are more loyal to their medical school professors than to the hospital where they work and hospital administrators have difficulty convincing them to accept efficiency improvements or incentive-based pay. These labor market irregularities explain some of the inefficiencies and service problems we have observed in Japan.

¶ **Consumer preference.** Some argue that the Japanese do not react to low prices and that their idiosyncratic tastes negatively affect productivity. We did not find this to be the case. When a reasonably priced, superior product is made available, consumers react en masse. For example, when clothes manufacturer Uniqlo managed to reduce the price of its fleece jacket by half and focused its marketing efforts to sell the jacket, it sold 8 million jackets in one season. The number of Uniqlo stores has increased three-fold in the past five years, making it the largest casual wear retailer in Japan (Exhibit 32). During the last decade, Toys'R'Us became Japan's largest toy manufacturer owing to its low prices. The problem is that barriers in product, land and capital markets hamper the expansion of such productive players. Consumers cannot buy things that are not offered, and what is offered is not desirable. The problem is on the supply-side, not the demand-side. Some people also argue that particular Japanese tastes, such as an obsession with freshness and product variety, hamper productivity. However, taking the milk-processing example, even with just-in-time delivery to maximize freshness, the top three manufacturers' productivity is already at par with the US. Milk processing productivity is low in Japan because there are too many sub-scale milk processors (that survive because they are not subject to pressure from large processors or large retail chains; see Food Processing Case for details), not because Japanese consumers demand freshness. France can be a model for what Japanese food processors may become once higher productivity is achieved. The French food processing industry has two clear segments: the large-scale mass producers; and the high-quality, niche producers. The small food processors that have survived competition from large, world-class manufacturers are equally productive, producing a small amount of high value-added products at high productivity.

Japan today has many mediocre food processors who are too small to enjoy scale benefits but not sufficiently differentiated. Retail consolidation and the resulting competitive pressures will force food processors to improve their productivity by pursuing scale or niche

markets. The problem, again, is not with the consumers, but with the producers.

- ¶ **Troubled banks.** The only evidence of the troubled banking sector lowering sector productivity is in its continued lending to debt-ridden large retail groups. However, as discussed in the retail section of “Capital Market Distortions”, this barrier was of secondary important – and much less important than other barriers in retail. Once other barriers are removed, the banking sector might play a more active role in enforcing discipline for exit (especially if they can build credit evaluation skills and move away from collateral-based lending). However, our microeconomic analyses indicate that sorting out the troubled banking sector is not a priority in terms of improving Japanese productivity and GDP per capita.
- ¶ **Macro factors.** Productivity in domestic sectors studied was low, but not because of macro issues. Unlike traded sectors, domestic sectors are little affected by exchange rates. Interest rates in Japan are at historically low levels and do not hamper investment. Japanese savings and investment levels are still high, and any investment that is not made is because of slow growth expectations. These slow growth expectations, in turn, are caused by the micro market distortions studied in this report.

### **External factors: domestic sectors versus global manufacturing sectors**

Interestingly, whereas unproductive domestic sectors are weak, the productive global manufacturing sectors are strong. Past research on global manufacturing sectors – i.e., auto, consumer electronics, steel and machine tools – reveals several characteristics that are key sources of strength and higher productivity. These lie in their scale, strong product development skills and world-class operations at the production process level; extremely high domestic and global competitive intensity at the industry level; and low market restrictions at the external level<sup>4</sup>. Interestingly, these characteristics are precisely the opposite of those of domestic sectors.

In fact, in other countries, the productivity of these global manufacturing sectors lags that of Japan because they suffer from exactly the same issues as the domestic sectors in Japan. For example, the labor productivity of the UK auto industry is only 49% that in Japan because of very weak operational skills shielded by import barriers and government subsidies<sup>5</sup>.

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<sup>4</sup> “Manufacturing Productivity” (1993), McKinsey Global Institute

<sup>5</sup> “Driving Productivity and Growth in the U.K. Economy” (1998), McKinsey Global Institute

Japan needs to extend the application of the very principles that allowed its global manufacturing sectors to become productive into its domestic sectors.

## **POLICIES FOR GROWTH**

To remove barriers to growth in domestic sectors, the government needs to deeply reform the domestic sectors. Based on our sector sample there are three types of reforms that should be undertaken (Exhibit 33).

- ¶ *To remove exit barriers: Provide incentives to exit and support the unemployed in transition.* When unproductive firms are protected and subsidized, the result is a non-level playing field that distorts competition. In addition, lobby groups of unproductive players use political pressure to enact entry barriers, further reducing competitive intensity.

Instead of supporting unproductive firms, the government should provide incentives for their exit and support individuals. In retail, for example, land-related taxes should be reformed (reduce capital gains tax, increase property tax and eliminate the special deduction for land in inheritance tax) to provide incentives for unproductive stores to exit. For example, mom and pops on average own property worth 50 million yen which they would be prompted to turn into cash if the capital gains tax were (temporarily) reduced to facilitate their exit.

The government should make a concerted effort to protect individuals during the transition period when job destruction increases and is not simultaneously matched with job creation from reform (see Employment Outlook section below). Unemployment benefits in Japan are at about the same level than the US (Exhibit 34) but may need to be temporarily extended in duration during this transition period.

Interestingly, the number of people in our cases who will be in desperate conditions from long-term unemployment is expected to be low. There are three reasons for this. First, as we will illustrate in the Employment Outlook section, we expect job creation to almost match job destruction over the 10 year period. Second, many who lose jobs as a result of shutdowns can retire and receive pensions; the share of the population over 65 will increase from 17% today to 22% in 2010. Third, many others (e.g. a large majority of mom and pops) have assets that they can convert into cash and live on (if the proper exit incentives are in place). For example, mom-and-pops on average own land worth 50 million yen.

- ¶ *Deregulation for entry barriers:* Many laws and regulations prevent the entry of productive companies or the introduction of better products in

domestic markets. Of the 12 market distortions listed in Exhibit 23, five were in this category (the Large Scale Retail Location Law, tariffs, reimbursement system, Urban Development Law, zoning codes). By stifling innovation, these entry barriers cap the potential for productivity growth. These laws and regulations need to be removed.

- ¶ *Market- enabling interventions for market failures:* Deregulation alone may not stimulate sufficient competition and innovation. Domestic sectors are plagued with market failures that require active interventions by the government. We found severe market distortions in residential construction and health care. Without market-enabling interventions, builders will not adopt an open standard, price information for homes sold will not be released, proper appraisal for secondary houses will not emerge, and hospitals will not disclose outcome data. The government needs to see its role as an enabler of the market mechanism.

Piecemeal reforms will not work. As illustrated by case studies in this report, market distortions are systemic. For example, in retailing, the removal of exit barriers will be ineffective in increasing the presence of large-scale retailers unless entry barriers are removed at the same time. On the other hand, if entry barriers for large scale are removed but exit barriers for traditionals are maintained the result will be little change in sector wide productivity. In residential construction, price and product quality information (appraisal through the GHLC) should be made available simultaneously if the secondary market is to develop rapidly.

The areas of reform can cross many markets and ministries, even for one sector. For example, reform of the residential construction industry would encompass the product market (standardization and appraisal), the land market (taxes and zoning) and the capital market (GHLC). The ministries involved would include the Ministry of International Trade and Industry, the Ministry of Construction and the Ministry of Finance. Strong coordination across ministries, such as that provided by Housing and Urban Affairs in the US government, would be needed to implement change.

Despite the practical difficulty of reform, the challenge is to reform as many sectors as possible simultaneously. By doing so, overall economic growth would be enhanced by spillovers. For example, reform of the retail sector would lead to reform of the food processing sector, as already discussed. The resulting reduction in the price of food would allow people to spend more on other goods (for example, houses and health care) – thereby increasing output in other sectors and the overall economy.

## **SIZE OF THE PRIZE**

The size of the prize for reform is large. The Japanese economy has the potential to grow its GDP per capita by 4% over the next 10 years if all the barriers identified are removed.

### **Productivity growth potential**

If the market distortions identified in the cases were removed, we estimate that productivity growth potential would be 6.3% (Exhibit 35). Needless to say, this is far above the productivity growth rate of the 1990s (1.2%) or the potential given no reform (1.5%) for the cases. Given the higher productivity of the overall domestic sector (63%) compared to that of the three sectors analyzed for the estimate (47%), applying the same growth rate to the latter would be an overestimate. We therefore make a conservative assumption that the overall domestic sector will reach the US productivity of today 10 years from now. This generalization translates into a productivity growth rate of 4.7% for the overall domestic sector.

### **Output growth potential**

With Japan's demographic trends, labor inputs are expected to decline by 0.5% per year between 2000 and 2010. When this is combined with the labor productivity growth potential of 4.7%, the output growth potential becomes 4.2%. That is to say that Japanese GDP per capita has a 4.2% growth potential (given accommodating monetary policies and capital investment). The 4.2% growth in GDP per capita comes from a fundamental increase in the productive potential of the economy, as opposed to macroeconomic adjustment in its (cyclical) capacity utilization (Exhibit 36). Since the impact of the latter is smaller policy makers should focus on the structural reforms identified in this study to realize the 4.2%.

Some may wonder whether output can grow by so much. Even if productivity improvements lead to lower prices and better products, what more would the Japanese consume? The answer is that they would consume more of many products. At higher income levels (which is equal, in effect, to lower prices) the Japanese consume more clothes, cars, publications, restaurants, hotels and recreational equipment (Exhibit 37). Looking across countries, the Japanese consume only two-thirds in terms of clothing and cars, half in terms of publications, restaurants and hotels, and a third in terms of recreational equipment of that which Americans consume (Exhibit 38). From our case studies, we also know that consumption is constrained by: high prices (all cases), weak products (retail and food processing), unavailability of products (health care) and the need to save more (residential construction). However, once productivity improves and better products are made available cheaply, Japanese consumers

will react en masse (e.g., Uniqlo, Toys'R'Us). The potential for more consumption is definitely high given productivity improvements.

## **Employment outlook**

With output growth potential to match the productivity growth potential, the overall employment would remain constant. Unemployment should come down since labor inputs will decline as the population ages over the next decade.

As Exhibit 39 illustrates for the sectors we studied, the net effect of a 5.5% increase in productivity on employment is neutral (no additional unemployment). Due to higher competitive intensity there will be higher levels of job destruction but this will be offset by equally high levels of job creation. For example, healthcare alone can create over one million jobs even after inefficiencies are removed, offsetting the reductions in retail, food and housing employment (Exhibit 40). Because reforms in these sectors have been overdue, the initial displacement from restructuring will be high and therefore the government should consider temporarily extending unemployment benefits to provide enough security until people can find their next job. However, as mentioned earlier, we expect the job creation (as in health care) to match the job destruction over the long run. Refer to Appendix A for assumptions behind these calculations.

For specific individuals, the transition required during reform could be painful. People in Japan, of all developed countries, should be most familiar with such pains – the Japanese economy in the post-war period underwent the fastest shift from a society where almost half the people were employed in agriculture to one with a large manufacturing sector, to one that is service dominated (Exhibit 41). The perception of a less mobile society for Japan is a myth. This transition – like the ones before – will be painful but necessary to adapt, evolve and grow. The introduction of a universal social system will help make the transition less painful. Increased GDP per capita from reform will help finance such social systems.

After ten years of stagnation, bold steps are necessary to reform the domestic sectors and put the Japanese economy on an accelerated growth path. The size of the prize warrants the courage.

# Appendix A

## **Employment change estimates**

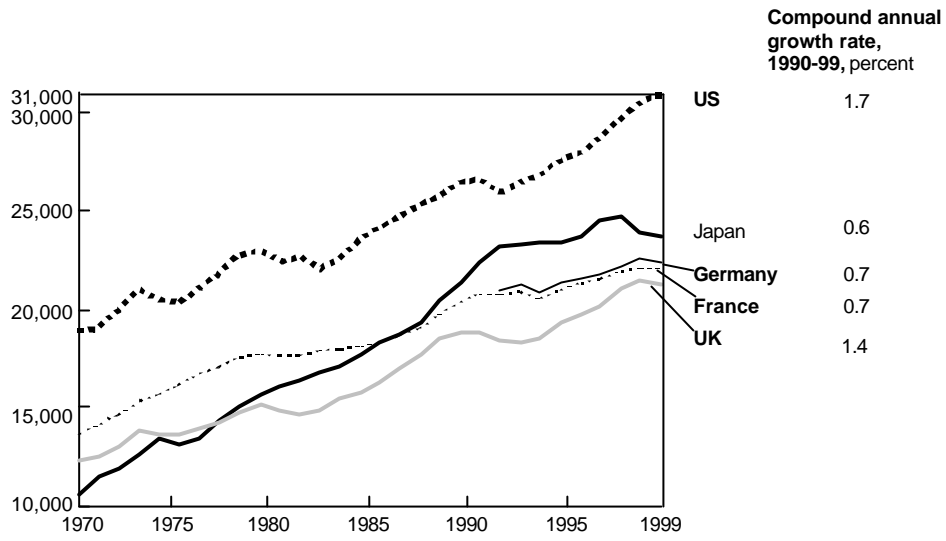
For each of our cases we estimate productivity and output changes with reform (Exhibits A1-A4).

- ¶ Our measure of employment changes resulting from productivity improvements came directly from the potential increases in productivity estimated in each case.
- ¶ We estimated changes in output using the current US level in each case as a reference point and making adjustments for possible US-Japanese differences. Output in Japan should approach the US level today because:
  - We expect economy wide output growth to be 4% over the next ten years, which will result in output levels slightly above that of the US today.
  - Convergence in relative prices across products (due to productivity catch-up in domestic sectors) should yield convergence in output across products.

## **Change in job destruction and creation**

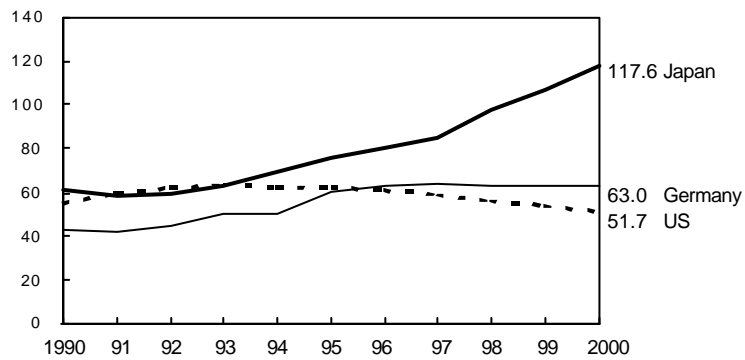
We expect to see an increase in job destruction and creation in Japan. First, moving to the US level of competitive intensity should induce an increase in job destruction toward the US level. In addition, more destruction will result due to the overdue shut downs of subscale operations that cannot compete with productive firms once competition is introduced. For example, the majority of mom and pops, small local food processors, independent traditional carpenters and underutilized hospitals are likely to exit their industry (Exhibits A5 and A6). An offsetting level of creation will result from the increase in both output and services made possible by higher productivity (lower prices and more innovation in services) as well as the elimination of direct regulation of services as in health care. Implementing all the reforms simultaneously, as opposed to gradually, will increase output and thus job creation more dramatically due to positive spillovers between sectors. The government will want to make sure that sectors which will yield job creation (e.g. health care) should be included as a priority.

Exhibit 1  
**THE WIDENING GAP IN REAL GDP\* PER CAPITA**  
 1990 US dollars\*\*



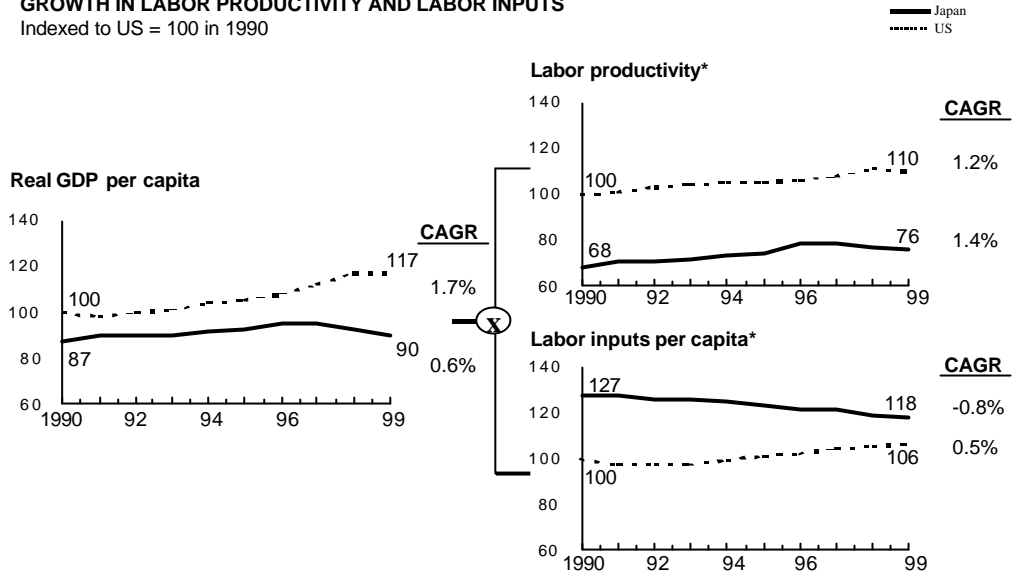
\* Gross domestic product  
 \*\* At purchasing power parity (PPP)  
 Source: OECD

Exhibit 2  
**GENERAL GOVERNMENT DEBT AS A PERCENTAGE OF GDP**  
 1990 - 2000



Source: OECD

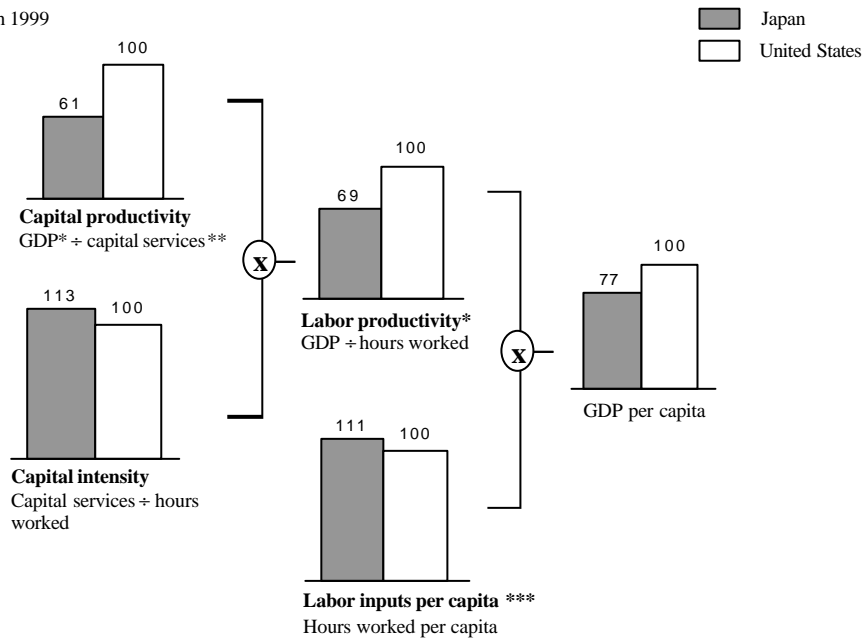
Exhibit 3  
**GROWTH IN LABOR PRODUCTIVITY AND LABOR INPUTS**  
 Indexed to US = 100 in 1990



\* Labor hours for 1999 estimated based on trend over past 10 years  
 Source: OECD; O'Mahony; Ministry of Labor (Japan); Bureau of Economic Analysis (US)

Exhibit 4  
**CAPITAL PRODUCTIVITY**

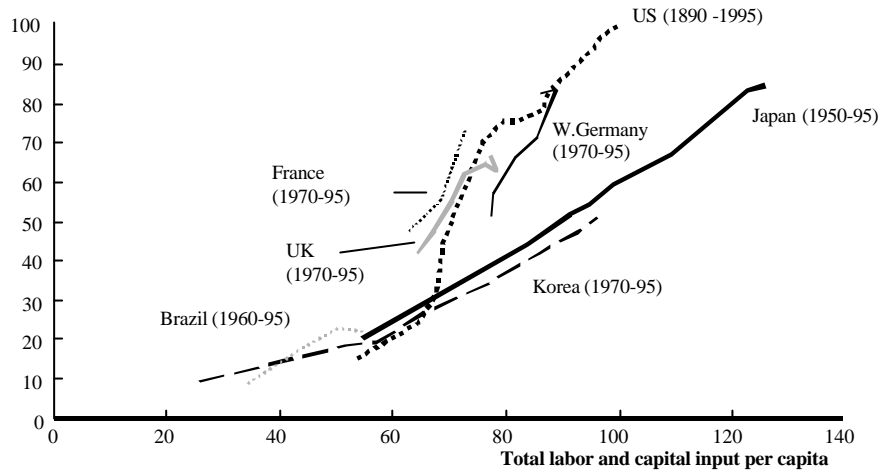
Index: United States = 100 in 1999



\* Gross domestic product, at PPP  
 \*\* 1997  
 \*\*\* Labor hours for 1999 based on trend measured over the past 10 years.  
 Source: OECD; O'Mahoney, Britain's Productivity Performance 1950-1996: an international perspective; Japanese Ministry of Labor; Bureau of Economic Analysis

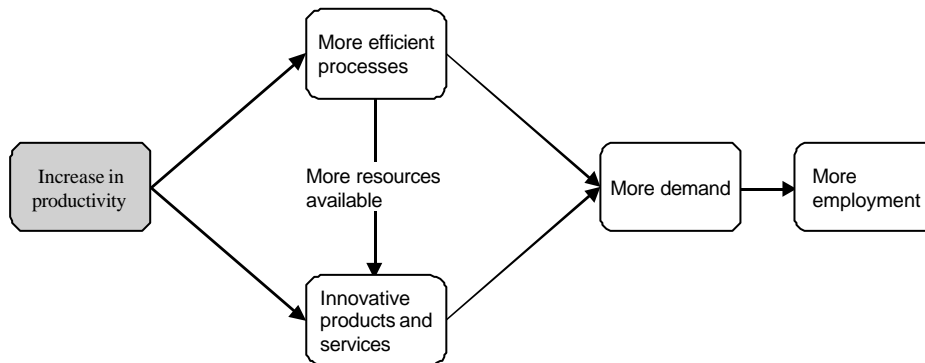
Exhibit 5  
**ECONOMIC DEVELOPMENT PATHS**  
 Percent of US; 1995

**Per capita GDP**



Source: OECD; O'Mahony; McKinsey analysis

Exhibit 6  
**PRODUCTIVITY-LED GROWTH**



Source: McKinsey analysis

Exhibit 7  
**PRODUCTIVITY DISPARITY IN THE JAPANESE ECONOMY**

	<u>Share of employment</u> Percent	<u>Labor productivity</u> Index; US = 100; 1999	
Export-driven manufacturing	10	120	<ul style="list-style-type: none"> <li>• Automobile (145)</li> <li>• Electronics (115)</li> <li>• Machine tools (119)</li> <li>• Steel (120)</li> </ul>
Domestic manufacturing	15	63	<ul style="list-style-type: none"> <li>• Food processing (35)</li> <li>• Textile</li> <li>• Furniture</li> </ul>
Domestic services*	75	63	<ul style="list-style-type: none"> <li>• Retail (50)</li> <li>• Construction (45)</li> <li>• Health care (93)</li> <li>• Business services</li> </ul>
<b>Total</b>	<b>100</b>	<b>69</b>	

\* Includes agriculture and construction  
 Source: OECD; O'Mahony; McKinsey analysis

Exhibit 8  
**LABOR PRODUCTIVITY IN SECTOR CASE STUDIES**

	<u>Share of GDP</u> Percent	<u>Share of employment</u> Percent	<u>Labor productivity</u> Indexed to US = 100 in 1998
Retail	5	12	50
Food processing	5	2	35
Housing construction	5	4	45
Health care	3*	4	93**
<b>Total for sector case studies</b>	<b>18</b>	<b>22</b>	<b>56</b>
	┌ Total for these 4 sectors ─┐		┌ Average for these 4 sectors ─┐

\* 8% of final expenditure  
 \*\* Total factor productivity equals 75% of US  
 Source: National Accounts; McKinsey analysis

Exhibit 9

**SUMMARY OF PRODUCTION PROCESS CASUALITY ACROSS CASES**

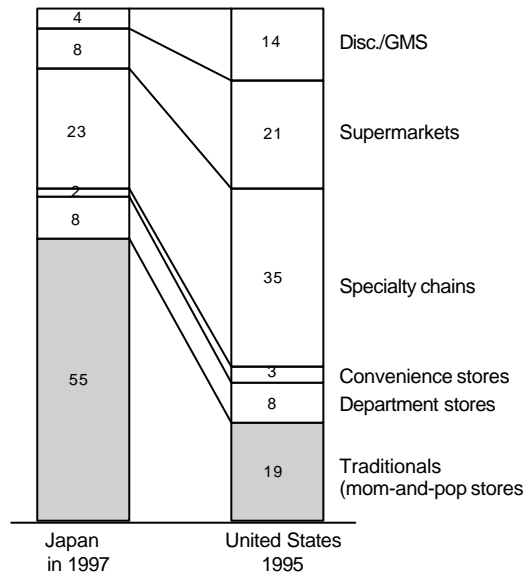
Index; US = 100

● Primary (≥10 points)  
○ Secondary (5-9 points)  
— Undifferentiating (<5 points)

	<u>Retail</u>	<u>Food processing</u>	<u>Housing construction</u>	<u>Health care</u>	<u>Total</u>
• Product mix / market	●	○	○	●	●
• Production factors					
– Capital intensity / technology	—	●	—	—	—
– Scale	●	●	●	—	●
– Labor trainability	—	—	—	—	—
• Operations					
– Organization of functions and tasks	—	—	●	●	○
– Design for manufacturing	—	—	●	—	—
– Supplier / buyer relations	—	—	—	—	—
<b>Productivity</b>	<b>50</b>	<b>35</b>	<b>43</b>	<b>75*</b>	

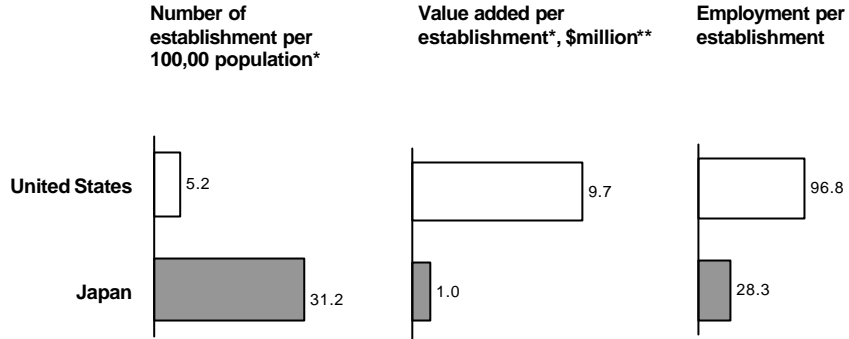
\* Total factor productivity  
Source: McKinsey analysis

Exhibit 10  
**SHARE OF HOURS WORKED IN RETAIL**  
 Percent



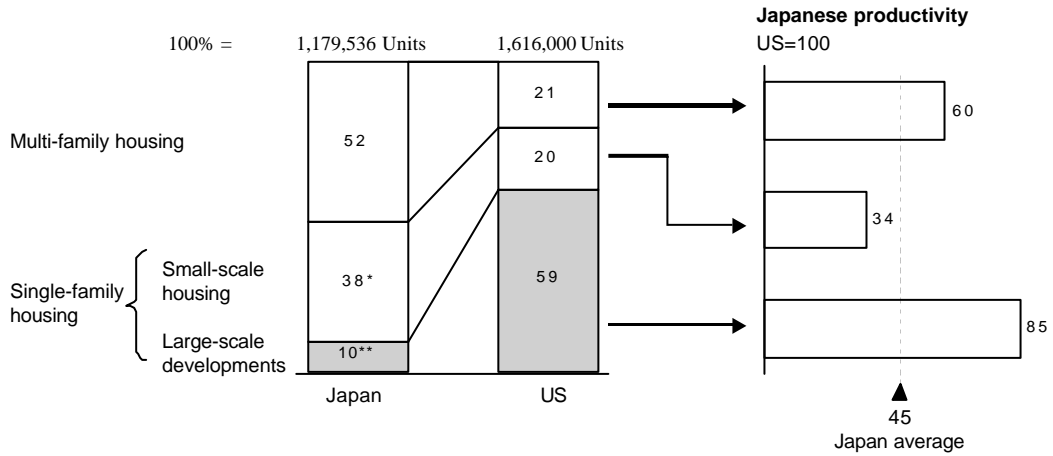
Source: Census of Commerce; Census of Retail Trade; company reports; Nikkei, McKinsey analysis

Exhibit 11  
**SCALE OF FOOD PROCESSING ESTABLISHMENTS**  
 1997



\* Number of establishments for US as of 1992  
 \*\* 1993 dollars at purchasing power parity  
 Source: Japan Census of Manufacturers; US Annual Manufacturing Survey; Norinsuisan Tokei Yoran

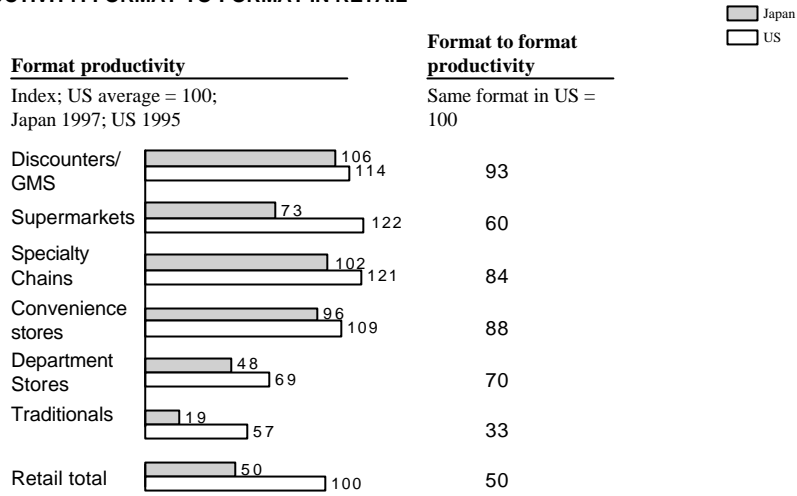
Exhibit 12  
**COMPARISON OF HOUSING MIX**  
 Percent; 1998



\* Mostly post and beam  
 \*\* 10% of total output is built by developers, therefore this is an upper boundary  
 Source: MGI France/Germany report; Ministry of Construction; McKinsey analysis

Exhibit 13

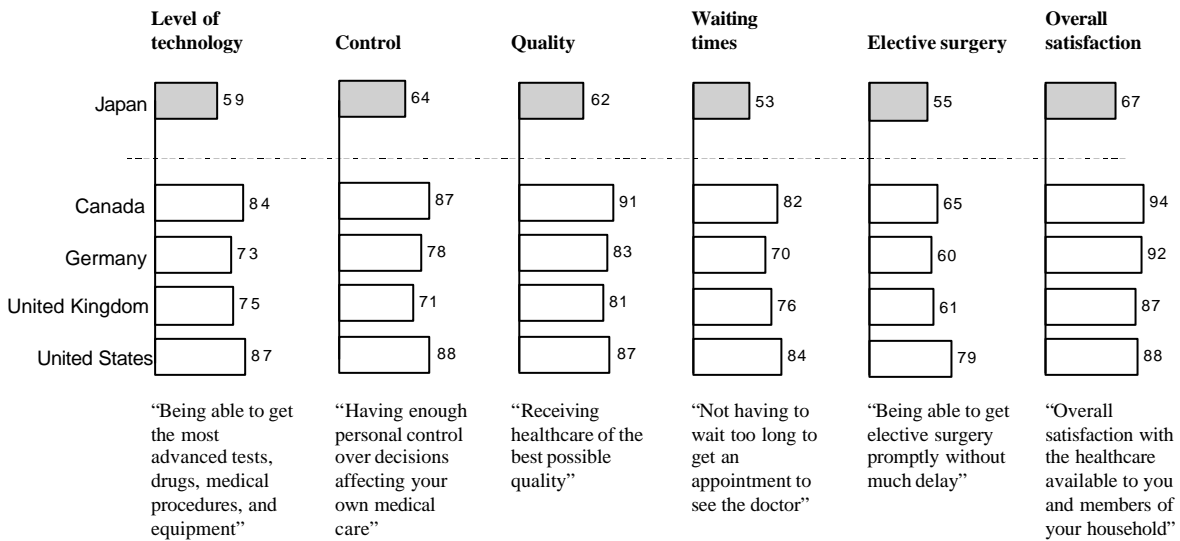
**LABOR PRODUCTIVITY: FORMAT-TO-FORMAT IN RETAIL**



Note: Used double deflated OECD final consumption PPPs for relevant products  
 Source: Census of Commerce; Census of Retail Trade; Compustat; Labor Statistics; Nikkei Needs; Interviews; McKinsey analysis

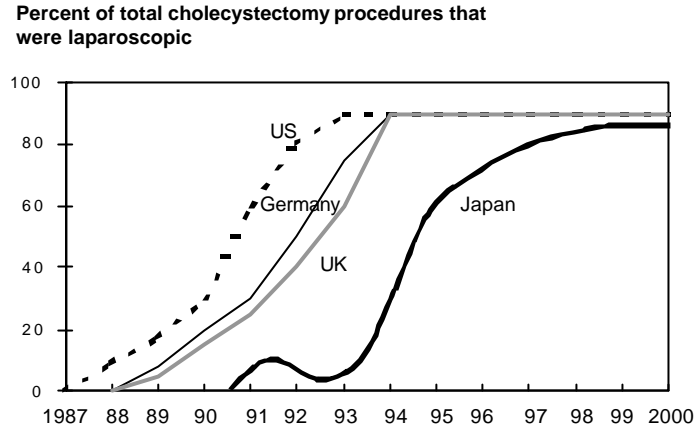
Exhibit 14

**JAPANESE PATIENTS ARE NOT SATISFIED**



Source: Survey of 1000 patients in each country conducted by Louis Harris and Associates for the Harvard Community Health Plan

Exhibit 15  
**RATE OF ADOPTION OF LAPAROSCOPIC TECHNOLOGY**



Source: R. Orlando III et al., 1993(US); NIH Consensus Development Panel on Gallstones and Laparoscopic Cholecystectomy, 1993; R. McCloy, 1992(UK); R.C.G. Russell, 1993(UK); industry interviews(UK); H.J. Kramling et al., 1993(Germany); clinician interviews(Germany); interviews in Japan

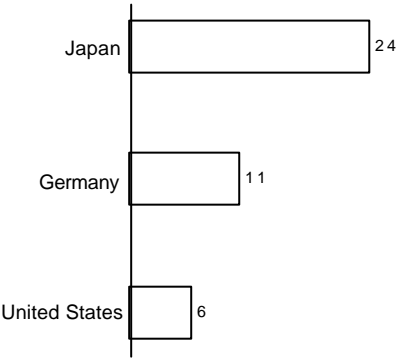
Exhibit 16  
**TOP-SELLING PSYCHIATRIC DRUGS ARE NOT AVAILABLE IN JAPAN**

Top ten selling drugs worldwide	Description	Date approved in:		Time lag behind the US Years
		US	Japan	
1. Losec	Anti-ulcerant	1989	1991	2
2. Zocor	Anti-cholesterol	1991	1991	0
3. Prozac	Anti-depressant	1987	–	12+
4. Norvasc	Calcium antagonist	1992	1993	1
5. Lipitor	Anti-cholesterol	1996	–	3+
6. Renitec	Ace inhibitor	1986	1986	0
7. Seroxlat/Paxil	Anti-depressant	1992	–	7+
8. Zoloft	Anti-depressant	1991	–	8+
9. Augmentin	Broad spectrum penicillin	1984	1985	1
10. Claritine	Antihistamine	1993	–	6+

Not available in Japan

Source: IMS

Exhibit 17  
**AVERAGE LENGTH OF STAY FOR ACUTE CARE**  
**Days; 1996**



Source: Ministry of Health and Welfare; American Hospital Association; Statistisches Bundesamt, Provider interviews, McKinsey analysis

Exhibit 18  
**RANKING OF TOP RETAILERS**

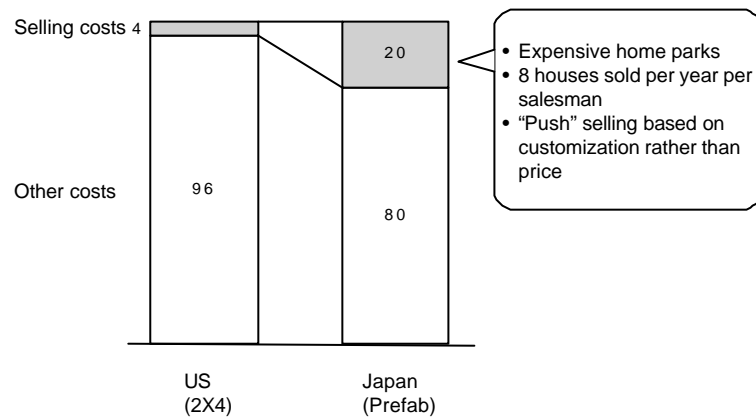
<u>Japan</u>			<u>US</u>		
<u>1983</u>			<u>1983</u>		
<u>98</u>			<u>93</u>		
1	1	Daiei	17	1	Wal-Mart Stores
2	2	Ito-Yokado	1	2	Sears Roebuck
4	3	Jusco	2	3	K-Mart
5	4	Mycal	12	4	Dayton Hudson
7	5	Takashimaya	5	5	J. C. Penney
3	6	Seiyu	-	6	Home Depot
10	7	Uni	4	7	Kroger
6	8	Mitsukoshi	3	8	Safeway
9	9	Seibu	-	9	Costco
13	10	Marui	9	10	American Stores

▼	▼
Little change in ranking	Dramatic change/ competition

Source: Fortune; NIKKEI

Exhibit 19  
**PUSH SELLING IN THE JAPANESE HOUSING SECTOR**  
1999



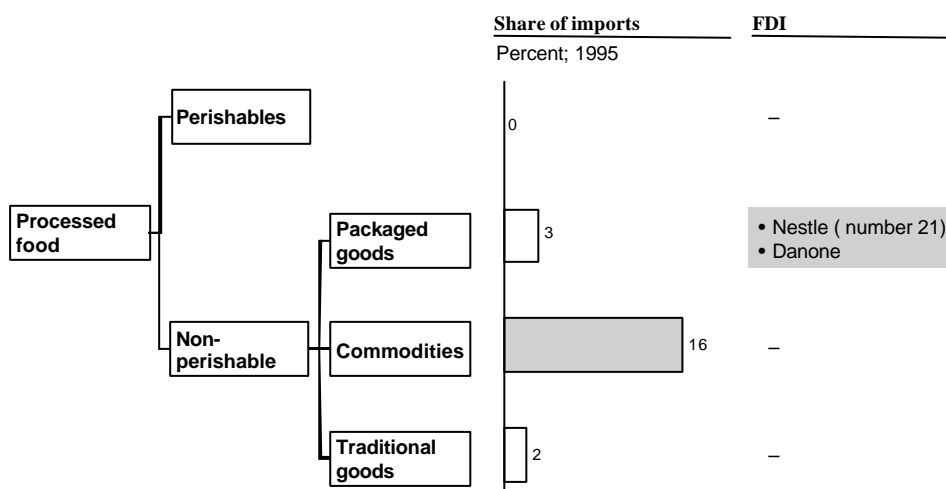
Source: Interviews

Exhibit 20  
**FOREIGN ENTRANTS – KEY EXAMPLES**

	<u>Store</u>	<u>Year of entry</u>	<u>Market share within category</u>
<b>Toys</b>	• Toys'R'Us	1991	10%
<b>Clothes</b>	• Gap	1995	n/a
<b>Interior goods</b>	• Pier 1 Imports	1996	<1%
<b>Sports goods</b>	• Sports Authority	1996	<1%
<b>Office goods</b>	• Office Depot • Office Max	1997 1997	<1%
<b>Discounter / hypermarket</b>	• Costco • Carrefour	1998	<1%
<b>Sports shoes</b>	• The Athlete's Foot Group	1998	<1%

Source: NIKKEI

Exhibit 21  
**INDUSTRY DYNAMICS**



Source: Input-output tables; Interviews

Exhibit 22  
**MARKET DISTORTIONS IN SECTOR CASE STUDIES**

● Important (≥10 points of gap)  
 ○ Secondary (5-9 points of gap)  
 — Undifferentiating (<5 points of gap)

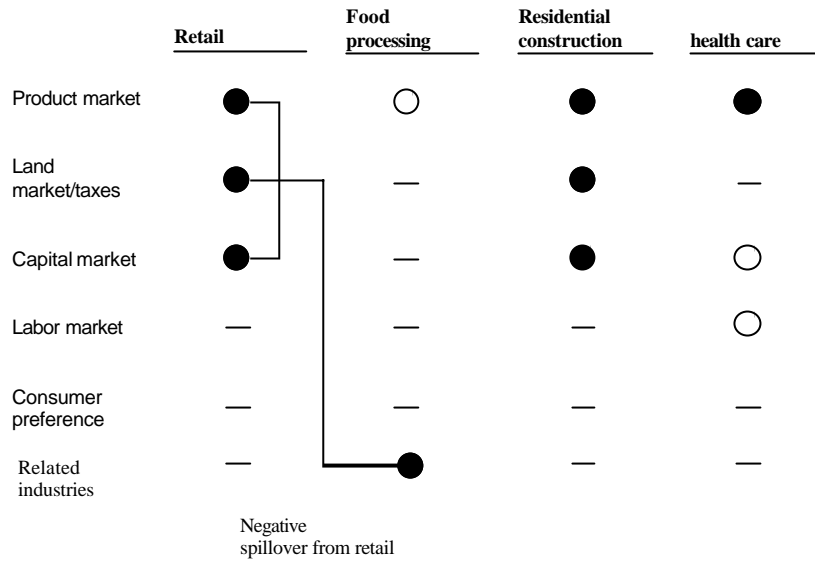


Exhibit 23  
**TYPES OF MICRO MARKET DISTORTIONS**

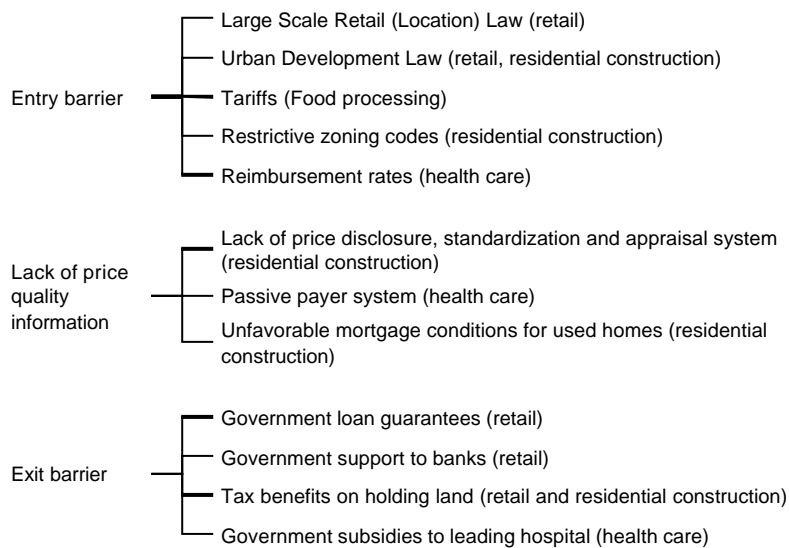
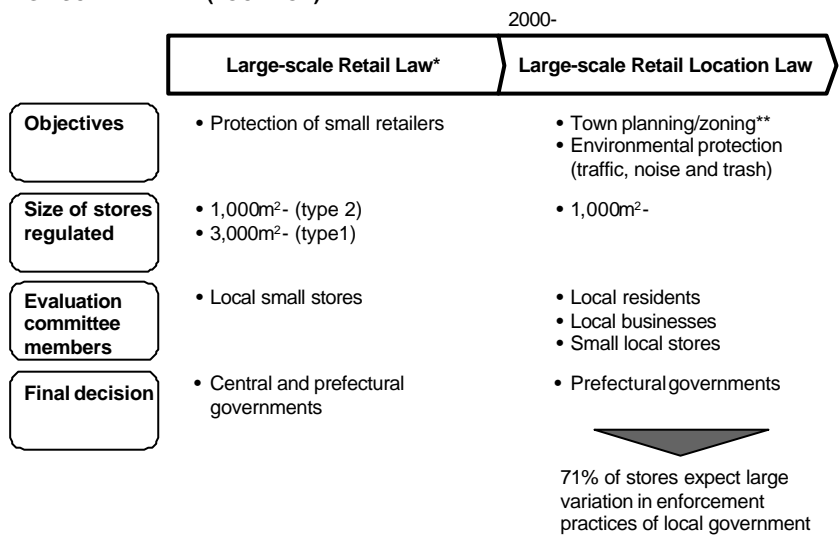


Exhibit 24  
**LARGE SCALE RETAIL (LOCATION) LAW**



\* Enacted in 1974 and gradually deregulated in 1990, 1992 and 1994  
 \*\* Zoning regulated under revised City Planning Law  
 Source: Nikkei; Goldman Sachs

Exhibit 25

**PRODUCTIVITY AND IMPORT RESTRICTIONS ON COMMODITY FOOD PRODUCTS**

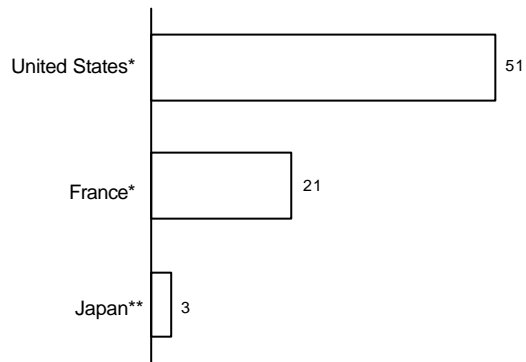
<u>Productivity</u> Index; 100=U.S.; 1997	<u>Trade barriers in Japan</u> 1999			
	<u>Tariff rate</u>	<u>Other restrictions</u>		
Vegetable oil	86	0 - 5.3%	–	High productivity products generally have low trade barriers
Chicken	73	8.8 - 12.3%	–	
Flour	56	12.5 - 160%*	Rate depends on the purpose of imports	Low productivity products generally have high tariff and/or other restrictions
Meat processing	42	Beef: 40.4 - 50% Pork: 4.4-700%**	– Price differential/government supply adjustment	

\* 12.5 - 25% applied to imports for specific purposes only. Most are subject to ad valorem rates and other duties; estimated to be 160% of market price.

\*\* Actual tariff is ad valorem rate of 371.67/kg yen. Rate calculated based on pork prices in the market.

Source: Census of Manufacture; Economic Census; *Agro-Trade Handbook*, JETRO (1999); *Trade Policy Review Japan*, WTO (1998); Interviews

Exhibit 26  
**SECONDARY HOUSING: UNDERDEVELOPED**  
Number of existing houses sold per thousand dwellings



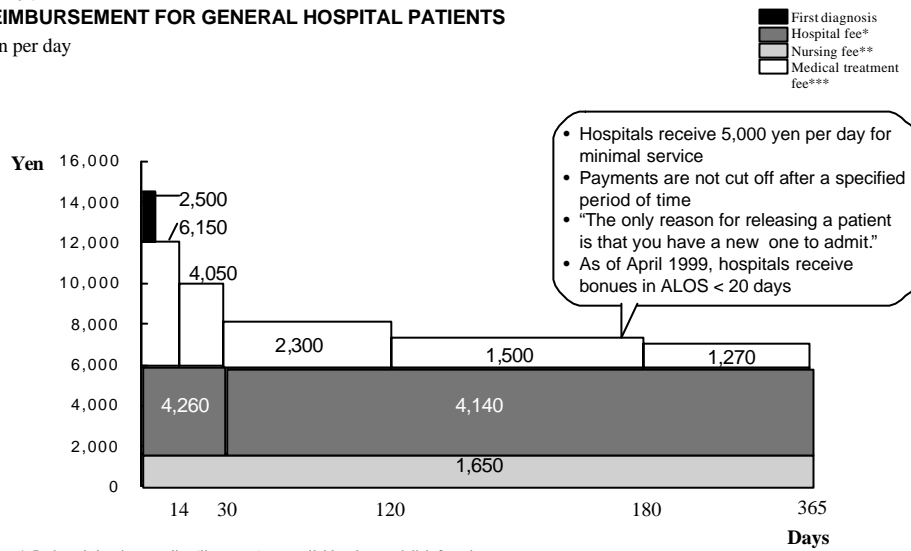
\* 1999

\*\* 1992

Source: Databook on housing economics Ministry of Construction (Housing Industry Newspaper 1999); interviews

Exhibit 27  
**REIMBURSEMENT FOR GENERAL HOSPITAL PATIENTS**

Yen per day



\* Beds and sleeping supplies (linen, etc.) are available, clean and disinfected

\*\* Nurse-patients ratio = 1:3

\*\*\* Includes simple diagnoses, blood pressure measurement, hypodermic injections, intramuscular and intravenous injection, or simple physical remedies

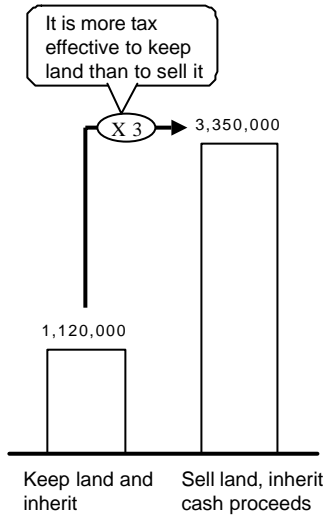
Source: MHW

Exhibit 28

**TAX OBLIGATION FOR A TYPICAL MOM-AND-POP STORE**

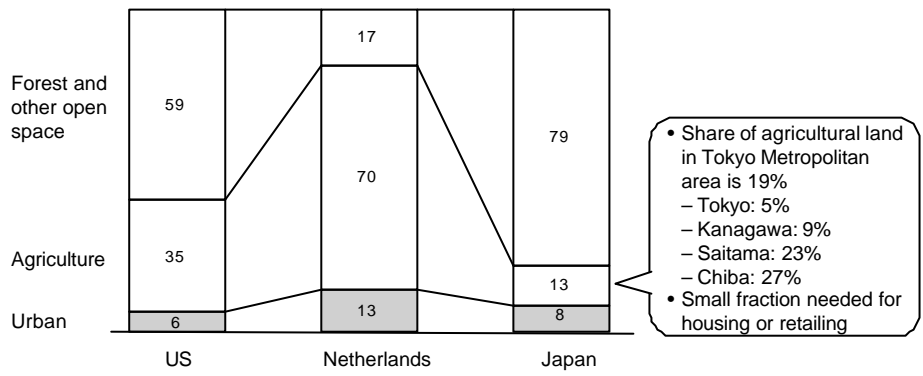
Yen; NPV of property tax, capital gains tax and inheritance tax at 3% over 25 years

- “Typical Mom and pops”
- Family operates a retail store and lives on the site
  - Owned land: 200m<sup>2</sup>
  - Market value of the owned land: 50 million yen (60% residence, 40% business)
  - Assets are inherited by 1 spouse and 2 children



Source: Interviews; McKinsey analysis

Exhibit 29  
**AVAILABILITY OF LAND**  
 Percent of total

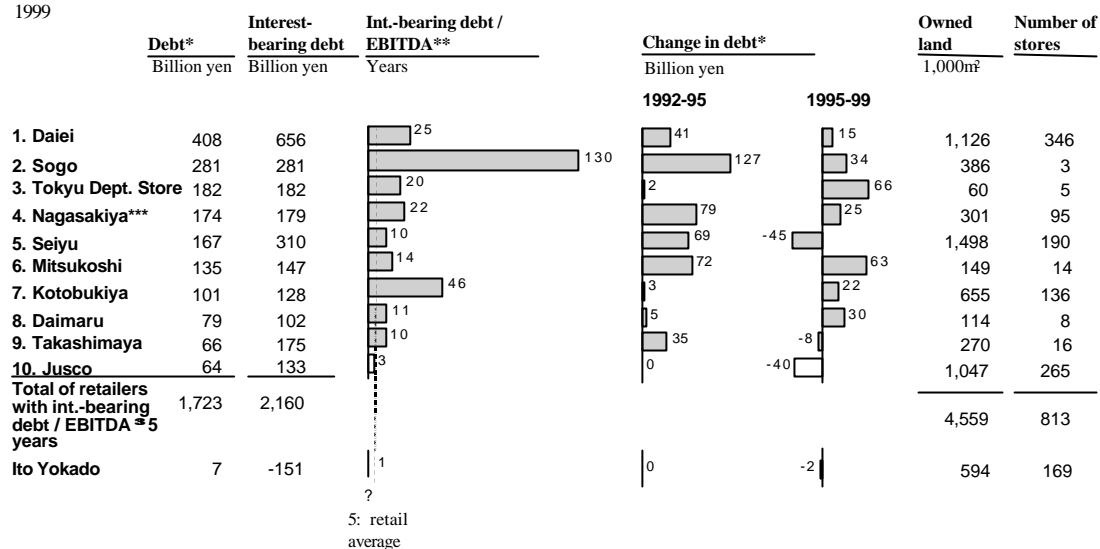


Source: US Department of Agriculture; CBS Bodemstatistiek; Land Agency of Japan

Exhibit 30

TOP 10 RETAIL GROUPS BY BANK DEBT AMOUNT

1999



\* Long-term debt + short-term debt, excluding bonds

\*\* Average (beginning and end of FY) net debt / (operating profit + depreciation): Years required to repay debt

\*\*\* Filed for bankruptcy on Feb. 13, 2000

Source: Annual reports; Nikkei; Daiwa Analyst Guide

Exhibit 31

BANK LOANS TO RETAILERS WITH LARGE DEBT

Million yen; 1999

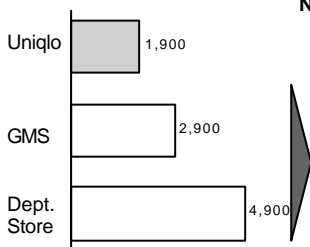
█ Main banks

Retailers with large debt	DKB	LTCB	IBJ	Tokyo-Mitsubishi	Fuji	Mitsui Trust	Sumitomo	Sakura	Norin Chukin	Sanwa	Other	Total
1. Daiei		21,570		14,655	33,744	14,238	33,744		24,211	33,744	232,283	408,188
2. Sogo		34,193	88,106		5,730			16,521		5,970	147,305	281,304
3. Tokyu Dept Store			5,932	34,701	15,919	34,451	2,500	23,564	3,500	2,500	65,607	181,631
4. Nagasakiya	67,603	20,920			1,320		5,000	5,365		1,000	54,657	174,064
5. Seiyu	21,355	14,904		15,192	10,684			10,499	10,794		88,314	166,608
6. Mitsukoshi	30,600				20,322	20,322	10,499				43,164	135,406
7. Kotobukiya	6,743	11,924	7,000						9,745		65,534	100,946
8. Daimaru	1,300	12,865		24,417			15,066	1,199	1,390		22,778	79,015
Total	127,601	116,376	101,038	88,965	87,719	69,011	66,809	57,148	49,640	43,214	719,642	1,527,163

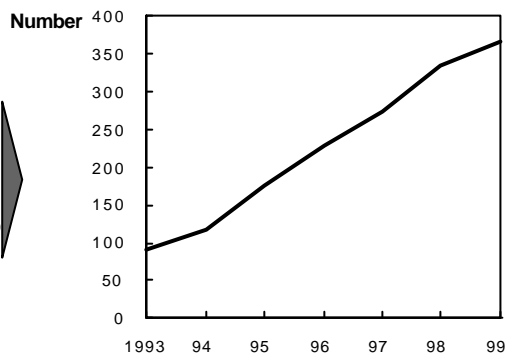
Source: Annual reports

Exhibit 32  
**UNIQLO'S PERFORMANCE**

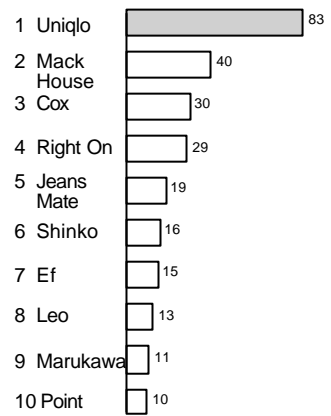
**Price of fleece jackets**  
 Yen; 1999



**Number of stores: Uniqlo**



**Sales of largest casual wear retailers in Japan**  
 Billion yen; 1998



Source: Company brochure; NIKKEI

Exhibit 33  
**POLICIES FOR REFORM**

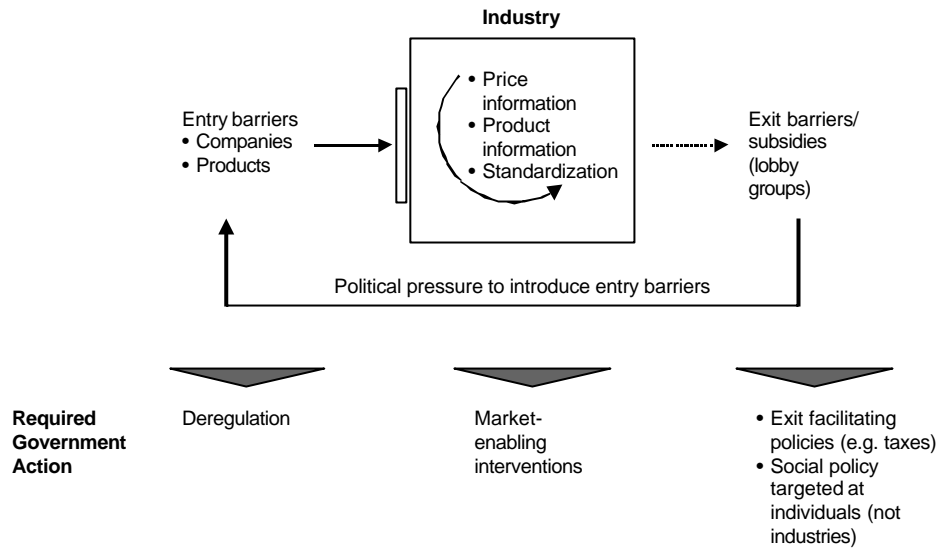
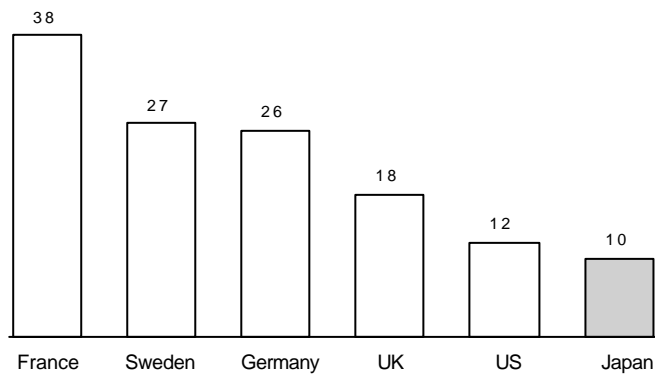


Exhibit 34  
**AVERAGE UNEMPLOYMENT BENEFIT COMPARED TO PREVIOUS INCOME\***  
 Percent; 1995



\* Average calculated by various family compositions and lengths of unemployment for a 40 year old  
 Source: Martin (1996)

Exhibit 35  
**PRODUCTIVITY GROWTH**  
 CAGR

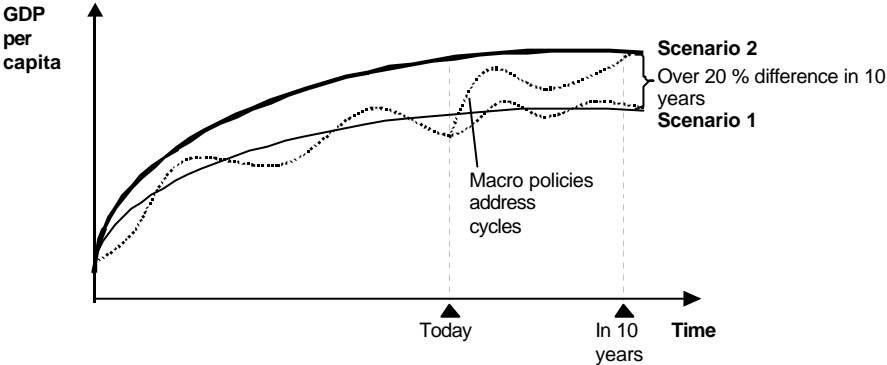
	<u>Last 10 years</u>	<u>Next 10 years – potential</u>	
		<u>Scenario 1*</u>	<u>Scenario 2**</u>
Retail	1.7	1.8	6.1
Food processing	-0.4	0	6.3
Housing construction	0.5	1.5	6.9
health care	n/a	n/a	n/a
<b>Weighted average</b>	<b>1.2</b>	<b>1.5</b>	<b>6.3</b>

\* Base case; no reform  
 \*\* Removal of barriers identified

Exhibit 36  
**PRODUCTIVITY FRONTIER**

CONCEPTUAL

..... Actual GDP  
per Capita

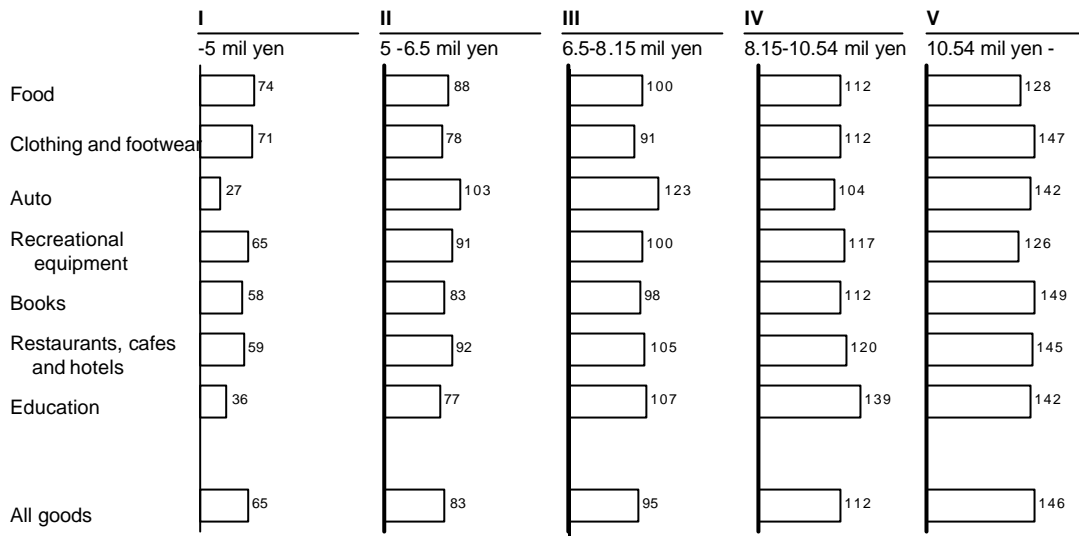


Source: McKinsey analysis

Exhibit 37

**CONSUMPTION PER CAPITA: JAPAN BY INCOME QUINTILES**

Index; Japan average by product = 100

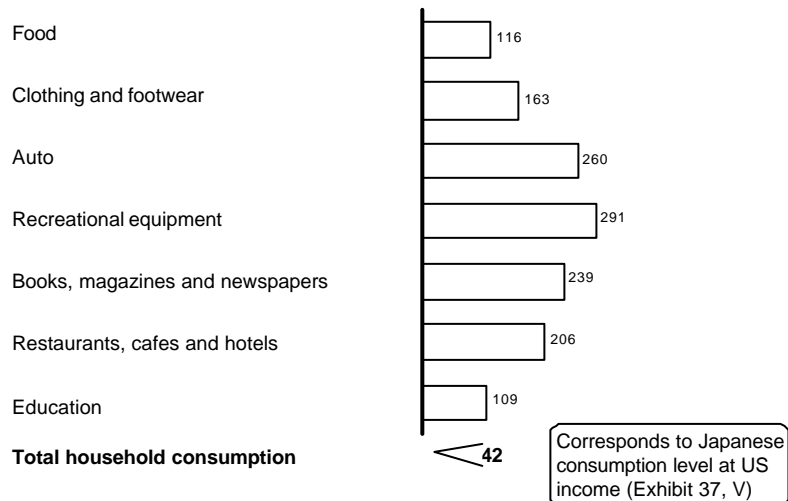


Source: National survey of income and expenditure

Exhibit 38

**CONSUMPTION PER CAPITA IN THE US (vs Japan)**

Index; Japan = 100 in each category; 1993



\* Value added converted at individual product category PPP  
 Source: OECO; INSEE; Baustatistisches Jahrbuch; CBS; Bureau of Census; McKinsey

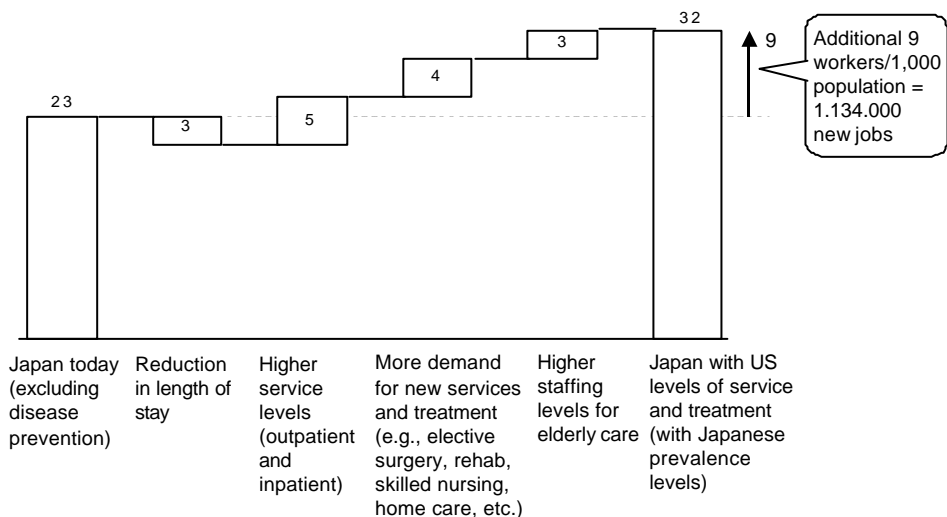
Exhibit 39  
**EMPLOYMENT CHANGE FROM REFORM OVER 10 YEARS**  
 Thousand employees

Section	Employment	Job destruction from productivity improvement	Job creation		Net job creation
			More output*	More services	
Retail	7,491	3,329	2,250	-	-1,079
Food processing	1,404	635	469	-	-166
Residential construction	2,440	1,193	275	288	-630
Health care	2,771	378	378	1,134	1,134
<b>Total</b>	<b>14,103</b> (22% of total employment)	<b>5,535</b>	<b>3,372</b>	<b>1,422</b>	<b>-741</b>    -0.5% per year

No change in unemployment since working age population is declining at 0.5% per year

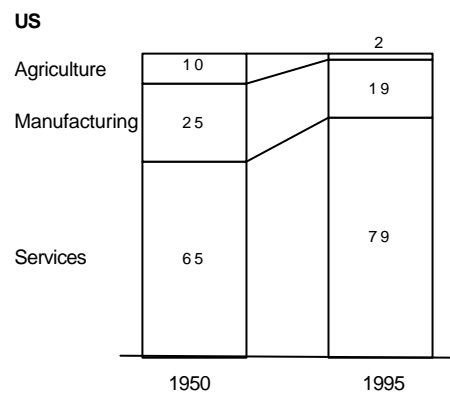
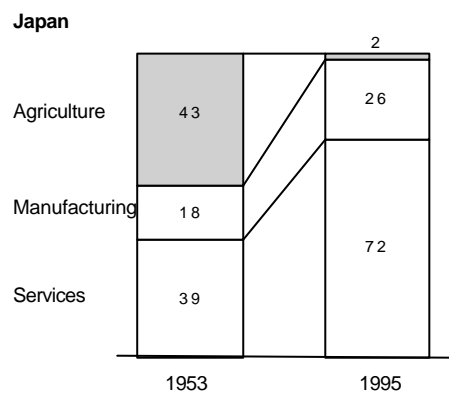
\* Due to lower prices/higher income  
 Source: McKinsey analysis

Exhibit 40  
**EMPLOYMENT POTENTIAL OF JAPANESE HEALTH CARE SYSTEM**  
 Workers per thousand population



Source: MHW, McKinsey analysis

Exhibit 41  
**CHANGES IN EMPLOYMENT COMPOSITION**

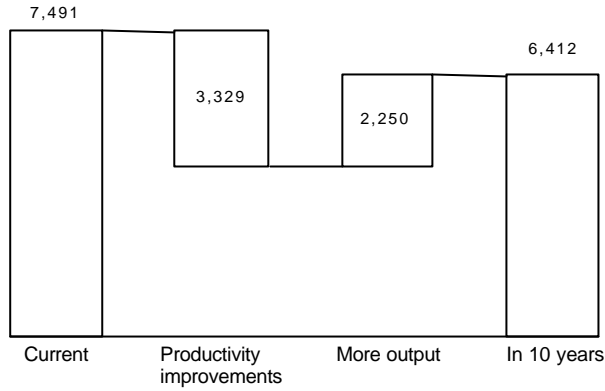


Source: O'Mahoney

Exhibit A1

**RETAIL: EMPLOYMENT CHANGE FROM REFORM**

Thousand employees



**Rationale**

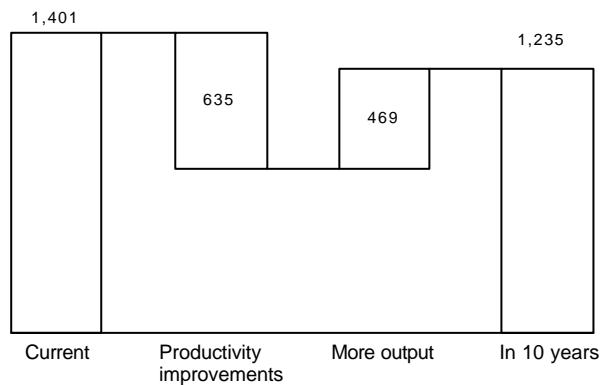
- Productivity improves from 50 to 90% of the US level in 1995
- Output grows from 74% to 114% of the current US level\*

\* We estimate aggregate output to increase by 50% (+4.2% a year), from 77% to 116% of the US today, with reform over the next 10 years. To be conservative we used a slightly lower estimate of 114  
 Source: McKinsey analysis

Exhibit A2

**FOOD PROCESSING: EMPLOYMENT CHANGE FROM REFORM**

Thousand employees



**Rationale**

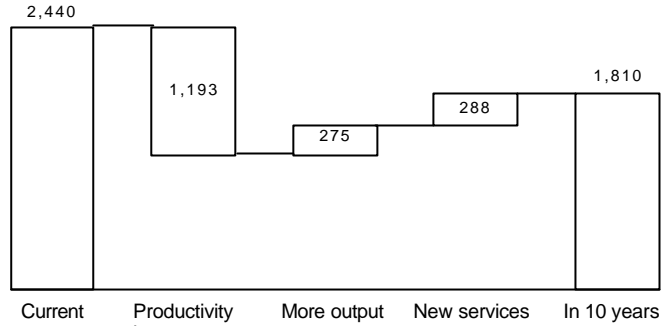
- Productivity improves from 35 to 64% of the US level in 1997
- Output grows from 62% to 100%\* of the US level

\* Even when aggregate output reaches 116 of the US level today, we do not expect food consumption to reach that level due to diet differences and slightly more imports, however, this is offset by a high income elasticity in Japan  
 Source: McKinsey analysis

Exhibit A3

**RESIDENTIAL CONSTRUCTION: EMPLOYMENT CHANGE FROM REFORM**

Thousand employees



**Rationale**

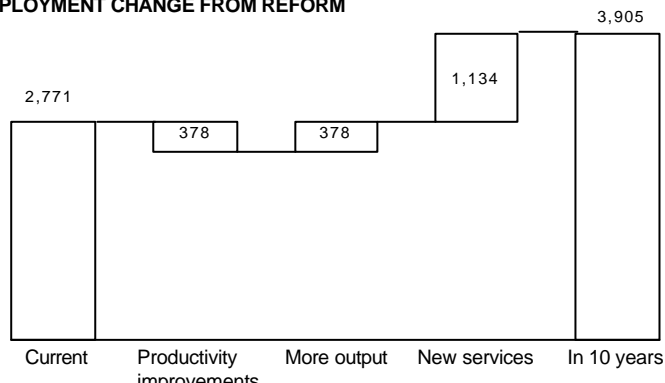
- Productivity improves from 45 to 88% of the US level in 1999
  - Increase in total square meters (slightly less units, more sqm/unit)
  - More remodeling\*
- Overall output grows from 62% to 90% of the US

\* Total square meters reaches the US level. Remodeling increases four-fold, but is still 70% of the US level  
 Source: McKinsey analysis

Exhibit A4

**HEALTHCARE: EMPLOYMENT CHANGE FROM REFORM**

Thousand employees



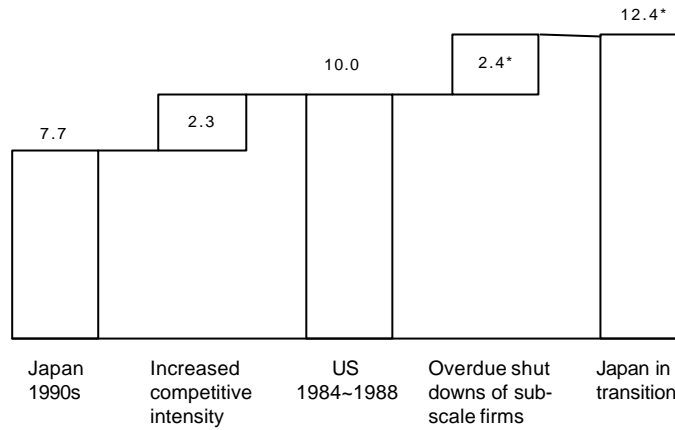
**Rationale**

- Reduction in length of stay
  - Higher staffing levels for elderly care
  - Higher service levels, more demand for new services and treatment
- Same service level per disease prevalence at the US\*

Note: Refer to exhibit 40 in the synthesis for more detail.  
 \* Refer to exhibit 10 in the health care case for derivation of the explicit link from output to employment  
 Source: McKinsey analysis

}

Exhibit A5  
**CHANGE IN JOB DESTRUCTION RATE**  
 Percent of employment



\* 24% over 10 years. One time destruction in 10 years. This is an upper bound as this estimate is made using particularly unproductive domestic sectors.

Source: OECD Employment Outlook 1994, Yearbook of labor statistics

Exhibit A6  
**JOB DESTRUCTION ABOVE THE NATURAL RATE**

	Destruction above natural rate over 10 years resulting from overdue reform (estimate)		Explanation
	Thousand employees	Percent of employees	
Retail	2000	27	• Exit of mom-and-pops (down to the US per capita level)
Food	420	30	• Exit of subscale processors at a rate consistent with retail (and thus food processing) consolidation
Residential construction	730	30	• Exit of carpenters who build subscale traditional post-and-beam houses
Health care	250	9	• Exit of underutilized hospitals (hospitals that reduce utilization after length of stay has been reduced)
	3,400 (total)	24 (average)	

Source: McKinsey analysis