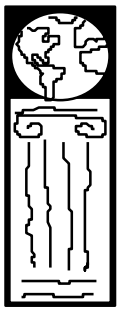
# Reaching higher productivity growth in France and Germany

**Sector case: Retail trade**



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October 2002

This document is an excerpt drawn from the report "Reaching higher productivity growth in France and Germany", published by the McKinsey Global Institute in October 2002.

The full report can be obtained from:

McKinsey Global Institute website:
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## FOREWORD

For fifty years following the end of the Second World War, France and Germany continually narrowed the labor productivity gap with the US. In the mid-1990s, however, the trend reversed: France and Germany are no longer catching up. Weakening productivity performance should worry us given the current and projected demographic challenges: future living standards depend on high productivity growth. To develop effective solutions for dealing with these challenges, policy makers and business leaders in France and Germany need to base their decisions on a complete and nuanced understanding of the barriers to and drivers of higher productivity growth.

To contribute to such an understanding and derive actionable recommendations, the McKinsey Global Institute (MGI) performed an extensive in-depth analysis of the labor productivity performance of six sectors in France, Germany, and the US. The full report consists of an executive summary, seven chapters and an appendix. The first chapter, the Synthesis, provides an overview of our approach and conclusions, and can be read as a stand-alone summary of our work. The remaining chapters provide our case studies on Telecommunications, Retail banking, Automotive, Road freight, Retail trade and Utilities. Each of these cases has a brief summary in the beginning.

The MGI – McKinsey & Company's economic think tank – combines the firm’s business experience with the rigor of academic thinking. This document reflects active dialogue between industry experts, experts from premier research institutions, and our own specialists, who work closely with executives of leading French and German businesses. This project was conducted under the direction of Heino Faßbender, Diana Farrell, Eric Labaye, and Vincent Palmade. Thomas Kneip and Stephan Kriesel were responsible for the management of the project. We are very grateful to the companies and individuals who supported our research by agreeing to provide data about their operations through interviews and surveys.

In addition, our work benefited tremendously from in-depth discussions with the academic board: Olivier Blanchard from the Massachusetts Institute of Technology in Boston, Martin Baily from the Institute for International Economics in Washington DC, Hans Gersbach from the University of Heidelberg, Monika Schnitzer from the University of Munich, Jean Tirole from the University of Toulouse, and Robert M. Solow, Nobel laureate and the "godfather" of growth discussions – all of whom contributed significantly to interpreting the results of our research. McKinsey & Company has the privilege of serving many of the leading companies in France and Germany. Through this work, we have observed the huge potential that can be tapped in order to boost productivity performance. We hope that our report will help policy makers and business leaders unlock this potential by providing them with an objective and fact-based perspective.

Before concluding, we would like to emphasize that this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

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## MCKINSEY & COMPANY

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With more than 6,500 consultants deployed from 82 offices in 44 countries, McKinsey advises leading companies on strategic, operational, organizational, and technological issues. We work for the largest and most prestigious companies in each market we serve. In addition, we advise a diverse group of governments, public sector institutions, and nonprofit organizations on management and policy challenges. McKinsey has had a permanent office in both France and Germany since 1964, where we have served many of the top blue-chip companies in the areas of financial services, telecommunications, high tech, automotive, basic materials, and consumer goods.

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The McKinsey Global Institute (MGI) is the internal economic research think tank of McKinsey & Company. Founded in 1990 and based in Washington, DC, its mission is to offer insights into global economic issues of relevance to our clients and international leaders, and to research the key barriers to faster growth in the world economy.

The MGI's methodology is a combination of two distinct disciplines: economics and management. Both of these disciplines are concerned with economic growth, but neither is positioned to understand it fully. Economists have scant access to the real-life problems facing business managers, while managers often lack the time and incentive to look beyond their own situation to the larger issues of productivity in their industry or the economy as a whole. McKinsey's economic research remedies this situation by combining the academic rigor and breadth of economics with the deep and practical industry knowledge and management understanding we use in our daily work with clients. The MGI's research is founded on a unique collection of facts and microeconomic analyses that is beyond the reach of most academic and government-sponsored research. Our teams have conducted in-depth analyses of fourteen countries covering all continents, ranging from the most advanced economies (e.g., the US, Japan, the UK, the Netherlands, France, and Germany) to the developing ones (e.g., India, Russia, and Brazil). In each country, a representative sample of economic sectors has been studied covering a broad spectrum of products and services. The result is a unique perspective on productivity and its contribution to economic growth.

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# Retail trade

## EXECUTIVE SUMMARY

Retail accounts for a substantial share (7 to 9 percent) of employment in France, Germany and the US. Labor productivity is highest in the US, closely followed by France, which is 2 percent lower, and Germany, which lags by 10 percent. Setting US productivity to 100, the corresponding values in food retailing were 107 in France and 86 in Germany. In apparel retailing, we found productivity in France to be 85, and 71 in Germany.

This analysis of differences in labor productivity focuses on four subsectors that between them account for two thirds of retail sales: Food, specialty apparel, furniture and electronics, and home improvement. Subsequently, modern food retail formats and specialty apparel were retained for the causality analysis of level differences.

### Labor productivity performance

In 2000, labor productivity in retail trade was highest in the US, ahead of France by 2 percent and of Germany by 10 percent. However, these figures mask the fact that in food retailing, French productivity was 7 percent higher than in the US.

France's productivity advantage in food retailing is largely due to a 19 percent lead over the US in modern food retail formats. This can be explained by the specific regulatory environment in France where zoning laws have limited the expansion of large-format sales space, resulting in outstanding capacity utilization. Regulation in France also explains a good part of the lower employment rate in France compared to the US and Germany. In contrast with these regulatory effects are lower demand and a slower pace of business innovation than in the US.

- *Firm-level factors* – Capacity utilization is much higher in France due to lower store density and shorter opening hours. The major advantage held by US retailers is the greater diffusion of innovative processes in merchandise management, supply chain management, and store operations. US productivity also benefits from retailers being able to sell more goods of higher value.

- *External factors* – In France, zoning laws restrict expansion while labor laws restrict opening hours and prohibit low-cost workers offering additional customer services. The demand structure of the US market fosters productivity by allowing retailers to push through the higher-value goods mentioned above. The pace of business innovation in France and Germany is lower, mainly due to a reluctance to process integration with suppliers, weak corporate governance that has led to overcapacities in the German market (and a resulting tight profit situation that limits the possibility for long-term efficiency investments), and high entry barriers for innovative players.

## The role of IT

IT has played a key enabling role for retail process innovations that have increased productivity. For example, it is essential to have the right IT systems in place for successful process integration, as they enable the necessary data exchange to create win-win situations for retailers and suppliers. Of course, increasing IT spending will not, by itself, increase productivity – fundamental process changes have to be implemented at the same time. Just as process innovation proceeds at a slower pace in French and German retailing, the two countries have a 13 to 15 percent lower IT spending per output.

## Outlook and recommendations

Development of productivity levels over the coming decade will be determined by changes in regulation and the further evolution of business processes in French and German retailing.

Although at first glance, the retail industry does not seem to be very heavily regulated, large differences in productivity occur due to the regulatory environment. Regulation needs to be carefully evaluated as there is a trade-off between stricter laws, which are a social choice, and economic and employment growth.

Innovations in retail processes are at hand and business leaders should take the opportunity to cherry pick the most successful applications. Yet, in deploying them, the specific circumstances of the business environment in which they are operating need to be taken into consideration. First of all, issues surrounding supplier relationships and their impact on process integration, and the overcapacity in the German market need to be addressed to move closer to the productivity level of the US retail industry.

## OVERVIEW

The retail sector is one of the largest employers in France, Germany and the US, with a share of employment ranging from 7 percent in France to 9 percent in Germany[1] in 2000 (Exhibit 1). Due to its sheer size, this sector deserves particular attention in comparative productivity analysis.

Exhibit 1

**IMPORTANCE OF RETAIL TO OVERALL ECONOMY**


* Excluding food services ("eating and drinking places"), automotive retail, and gasoline stations
Source: INSEE, Statistisches Bundesamt, BEA, BLS, MGI analysis

### Importance of the sector to the overall question

In a previous study, MGI found that labor productivity growth in US retail had accelerated sharply in the mid-1990s, partly due to process improvements enabled by IT[2]. In comparing productivity levels in Germany, France and the US, the question arises as to why there are such large differences between the countries, and whether the drivers of US productivity growth identified in the previous report now appear as causes for productivity differences between the countries.

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1 Excluding food services, car retailing, and gasoline retailing.

2 McKinsey Global Institute, "US Productivity Growth, 1995 - 2000: The role of IT relative to other factors" (2001).

## Industry profile

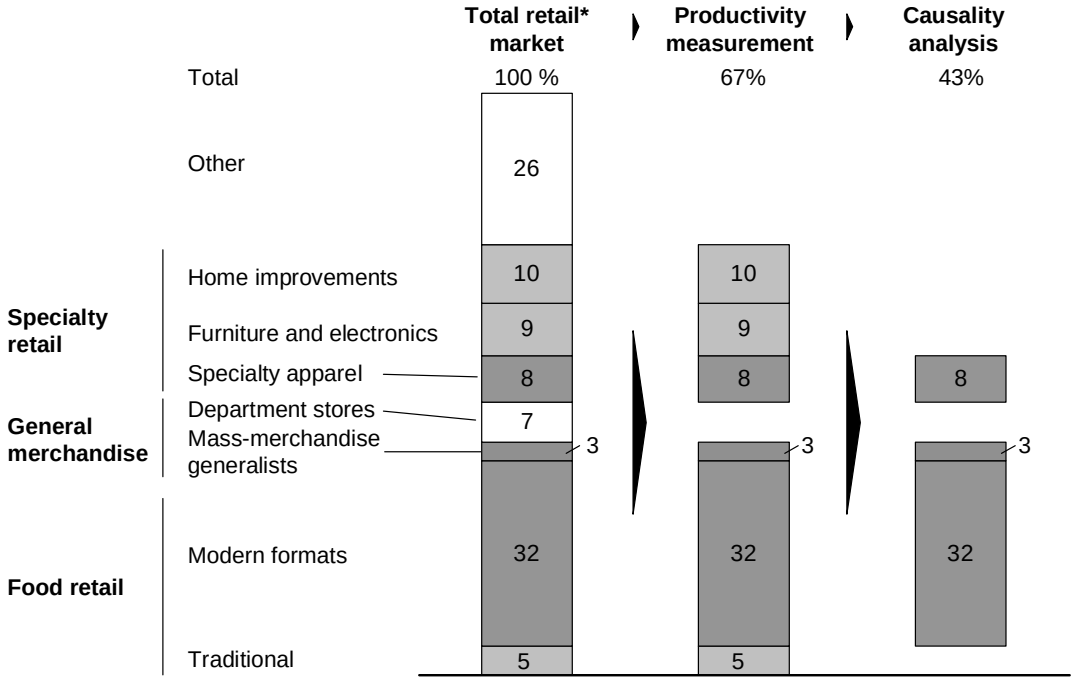
The sheer variety of product categories carried by retail companies has led to fundamentally different business models operating under equally different external constraints. For example, food is not sold in the same way as gardening tools. Consequently, a meaningful analysis of productivity can only be conducted at subsector level.

This study of productivity in France, Germany and the US followed a two-step approach. Initially, productivity was measured for four subsectors accounting for an average of two thirds of retail sales in France and Germany: Food, specialty apparel, furniture and home appliances, and home improvement. In the second step, the analysis of the differences between the countries was restricted to the food and apparel sectors to obtain deeper insights (Exhibit 2).

Exhibit 2

**RETAIL SUBSECTORS AND FOCUS OF ANALYSIS**

Percent of total retail* sales (average of France, Germany, the US), 2000




* Excluding food services ("eating and drinking places"), automotive retail, and gasoline stations

Source: BEA, BLS, INSEE, Statistisches Bundesamt, MGI analysis

¶ *Food retailing* – This covers retail outlets where the majority of sales are derived from food products[3], although non-food sales are included because it is neither feasible nor useful to split retail outlets according to

[3] Mobile retail businesses, i.e., markets, are not included in food retailing.

product assortment. US general merchandise retailers (but not department stores) were included in this subsector to obtain a comparable industry landscape, as some US retailers are starting to blur the distinction between food and general merchandise retailing, and European food retailers typically carry a higher share of non-food items than their US counterparts. In addition, the "big-box" operating format is common to both subsectors in the US. Examples of companies which operate like this in the food retailing subsector are Wal-Mart, Carrefour, Real and Aldi (Exhibit 3). The drivers of productivity have been analyzed only for modern store formats, as they account for the largest sales volume in this subsector; "mom-and-pop" outlets are included for productivity measurement only.

Exhibit 3

**DEFINITIONS AND EXAMPLES OF FOOD RETAIL FORMATS**

| Format | Characteristics | US examples | French examples | German examples |
|---|---|---|---|---|
| Hypermarkets | Self-service stores above 2,500 sqm* with a mixed food/non-food assortment | Wal-Mart Supercenters, Meijer Supermarket | Carrefour, Auchan | Real, Globus |
| Supermarkets | Modern self-service stores below 2,500 sqm* with an assortment dominated by food | Kroger, Food Lion | Champion, Intermarché | Edeka, Rewe, Kaiser's |
| Discounters | Food stores with a focus on low prices and limited assortment; store sizes around 500 sqm | No significant presence | Leaderprice, Aldi, Lidl, ED | Aldi, Lidl, Plus |
| General merchandise | Large-scale stores with a broad, mixed non-food assortment** | Target, Wal-Mart Discount Stores | No significant presence | No significant presence |
| Traditional stores | Independent enterprises and specialty stores | ← Residual class → | | |

* Due to data availability for the US, supercenters and warehouse stores were defined as hypermarkets, instead of relying on a distinction based purely on size

** Because general merchandise stores operate in a similar manner to hypermarkets, they are included in the food sector even though food is typically not sold in this type of store

Source: MGI analysis

¶ *Specialty apparel* – Focusing on clothing, footwear and accessory products, specialty apparel retailers account for 25 percent of apparel sales in the US, 52 percent in France and 54 percent in Germany. Other retail operations selling apparel, such as department stores, general merchandise and mail order are not included in this subsector as comparability is limited due to differences in product mix and operating models. Moreover, the apparel sales of mass-merchandise generalists (such as Wal-

Mart or Carrefour) are already included in food retailing. The companies in this sector are large store specialists such as C&A, small store specialists such as The Limited, H&M[4] and Pimkie, discounters such as TJ Maxx and Adler, and traditional, boutique-style apparel retailers (Exhibit 4).

Exhibit 4

**DEFINITIONS AND EXAMPLES OF SPECIALTY APPAREL RETAIL FORMATS**

| Format | Characteristics | US examples | French examples | German examples |
|---|---|---|---|---|
| Small format specialists | Chains with focus on small stores. Most offer few brands and show a high level of vertical integration | The Limited GUESS, Footlocker | Pimkie, Zara, Etam | H&M, New Yorker, Orsay, Zara |
| Large format specialists | Chains with focus on large stores. In Europe, most offer multiple brands; in the US, there are frequently single-brand stores | Gap, Abercrombie & Fitch | C&A, Devianne | C&A, Peek & Cloppenburg |
| Discounters | Chains with a focus on low prices; store sizes vary | TJ Maxx, Marshall's, Dressbarn | La halle aux vêtements, Kiabi | Takko, KIK, Adler |
| Traditional* stores | Independent enterprises, mostly boutique style and small local chains | ← Residual class → | | |

* Residual class (all retailers with annual revenues below USD/EUR 50 million)

Source: MGI analysis

- *Furniture and electronics* – These retailers sell consumer durables including furniture, home appliances and consumer electronics. Sample companies include IKEA, Darty and Media Markt.
- *Home improvement* – These sell products for DIY and gardening. Sample companies include Home Depot, Castorama and Hornbach.

## Methodology

Output is measured as gross margin, because this is the amount consumers effectively pay retailers for the service in addition to the cost of the actual products. Labor input is measured as hours worked. Although using value added as the out-

4 Average store sizes vary considerably between countries.

put measure would give a more complete picture of productivity, it cannot be used in cross-country comparisons due to variations in data quality and because different national shares of rented versus owned stores may significantly distort the measurements (see appendix for details on methodology).

## Scope

It is important to explain what exactly has been covered in this analysis, especially in the context of the overall report.

- *Performance* – Labor productivity growth was low in France and Germany (1.5 and 1.1 percent CAGR from 1993 to 2000, respectively). US growth over the same period was 2 percent and has been analyzed already[5]. Given the low growth rate, this analysis seeks to explain only the differences between the levels of labor productivity.
- *Capital productivity* – The share of capital cost over gross value-added varies between a third and a half; therefore, understanding capital productivity is important to gain a full picture of productivity comparisons. Although a number of issues surrounding data availability and definition consistency across countries make capital productivity measures unstable, some of the capital productivity estimates that we could produce led to similar results to those surfaced by the labor productivity analysis. (For example, capacity-restraining regulation increases labor as well as capital productivity.) The analysis that follows is therefore restricted to labor productivity differences.

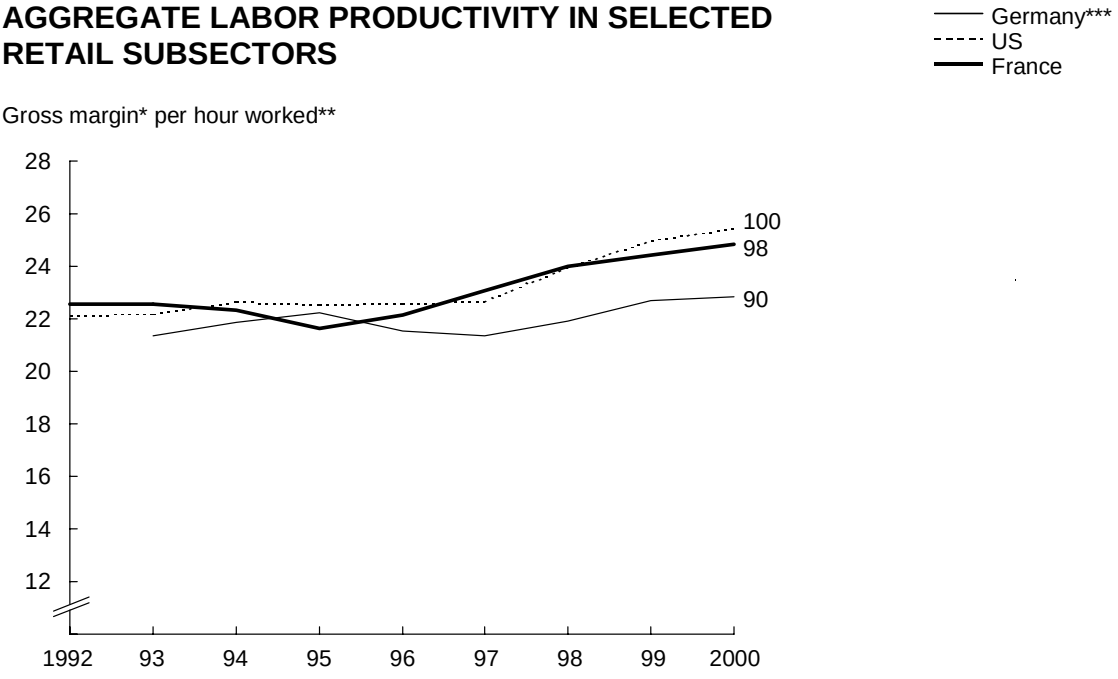
5 McKinsey Global Institute, "US Productivity Growth, 1995 - 2000", published in October 2001. Due to differences in methodology and the timeframe considered, growth figures are not immediately comparable with this report.

## LABOR PRODUCTIVITY PERFORMANCE

In 2000, aggregate labor productivity in the four subsectors was found to be highest in the US, 2 percent ahead of France and 10 percent ahead of Germany (Exhibit 5).

Exhibit 5

**AGGREGATE LABOR PRODUCTIVITY IN SELECTED RETAIL SUBSECTORS**

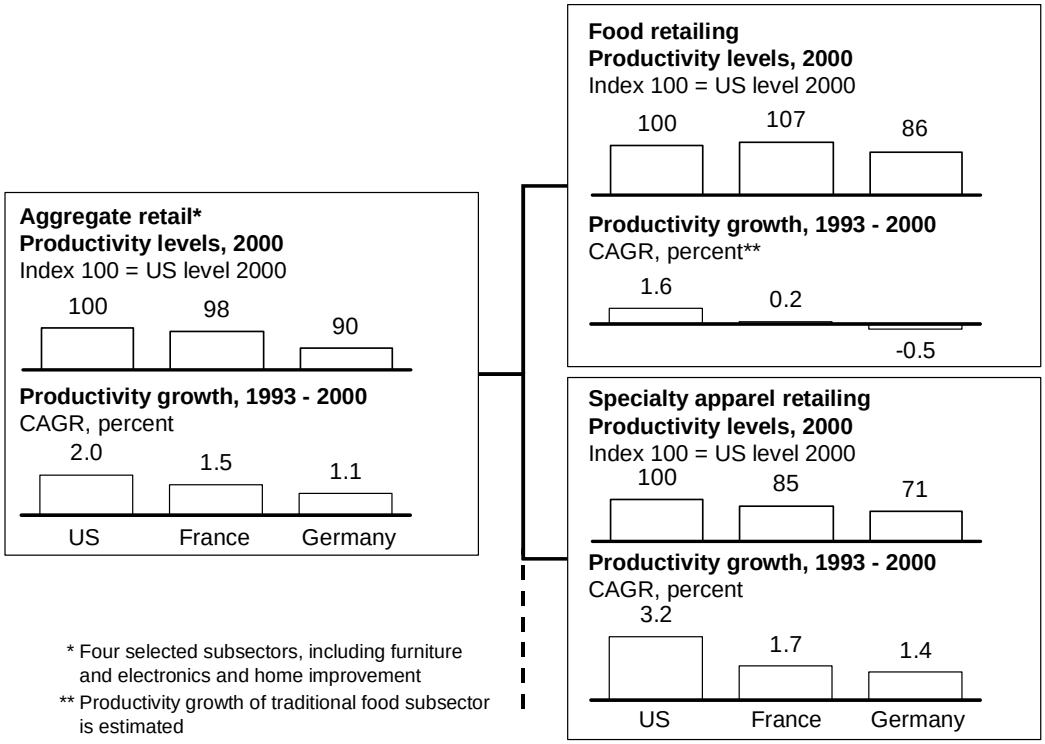



* In 1996 USD
** Aggregate for four selected subsectors (food, specialty apparel, home improvement, furniture, and consumer electronics)
*** Data for 1992 not comparable due to change in sector definitions by statistical agency
Source: Statistisches Bundesamt, BFS, IFH, EHI, INSEE, BEA, BLS, US Census Bureau, MGI analysis

For the two subsectors that were examined in depth, food retailing displayed productivity levels of 107 in France, 100 in the US and 86 in Germany. In specialty apparel retail, the US led productivity with 100, France came second with 85 and Germany third with 71 (Exhibit 6).

Exhibit 6

**PRODUCTIVITY LEVEL AND GROWTH OF SELECTED SUBSECTORS**




* Four selected subsectors, including furniture and electronics and home improvement

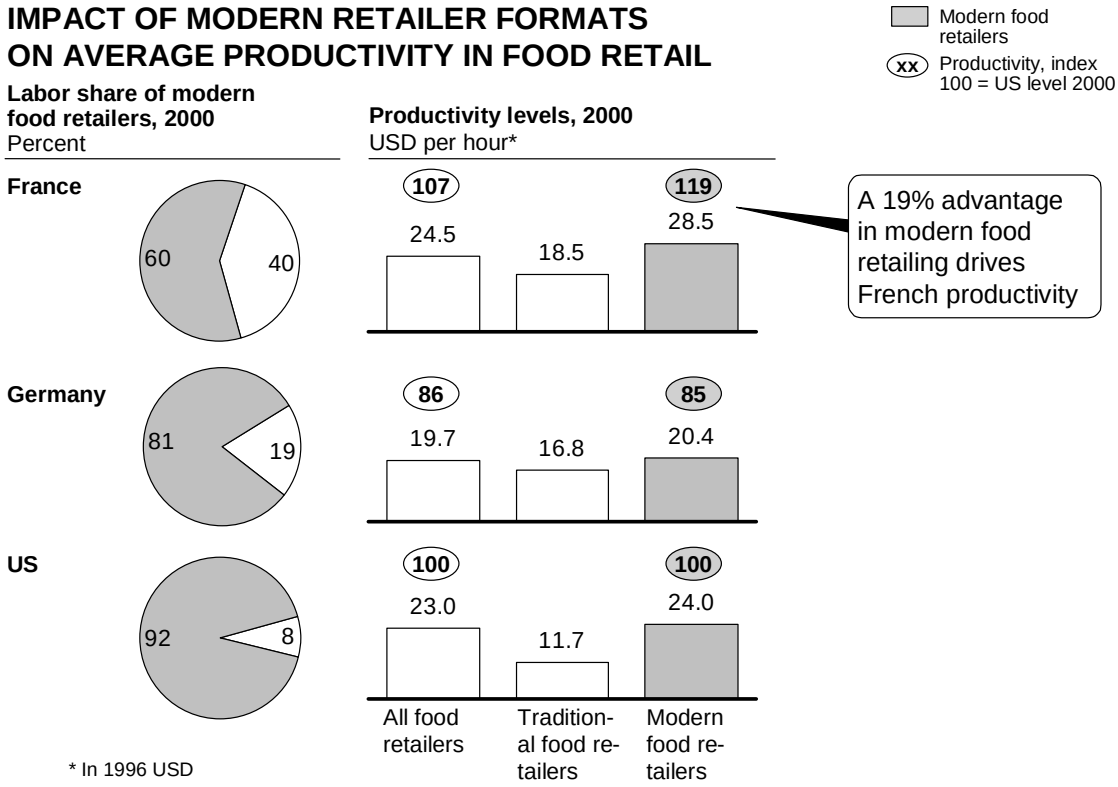
** Productivity growth of traditional food subsector is estimated

Source: BEA, INSEE, Statistisches Bundesamt, MGI analysis

The figures for food retail mask large productivity differences within the French subsector. France has a noticeably higher share of traditional stores than other countries, which lowers average productivity, but its modern retail formats are so much more productive that they more than compensate for this (Exhibit 7). There are three underlying reasons for the high share of traditional food retailers in France: Higher demand for specialty food stores, which are mostly owner-operated, the later emergence of supermarkets and similar formats compared to the US, and zoning laws that restrict the competitive pressure exerted by modern formats, which has slowed, though not stopped, the decline of traditional stores.

Exhibit 7

**IMPACT OF MODERN RETAILER FORMATS ON AVERAGE PRODUCTIVITY IN FOOD RETAIL**



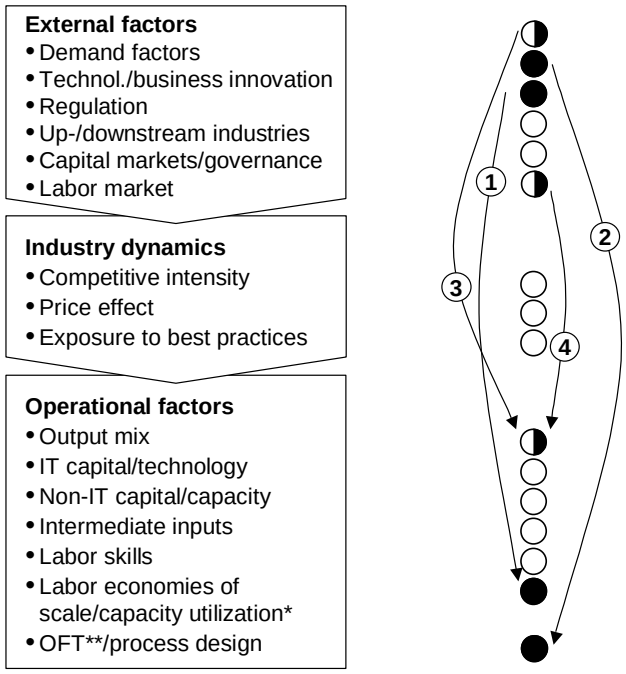

* In 1996 USD

Source: Statistisches Bundesamt, EHI, IFH, INSEE, BEA, BLS, MGI analysis

Although these zoning laws aim to protect traditional stores, they have the side effect of boosting productivity in the modern formats by forcing the increased utilization of existing stores. For food retailing, this report will focus on the causes for the large productivity differences in modern retail formats, because these are the most important channels in all three countries and are at the forefront of retail evolution. The following analysis of the firm-level factors and the underlying external factors gives a clear picture of the reasons for these productivity differences (Exhibits 8 and 9).

Exhibit 8

## CAUSALITY OVERVIEW IN MODERN FOOD RETAILING



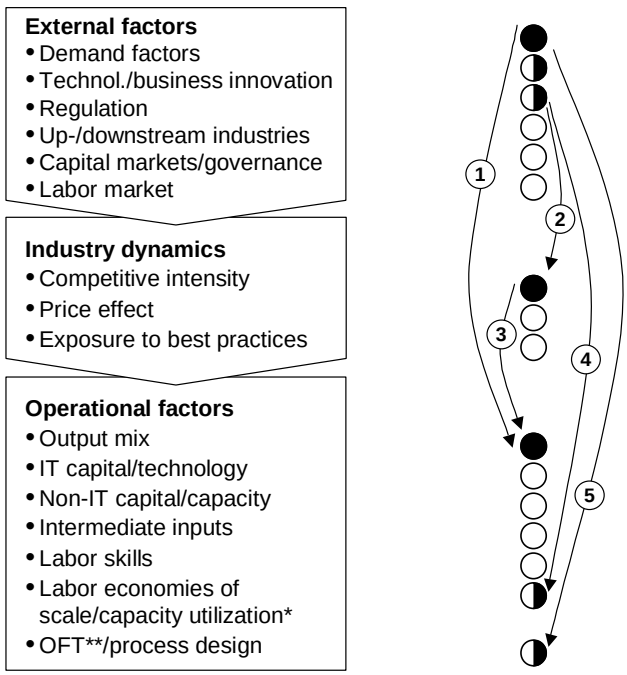

1. Zoning laws concentrate French sales on fewer stores and, therefore, increase utilization. Shorter opening hours have the same effect in both France and Germany
2. Differences in penetration of innovative business and IT systems result in lower productivity in France and particularly in Germany
3. Higher demand in the US enables retailers to sell higher-value goods, which increases productivity
4. Lower cost of labor for unskilled workers allows US retailers to provide more services. While these reduce average productivity, employment results are higher

* Labor economies of scale and labor capacity utilization
** Organization of functions and tasks

Source: MGI analysis

Exhibit 9

## CAUSALITY OVERVIEW IN SPECIALTY APPAREL




1. Higher demand in the US enables retailers to sell higher-value goods, which increases productivity
2. Zoning laws slow the expansion of shopping malls that potentially bring more productive formats, thereby competitive intensity is reduced
3. Specialty apparel retailers in France and, particularly, in the US face higher competitive pressure from mass-merchandise generalists. Increased overall competition has induced a shift towards more productive formats
4. Opening hour restrictions increase labor utilization in France and Germany
5. Differences in penetration of innovative business and IT systems result in lower productivity in France and Germany

* Labor economies of scale and labor capacity utilization
** Organization of functions and tasks

Source: MGI analysis

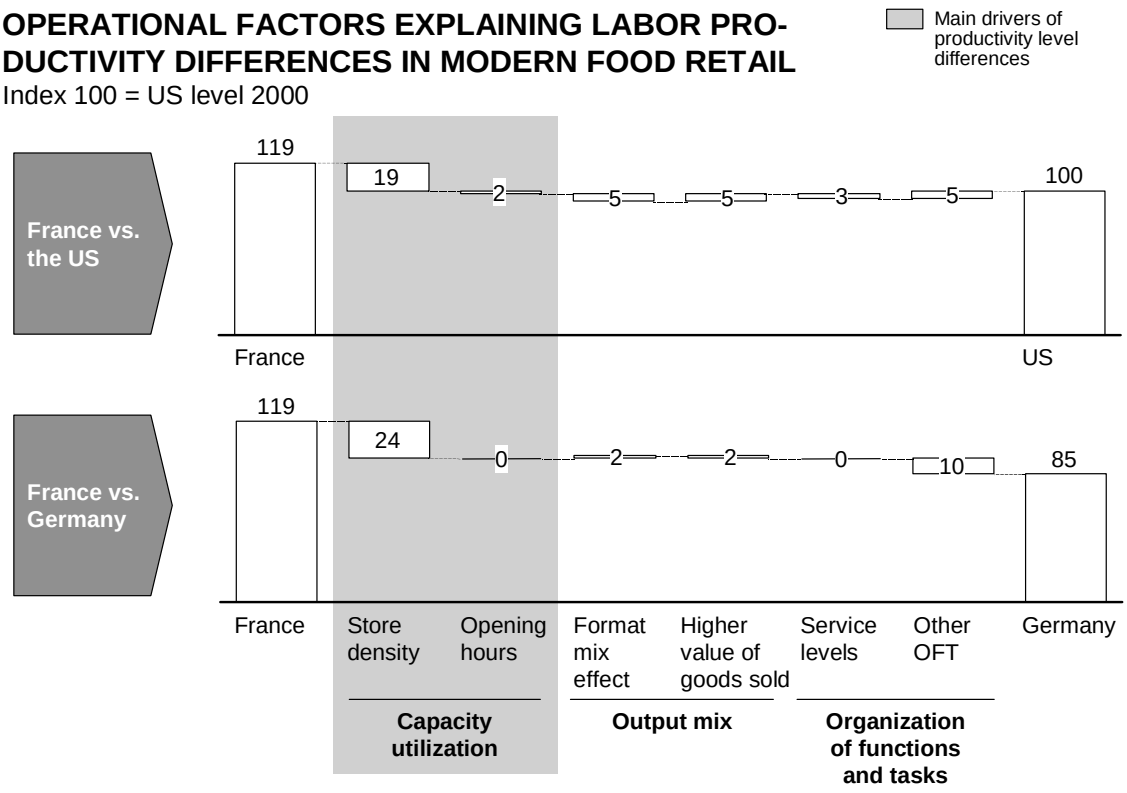
## Firm-level factors

At the firm level, differences in productivity between countries are primarily affected by capacity utilization, output mix, and the organization of functions and tasks (OFT). Capacity utilization primarily affects modern food retailing, while output mix explains most of the level differences in specialty apparel (Exhibits 10 and 11). OFT differences were observed in both food and specialty apparel retailing.

Exhibit 10

**OPERATIONAL FACTORS EXPLAINING LABOR PRODUCTIVITY DIFFERENCES IN MODERN FOOD RETAIL**

Index 100 = US level 2000

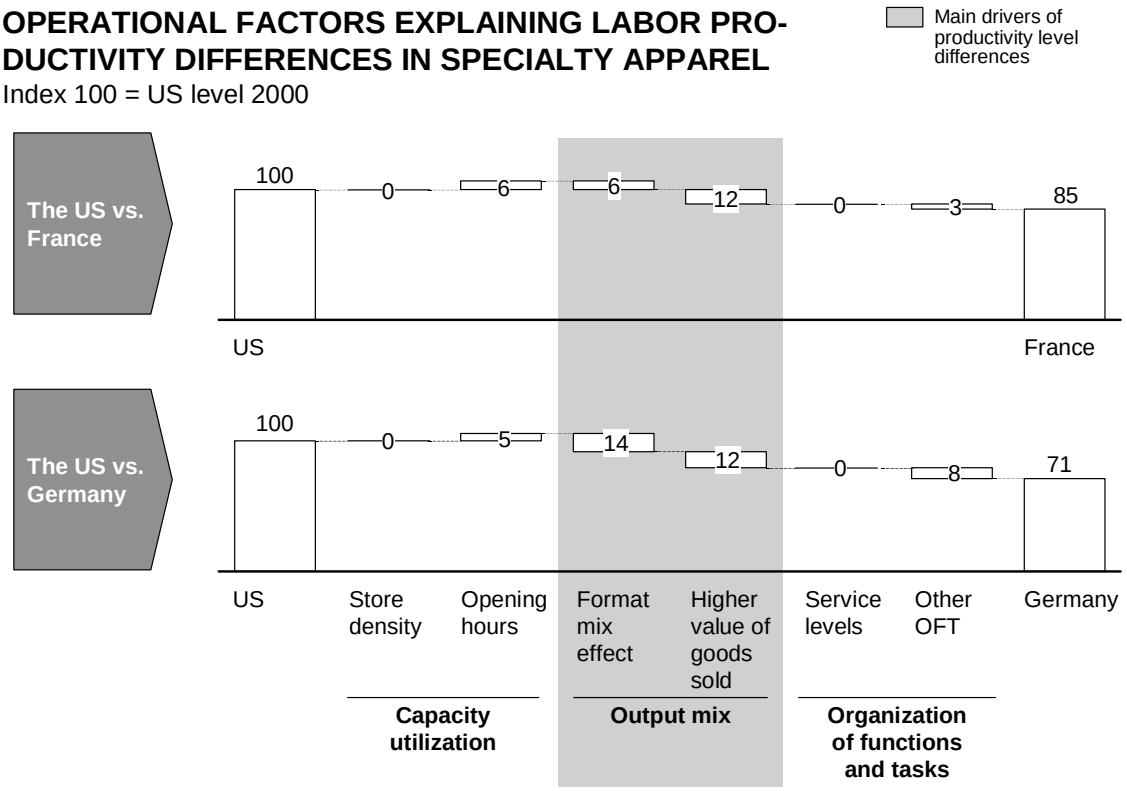



Source: MGI analysis

Exhibit 11

**OPERATIONAL FACTORS EXPLAINING LABOR PRODUCTIVITY DIFFERENCES IN SPECIALTY APPAREL**

Index 100 = US level 2000




Source: MGI analysis

*Capacity utilization.* This is the main driver of French productivity and results from a lower density of retail units compared to the US and Germany. Differences in opening hours also have a limited impact.

¶ *Lower store density* – This accounts for 19 percentage points of the productivity gap in modern food retailing between France and the US and 24 points between France and Germany.

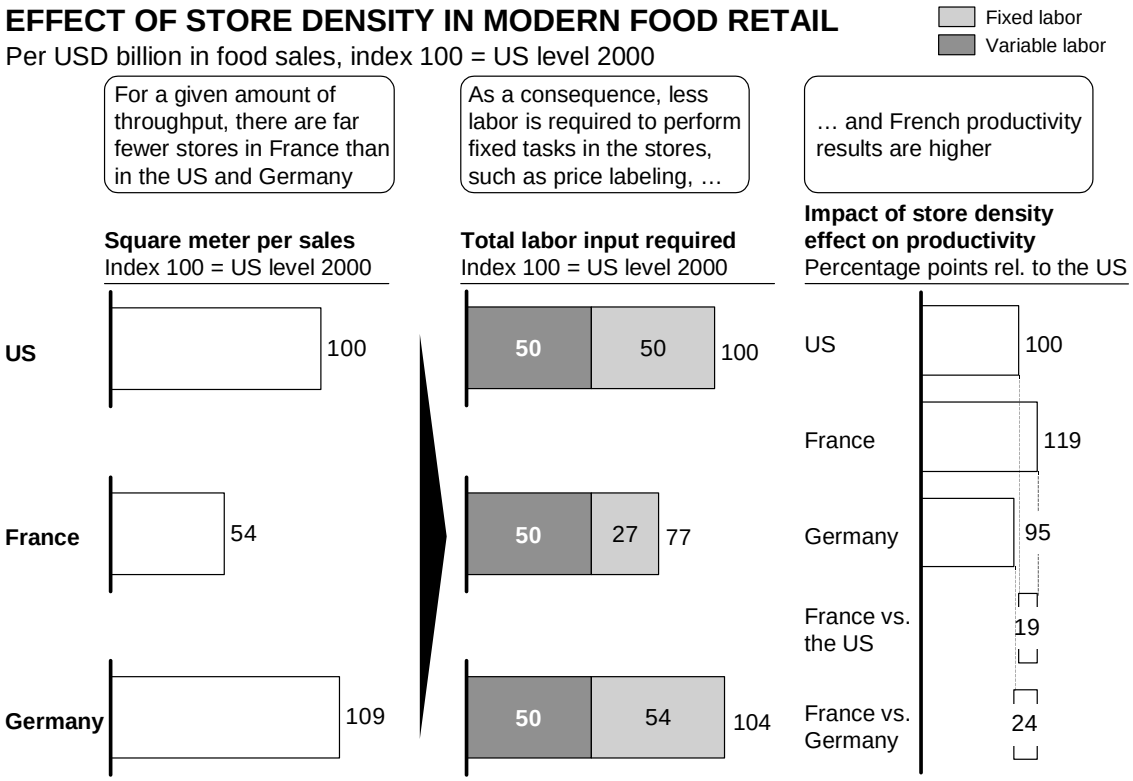
Certain tasks in retailing require a fixed amount of labor per store, such as shelf labeling, store management or cash-till manning during quiet times. A higher number of stores, therefore, would mean more fixed labor while variable labor would remain unchanged because the throughput would still be the same. Therefore, the total labor required would rise.

The amount of modern food retail space per unit of sales in France is 46 percent lower than in the US and 50 percent lower than in Germany (Exhibit 12). Retail space, therefore, has a far higher utilization in France and hence less fixed labor is required, accounting for only a third of total labor in France compared to half in the US. Productivity is consequently higher.

Exhibit 12

**EFFECT OF STORE DENSITY IN MODERN FOOD RETAIL**

Per USD billion in food sales, index 100 = US level 2000




Source: BEA, Trade Dimensions, Statistisches Bundesamt, EHI, IFH, INSET, MGI analysis

¶ *Longer opening hours* – These have a minor negative impact on US productivity of between 2 percentage points in modern food and 5 to 6 percentage points in specialty apparel relative to French and German retailers[6]. Longer opening hours require the stores to be staffed even at times of low customer traffic without a proportional increase in output.

In the US, almost all modern food shops are open on Sundays and some are open 24 hours a day, 7 days a week. On average, US stores are estimated to be open 130 hours per week. In France and Germany, shops are generally closed on Sundays and shut their doors no later than 10 p.m. and 8 p.m., respectively, during the week, reducing average opening hours to 72 and 65. US retailers, therefore, require more labor input, which is only partially offset by increased convenience for shoppers, incremental sales, and the subsequent higher margins.

US specialty apparel retailers hold stores open on average for 67 hours per week, German retailers for 59 hours, and French retailers for 57 hours. Although the differences in opening hours are not as large as in

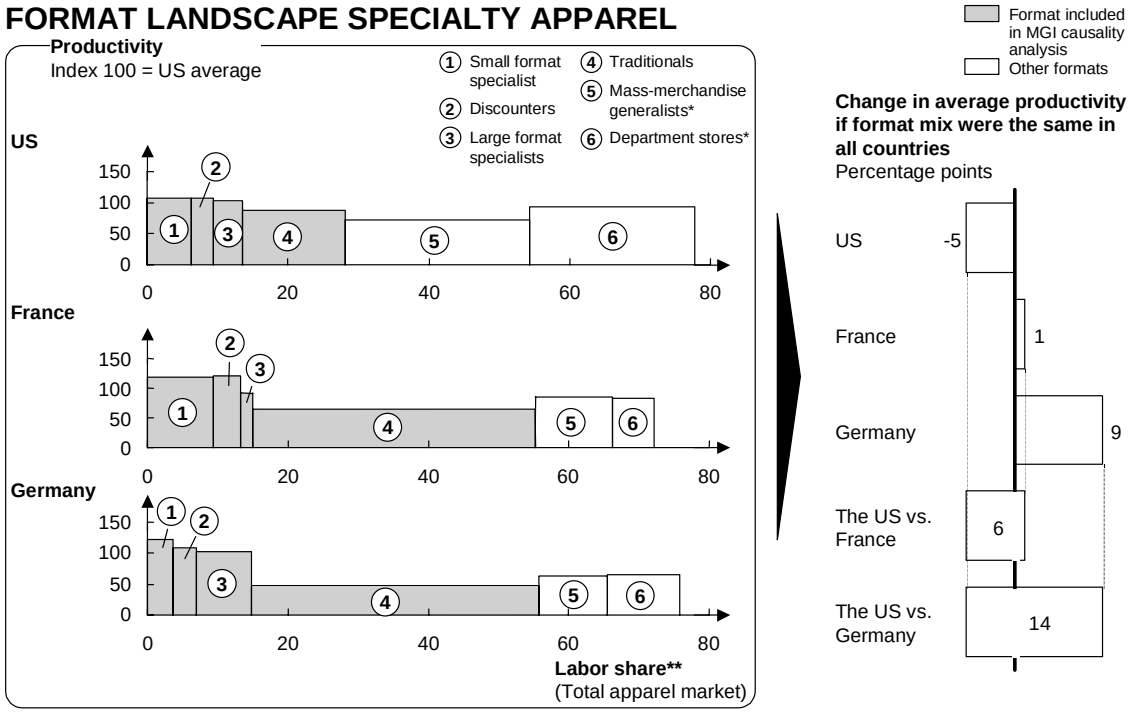
6 The effect of opening hours is less than that of store density because the share of work that varies with opening hours is far smaller than that replicated by additional stores. For instance, an additional store increases the total amount of work required to label shelves but this is not the case if opening hours are extended for an existing store.

modern food retailing, the effect on productivity is greater due to the larger number of small stores that require more labor to be kept open through night-time hours than a supermarket.

*Output mix*. This refers to the types of services offered (i.e., which kinds of stores are available and what kinds of goods are sold) and is particularly important in specialty apparel retailing. The US holds a distinct advantage because of the sale of higher-value goods and the lower share of traditional stores in the market.

¶ *Format mix* – The difference in the market share of different specialty apparel formats accounts for 6 percentage points of the gap between the US and France and 14 percentage points between the US and Germany (Exhibit 13).

Exhibit 13




* Department stores and mass-merchandise generalists show productivity of total operations

** Labor shares state shares of low productive players higher than market shares

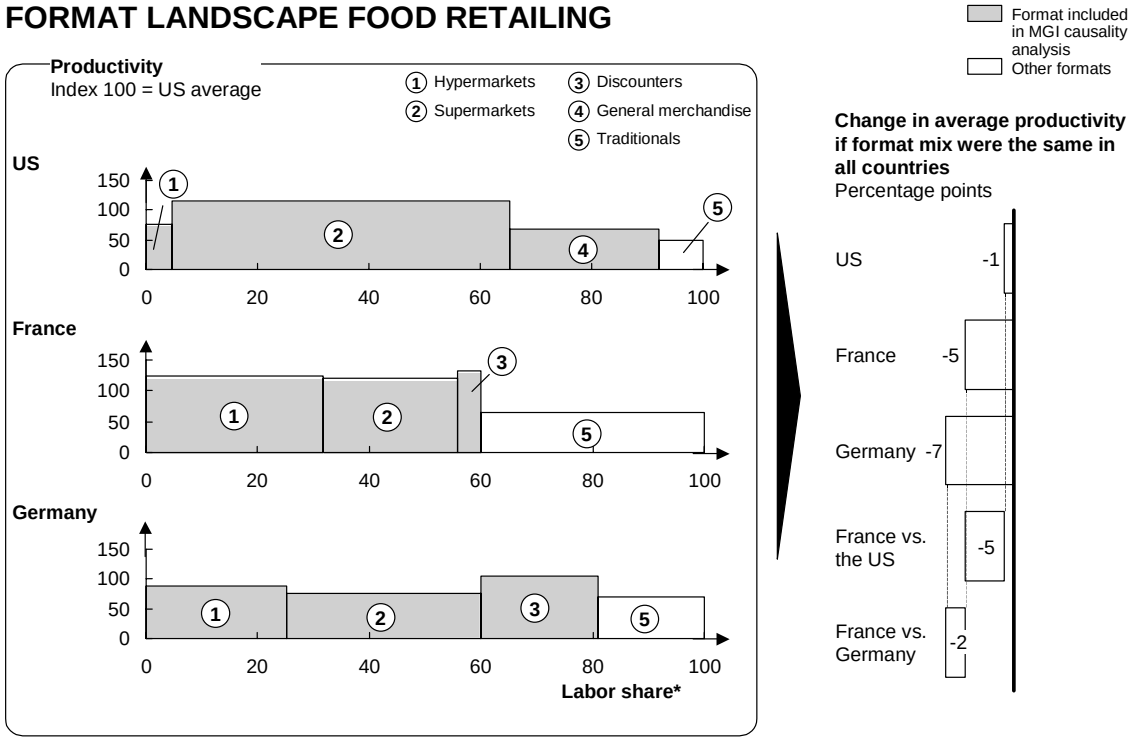
Source: US Census Bureau, Hoovers, Compustat, Chain source guide, Annuaire CTCOE, Diane, Textilwirtschaft, Klartext, Marcus, M+M Euro data, financial reports, MGI analysis

The productivity gap in specialty apparel attributable to format mix stems from the large share of traditional retailers in France and Germany that show low productivity and drive down average productivity. The result is exacerbated for Germany where traditional stores are 26 percent less productive than they are in France.

In modern food retailing, the format mix effects explain 5 percentage points of the difference between France and the US, and increase the gap between France and Germany by 2 percentage points (Exhibit 14).

Exhibit 14

**FORMAT LANDSCAPE FOOD RETAILING**




* Labor shares state shares of low productive players higher than market shares

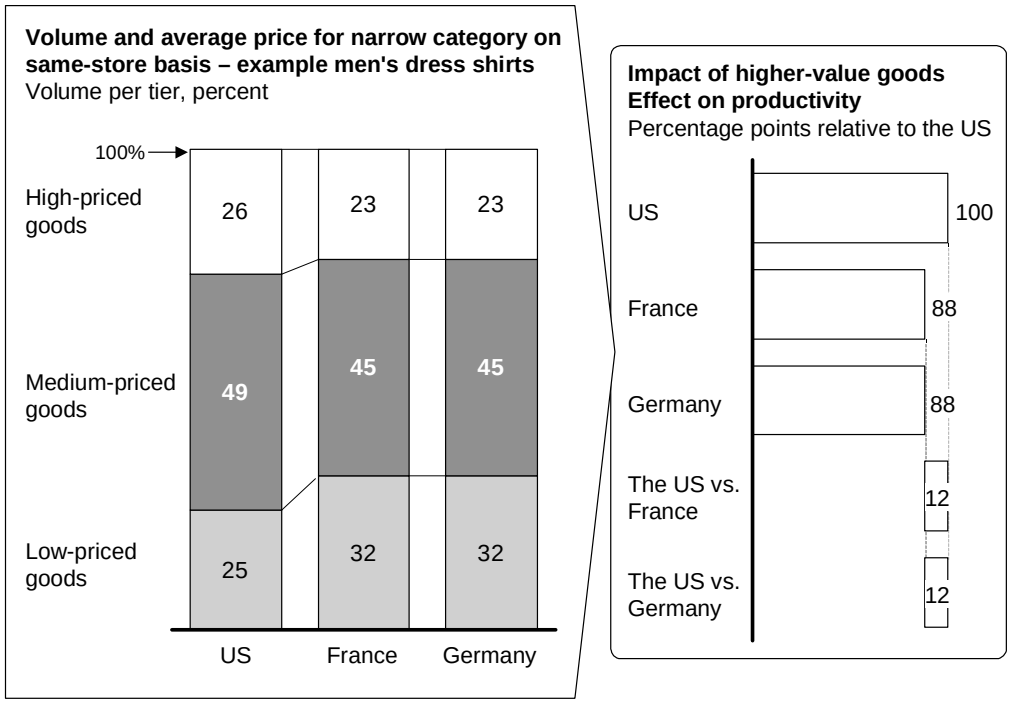
Source: INSEE, BEA, VNU, BLS, BFS, EHI, StBA, IFH, MGI analysis

¶ *Throughput of higher-value goods* – Higher output can occur by selling more units per hour or by selling units of higher value. US shoppers spend more than their European counterparts in absolute terms and, partly, on goods of higher value (Exhibit 15). This results in higher productivity because the labor input required does not increase proportionately[7].

7 Purchase of goods of higher value leads directly to productivity gains only where the retailer's underlying operating model does not change. When a shift between formats occurs (e.g., when a consumer buys a branded shirt from a high-street boutique instead of a private-label shirt from an apparel discounter), productivity differences are captured by the format mix adjustment. To exclude such effects, we based our analysis on pattern differences within narrowly defined product categories (e.g., the demand distribution for ground coffee or men's dress shirts) on a same-format basis.

Exhibit 15

## EFFECT OF HIGHER-VALUE GOODS – SPECIALTY APPAREL




Source: NPD, IFM, Industry data, MGI analysis

In specialty apparel, this effect increases US productivity by 12 percentage points relative to France and Germany. The effect is stronger in specialty apparel than in modern food retailing (where it accounts for only 5 and 7 points, respectively), because demand for clothing is more sensitive to changes in income and price ranges are larger.

*Organization of functions and tasks.* US retailers are 3 to 15 percent[8] more productive than their French and German counterparts, due to their progress in the use of innovative, highly efficient processes. In modern food retail, however, this effect is partially offset by the provision of low value-added services that are not available in Germany and France.[9]

¶ *Service-level differences* – Stores' efforts to improve the customer experience cause US productivity in general food retailing to be 3 percentage points lower than in Europe. US retailers provide services with a low value-added (such as checkout baggers), which are not provided in Europe, thereby diluting average productivity. Although the input

8 Depending on subsector and country under comparison.

9 In specialty apparel, differences in service levels are minor and not identifiable through particular tasks. For instance, bags are usually packed at a checkout even in France and Germany, even though the function of checkout bagger does not exist separately.

required for these extra services accounts for 8 percent of labor volume, MGI estimates that output increases by only 5 percent.[10]

¶ *Use of more efficient processes* – The remaining productivity gap is attributable to the higher penetration of more efficient processes in the US. In modern food retail, the US leads France and Germany by 5 and 15 percentage points, respectively, while the corresponding gaps in specialty apparel are 3 and 8 percentage points. Process innovation happened in three major areas. In order of importance, these are:

- *Merchandise management* – Choosing the right quantities of the right merchandise lies at the heart of retailing. Improvements have been achieved by tracking the performance of individual products to determine the optimal product mix and placement, promotions and markdowns, as well as better serving the needs of customers through, for example, provision of semi-prepared food. Labor productivity is increased as the only goods passed through the supply chain are those of high value to the customer; waste through discounting or discarding unwanted or surplus stock is avoided.

- *Supply chain management* – This has become increasingly important for retailers and most improvements have been made through process integration with suppliers. Highly responsive supply chains allow the alignment of production with dramatically increasing demand during promotions and, in specialty apparel, to support known winners during a season. Both help minimize waste and improve the average margin. Additionally, labor efficiency gains were achieved by reducing friction and lowering inventory levels. Some examples of reduced friction are clear labeling of content and destination on supplier deliveries, standardized containers, and automated picking systems. Lower inventory had a direct impact on labor productivity, as unnecessary transfers in and out of storage are eliminated.

- *Store management* – Improvements in store management, such as payment and labor scheduling systems, enhance the productivity of store operations by increasing speed at checkout and aligning staffing to demand.

Five exemplary innovations were found to account for up to half of the measured productivity differences (Exhibit 16).

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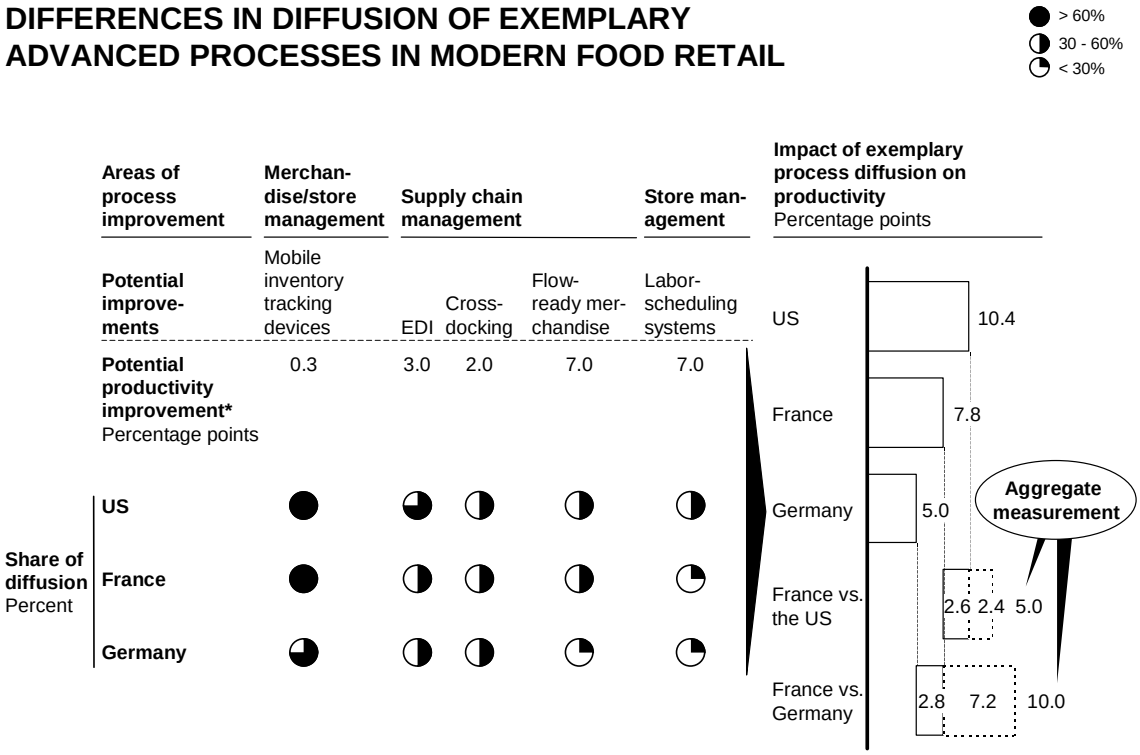
[10] In absolute terms, these services are profitable for US retailers, because 5 percent of output are worth more than 8 percent of labor input. Otherwise, these services would not be offered.

Exhibit 16

## DIFFERENCES IN DIFFUSION OF EXEMPLARY ADVANCED PROCESSES IN MODERN FOOD RETAIL




* Assuming industry-wide penetration

Source: Expert interviews, MGI analysis

## Industry-level and external factors

The regulatory environment, demand differences, and the pace of business innovation have had the greatest impact on shaping the differences in productivity between the US, France and Germany.

French productivity in modern food retailing has been boosted by regulations that have restrained capacity and, thus, increased capacity utilization and productivity. Labor laws in France and Germany have increased productivity further by precluding low value-added jobs. Both regulations improve productivity at the cost of lower employment and lower output.

US productivity has been driven by higher demand and a higher pace of business innovation. Moreover, more liberal zoning laws have increased the competitive pressure upon traditional specialty apparel retailers, which has caused less productive players to exit the market, thereby increasing average productivity.

*Regulatory environment*. French zoning laws have limited the expansion of modern food retailers, thereby preventing the erosion of retail space utilization. Laws on opening hours have concentrated sales into fewer hours, effectively restraining capacity in a similar manner. This has also served to restrict the amount of labor

employed and precludes retailers from capturing the additional margin potential that customers may be willing to pay in return for conveniently located stores or longer opening hours. Output is, therefore, diminished. Finally, minimum-wage regulation has prevented low value-added jobs in France and Germany, increasing average productivity, but further restricting employment performance.

¶ *Zoning laws* – The effect on productivity varies between modern food and specialty apparel.

- *Modern food* – French zoning laws were last tightened in 1996 and they were extended to new stores as small as 300 sqm (Exhibit 17).

Exhibit 17

**ZONING REGULATION**

| | US | France | Germany |
|---|---|---|---|
| **Level of regulation** | State/municipal | National | Federal/state |
| **Level of implementation** | Municipal | Municipal | Municipal |
| **Key elements** | • Planning and zoning regulation is the domain of states and, more frequently, towns. Criteria vary, but do not usually include assortment types, employment, or environment | • Since 1996, stores above 300 sqm have been subjected to an operating license (different from a building permit). The grant of a license depends on criteria, including effects on employment and the environment. Stores above 6,000 sqm are subject to public inquiry (Loi Raffarin)<br>• Before 1996, operating licenses required for stores above 1,000 sqm and criteria were limited to zoning and space planning | • Stores below 700 sqm can be approved with a simplified process<br>• Stores above 1,200 sqm are deemed to have a negative impact on city development, infrastructure, environment, etc., unless otherwise proven<br>• Regulation is particularly strict for "city-relevant" assortments, such as apparel |
| **Decision makers** | • Local planning and/or zoning boards | • Locally elected officials | • Municipal administration |

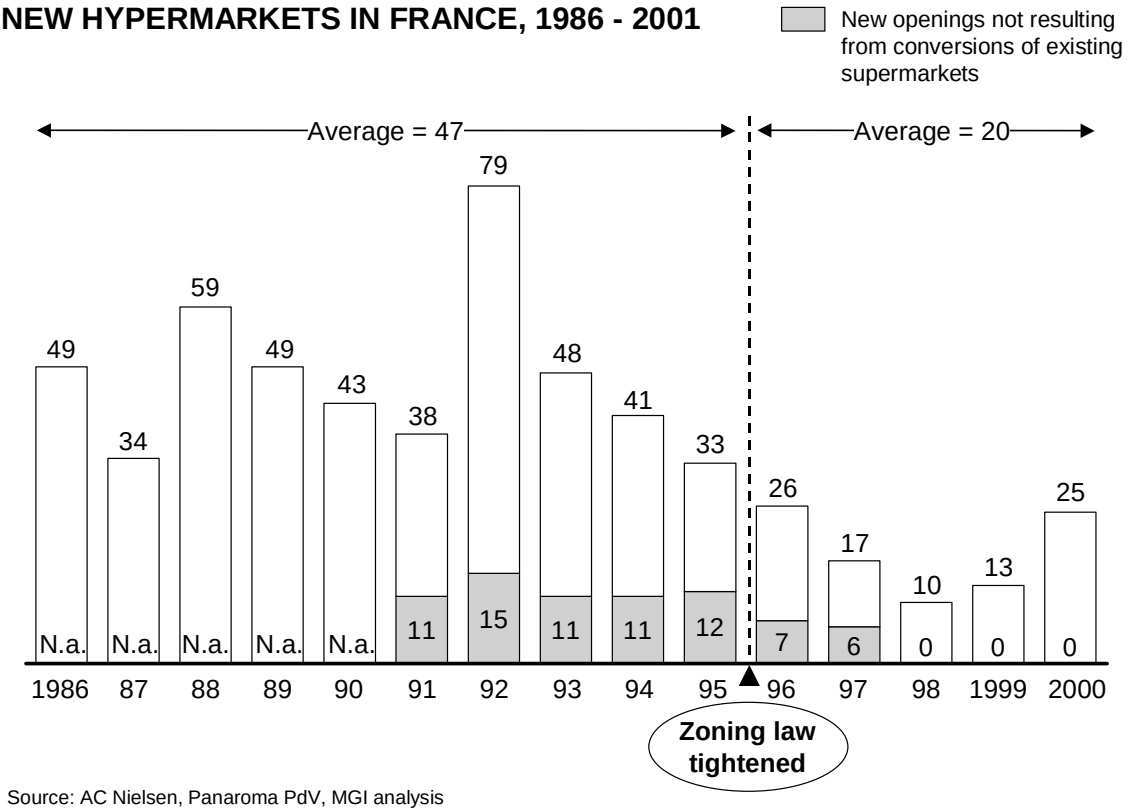
Source: BauG, BauO NRW, BauO BB, Notes Bleues de Bercy

Consequently, space growth in modern food retail has slowed to just 1.4 percent per year, from 3.2 percent in previous years. For hypermarkets, the growth rate fell even more dramatically from 4.5 to 1.2 percent per year (Exhibit 18). This restriction has resulted in low overall sales space and has contributed to French modern food stores maintaining 85 percent higher capacity utilization than in the US and 100 percent higher than that in Germany, with a corresponding effect on productivity. However, the regulation also acts as an entry barrier for new players with possibly more efficient processes, an outcome

underscored by the low market share of hard discounters, which appeared only relatively late in France's retail landscape and whose expansion has been strongly affected by zoning. In the long run, this slows the modernization of the retail industry.

Exhibit 18

**NEW HYPERMARKETS IN FRANCE, 1986 - 2001**




Source: AC Nielsen, Panaroma PdV, MGI analysis

Zoning laws in Germany are generally not as strict as in France and favor stores below 700 sqm, which are considered necessary neighborhood stores. This has benefited small supermarkets and particularly the hard discounters who operate these smaller stores. Driven by the format leaders Aldi and Lidl, the hard discounters have expanded their highly productive operations to a third of the market share. (In fact, the owners of Aldi have amassed a fortune second only to Wal-Mart's Walton family in the retail industry.) This rapid expansion, coupled with a large number of less productive owner-managed supermarkets that stay in business as long as they return a positive cash-flow, has largely caused the overcapacity in German food retail space, which, in turn, causes overall productivity to be so low.

- *Specialty apparel* – Zoning laws have restrained productivity in both France and Germany by protecting less productive traditional retailers

from their would-be rivals. US traditional retailers, on the other hand, face strong competition from general merchandisers and modern specialty apparel formats (frequently located in shopping malls), leaving only the most productive in business. In France and Germany, traditional stores still account for 29 and 33 percent of apparel sales and, on average, are 30 percent less productive than their US counterparts, which only account for 8 percent of sales.

General merchandise formats like Target, which sells a large share of apparel in the US, have never evolved in Europe. Their place is taken in some European countries by the large-format food retailers, in particular hypermarkets but, as we saw above, they face stringent zoning restrictions.

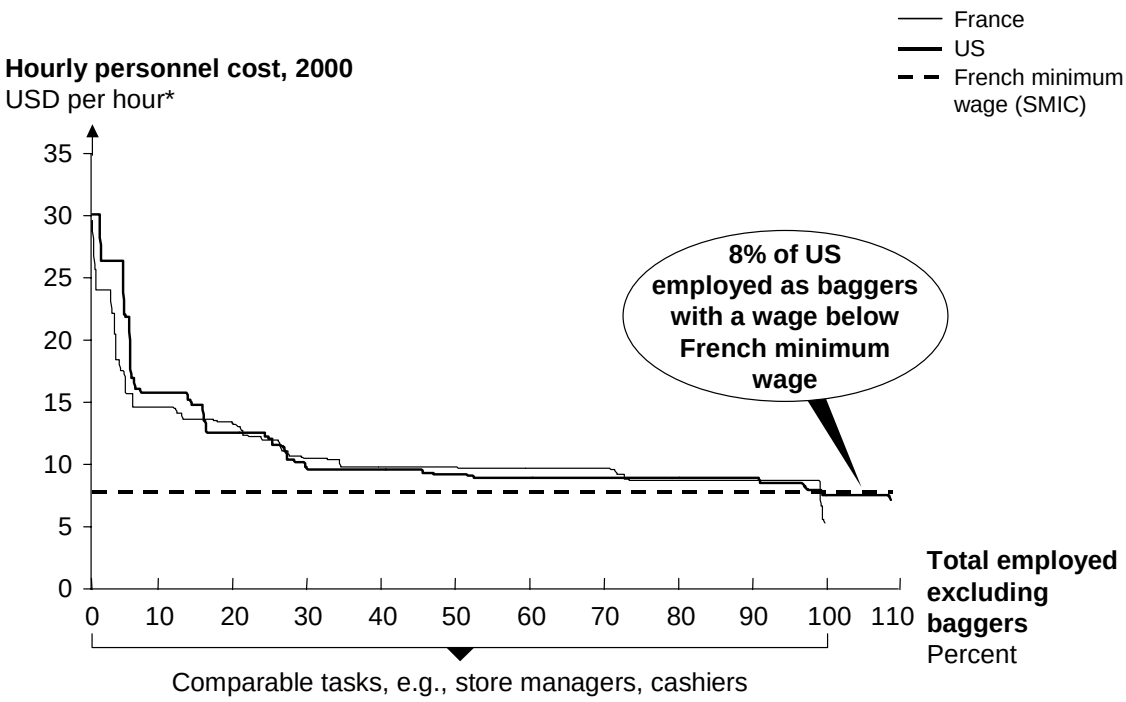
Finally, the expansion of modern specialty apparel formats is limited as there are few shopping malls that would allow for fast expansion of these companies. The concentration of apparel space in central urban locations restricts the locations available.

¶ *Labor market regulation* – The checkout baggers in the US are paid less than the French minimum wage (Exhibit 19).[11] Although data availability for Germany is limited, we believe that the minimum wage has the same effect as in France. The minimum wage, therefore, may restrict the kind of services provided. If French retailers were to provide bag-packing services compensated at the current minimum wage, the increase in cost would outweigh customers' willingness to pay for the service, particularly since European consumers are less wealthy than their US counterparts.

[11] The comparison takes into account average hourly wage cost including benefits but does not consider secondary labor cost (e.g., severance limitations).

Exhibit 19

**WAGE DISTRIBUTION IN FOOD RETAILING, FRANCE AND THE US, 2000**




* In 1996 USD

Source: US Census, INSEE, BEA, BLS, MGI analysis

¶ *Opening hours* – By prohibiting night-time and Sunday store operation[12], opening hours regulation has concentrated output in France and Germany into fewer hours per week. German law is particularly strict, as it forces store closures at 8 p.m. during the week and 4 p.m. on Saturdays and particularly affects hypermarkets, which find it difficult to exploit their broad assortment and attract rushed consumers, thereby contributing to their lower productivity relative to other formats in Germany. In France, opening hours from Monday to Saturday are more lightly regulated and stores are generally open until 9 or 10 p.m.

*Demand*. The economic boom in the US has increasingly allowed retailers to sell higher value-added goods as consumers have shopped for more expensive products in the same stores. Retailers need only minimal investment in labor to provide these higher-value goods and are, thus, able to increase productivity. This trend in demand has been shaped by higher wealth and higher consumption in the US and also by customers' different preferences on where to spend their income.

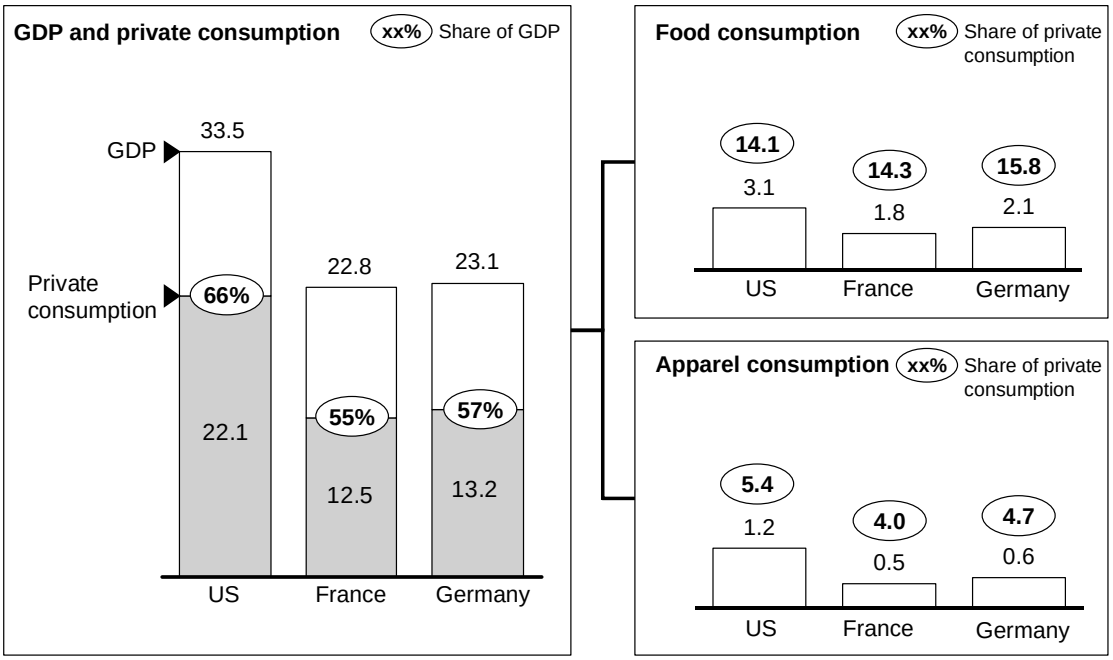
12 With some exceptions. In France, for instance, employment in retail outlets is prohibited on Sundays. Effectively, this prevents larger stores from opening, although they are theoretically allowed to.

¶ *Higher wealth and consumption* – GDP per capita in the US is higher than in France and Germany by 32 percent and 31 percent, respectively. US consumers also spend a higher share of GDP per capita on private consumption: 66 percent compared to 55 percent in France and 57 percent in Germany. This is partly attributable to different taxation systems, social security regulation, and a lower savings rate (Exhibit 20).

Exhibit 20

**DRIVERS OF DEMAND, 2000**

USD thousands per capita*




* In 1996 USD

Source: BEA, INSEE, Statistisches Bundesamt, MGI analysis

¶ *Allocation of income* – US customers shop more for apparel than their European counterparts (5.4 percent of total private consumption versus 4 and 4.7 percent in France and Germany, respectively), but the proportion spent on food is comparatively lower (14.1 percent in the US; 14.3 and 15.8 percent in France and Germany). This appears plausible because demand for clothing increases faster as consumers become richer.

*Managerial innovation*. The main inhibitors to the pace of business innovation in France and Germany have been adversarial retailer-supplier relationships, weak corporate governance, and high entry barriers for innovative players.

¶ *Retailer-supplier relationships* – Optimization of the flow of goods, which accounts for around 17 percent of the retail sales price, is possible only if retailers and suppliers work closely together. For instance, highly

accurate deliveries of goods by suppliers allow retailers to optimize shipments from distribution centers to the stores. This, in turn, is only possible if suppliers are given the means to predict the retailers' demand.

Improvements of this type require not only the exchange of operational data, such as demand forecasts, but because specific investments and fixed costs are incurred by both suppliers and retailers, relevant cost information must also be exchanged to share the benefits equitably.

An international survey on commercial relationships between retailers and manufacturers shows a bias towards combative and non-transparent negotiations in France and Germany (Exhibit 21). Retailers in these countries are reluctant to cooperate with suppliers and tend to negotiate almost exclusively for price reductions instead of reducing overall cost, thereby forgoing potential for operational efficiency.

Exhibit 21

**QUALITY OF SUPPLIER RELATIONSHIPS IN GROCERY RETAILING**

● Excellent cooperation
○ Limited cooperation

| | Characteristics of negotiations | Overall quality of supplier relationships |
|---|---|---|
| **US** | • Tendency to look for and exploit win-win areas, with some leading-edge examples of partnerships (e.g., Wal-Mart)<br>• Legal environment ensures some degree of fairness of starting conditions, supplier must not discriminate in price without differences in performance (Robinson-Patman Act – currently only enforced through private litigation)<br>• The set of on-invoice discounts is de facto standardized, collaboration funds still function as off-invoice discounts | ◑ |
| **France** | • Bias towards confrontational approach, with crises that have led to delisting of even major brands (e.g., Coca-Cola)<br>• Although on-invoice discounts are standardized as mandated by law (the Loi Galland), off-invoice discounts, such as listing fees and advertising contributions, are heavily used<br>• Achieving additional on-invoice bonuses can only be achieved through increase in volume | ◔ |
| **Germany** | • Bias towards confrontational approach; negotiations often include demands for further bonuses for reasons that are unrelated to performance<br>• No legal framework mandating disclosure of price lists or discounts offered by suppliers<br>• A wide range of discounts exists in the market | ○ |

Source: McKinsey survey

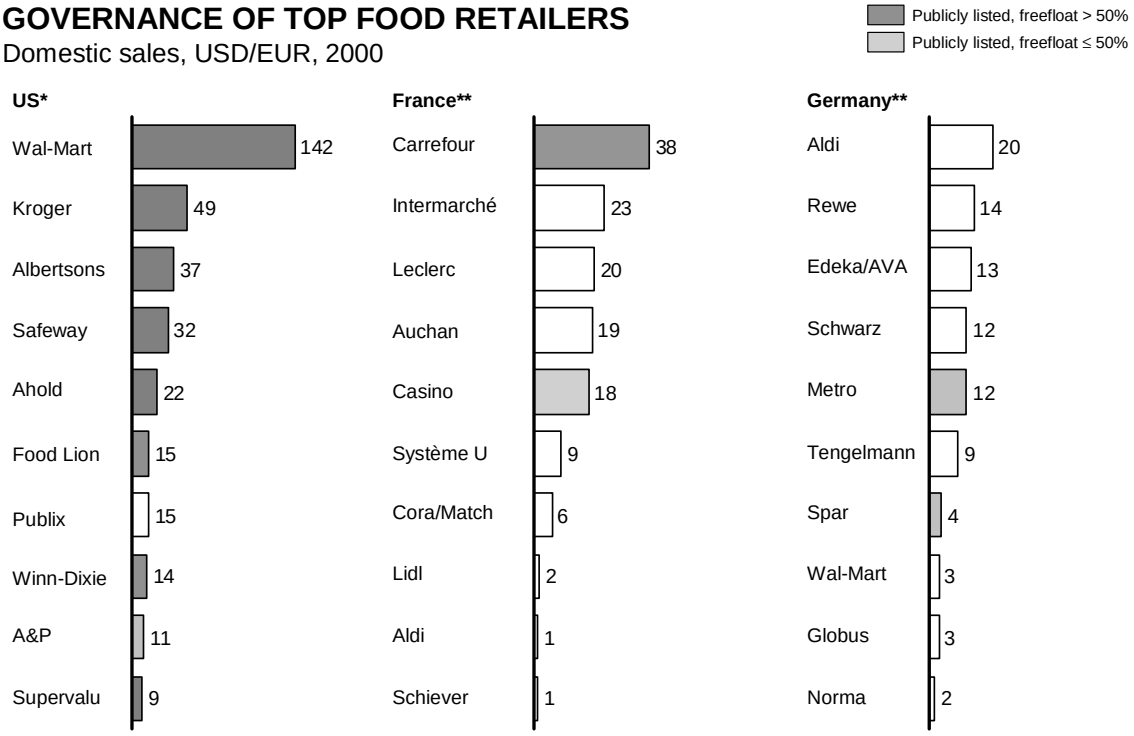
Given the current quality of interaction, both retailers and suppliers are reluctant to share data for fear that it may be misused by the counterpart to bargain for more favorable pricing. Although negotiations in the US are no less focused on price, they are characterized by higher transparency and an increased willingness to exploit efficiency gains together.

¶ *Weak corporate governance* – Overcapacity has developed in the German market due to lack of capital market pressures on senior management. This means that profits are tight, limiting the possibility for long-term efficiency investments. The majority of the German and French retail market is not listed on the stock market and owners are reluctant to consolidate, preferring to operate with very small profit margins (the average profit margin in the German market is estimated at 0 to 1 percent) (Exhibit 22).

Exhibit 22

**GOVERNANCE OF TOP FOOD RETAILERS**

Domestic sales, USD/EUR, 2000




* Net sales
** Gross sales
Source: Progressive Grocer, M+M Eurodata, Hoover's, company information

¶ *Entry barriers* – The high entry barriers in the French and German retail markets have kept innovative new retailers from gaining enough market share to trigger a change in the behavior of existing retailers[13].

In Germany, market access is difficult as expansion in attractive locations is currently not available either through acquisition or organic growth. Opportunities to buy existing retail space are scarce, as the predominantly private owners are unwilling to sell. Organic growth from a

[13] Although Aldi and other hard discounters can exert a significant amount of pressure, their process innovations are transferable to only a limited degree. Hard discounters reduce complexity by selling only around 1,000 SKUs (stock keeping units), whereas super- and hypermarket formats sell 25,000 to 100,000 SKUs.

greenfield operation is also difficult due to the lack of suitable locations (the market is already faced with significant overcapacity) and strict zoning laws.

In France, as described previously, zoning laws have restricted the opening of new sales space. The possibilities for organic growth of new entrants are, therefore, limited.

## THE ROLE OF IT

IT plays a key role in efficiency improvements, as advanced processes used to manage several thousand products at various stages in the supply chain require the detailed information provided by IT systems. Among the broad range of process innovations in retail, we estimate that 60 percent were enabled by software and hardware that was introduced after 1990. Examples are:

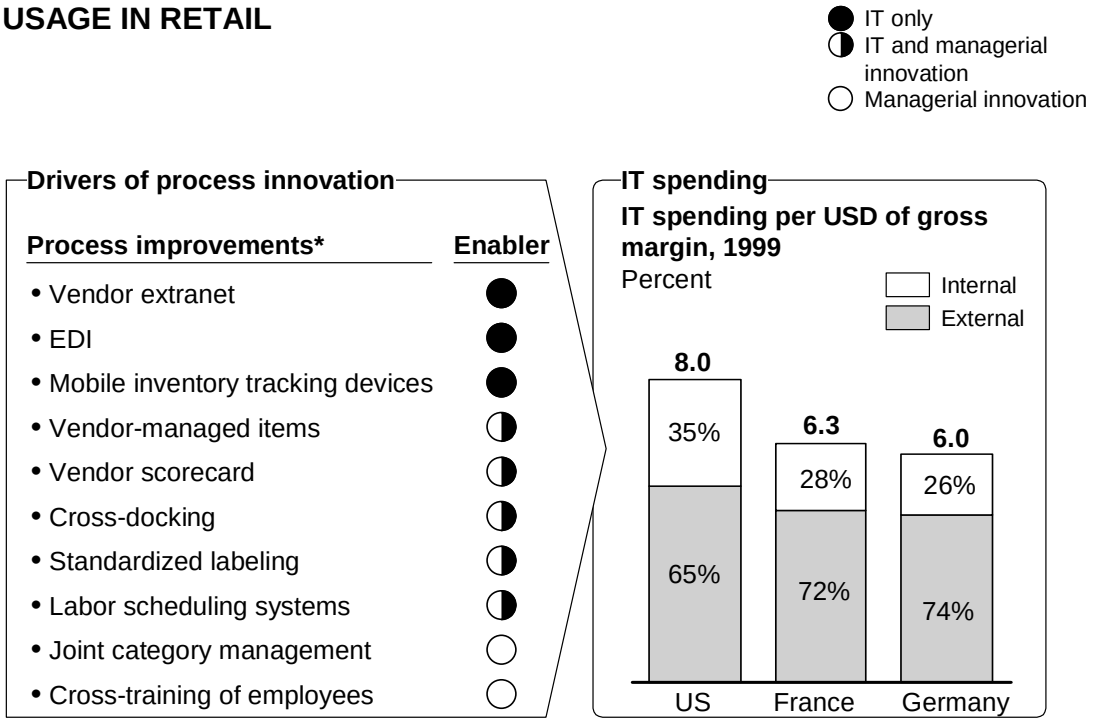
- Large-scale data warehouse solutions improve merchandise management.
- Extranets for suppliers and collaborative forecasting tools permit more efficient supply chain management.

Packaged software played a minor role, as most retailers still rely on their proprietary systems to manage the complexity of their business. Packaged software is mainly employed where highly specialized skills are necessary, such as in the analysis of consumer behavior patterns.

The lower process innovation in France and Germany discussed earlier also leads to lower IT investment: Compared to the US, IT spending as a proportion of output is 13 percent lower in France and 15 percent lower in Germany (Exhibit 23). Insufficient IT investment, as such, does not explain why French and German retailers have been slow to adopt best-practice processes, however, the productivity gaps related to IT usage in modern food retailing are 3 percentage points for France and 6 for Germany. As retailers in France and Germany move to capture the productivity potential in advanced processes and close the gap to the US, technology will play an increasingly important role.

Exhibit 23

## IT USAGE IN RETAIL




* Selection

Source: Gartner, PAC, MGI analysis

## OUTLOOK AND RECOMMENDATIONS

Whether labor productivity levels in France/Germany and the US will converge depends on changes in regulation, the leveling of demand differences, and the increasing application of best practices by French and German retailers.

### Regulatory issues

Regulation has a strong impact on the productivity of French and German retailing, although the effect is not one of mechanically decreasing productivity. Rather, a set of implications has to be seen in context to evaluate the impact of regulation. The regulatory issues examined are enacted to achieve social goals; but there are trade-offs with productivity or employment, depending on the type of regulation and the subsector.

- *Zoning* – Six years after last tightening the law, French policymakers should review whether it has had the desired effect. Is it possible that consumers have increasingly shopped at large food retailers *despite* the reduced convenience, with the result that traditional retailers have already been driven out of business, while large retailers have created only little additional employment? If so, relaxing the zoning laws can be expected to have a positive effect on output. The likely upsurge in sales space would result in declining productivity but a net increase in employment would compensate for this.

  In Germany, relaxing the zoning laws would be unlikely to have a strong effect because existing food retail space is already high. However, it could help spread best practices, as retailers with high operational efficiency would find it easier to expand, and it might accelerate industry consolidation.

  In specialty apparel, laxer zoning laws would have broadly similar effects in both countries: An increasing share of apparel would be sold in out-of-town stores, thereby increasing productivity and reducing city center vitality.

- *Opening hours* – Restrictions in France are largely aimed at protecting traditional retailers. It is unclear whether existing chains would exploit liberalized opening hours to a large extent, except on Sundays. The resulting net effect on employment would probably be small.

  In Germany, the regulation is designed to protect employees from after-hours work. More service- (and employment-)intensive formats can be expected to expand opening hours to differentiate their offering from discount retailers. In particular, hypermarkets would be able to exploit their broader assortment better.

- *Minimum wages* – Altering regulation to reduce labor costs for low-skilled workers in France and Germany would result in more services and, therefore, more employment particularly for low-skilled labor. In the medium term, employment is unlikely to reach the high levels seen in the US because Europeans are expected to be less willing to pay for low value-added services due to their lower income levels.

**Demand**

Demand is largely dependent on macroeconomic factors that lie outside the scope of this study. Given the ongoing debate about sustainability of consumption in the US, it is interesting to explore the effect that a strong decrease in consumer spending would have on retail productivity. US retailers would come under pressure from two fronts. First, consumers would revert to buying lower-value goods. Second, and more importantly, the installed capacity of retail space would be slow to adapt to lower spending because it is harder to close a store in bad times than it is to open a new one in good times. The associated fixed labor would therefore remain in place. If there were to be a sudden decline in demand of 5 percent, the combined impact of these two effects would reduce productivity in US modern food retailing by an estimated 2.5 to 3.5 percent.

**Key success factors for retailers**

To improve productivity further, retailers in France and Germany should concentrate on reaping the rewards along the supply chain by optimizing the selection and the flow of goods and fully rolling out advanced processes. European industry leaders should take the chance to cherry pick successful business innovations that have already been implemented in the US, but in doing so need to address the specifics of the French and German business environment. To capture the full potential, two approaches are important:

- Process integration will require trust-based relationships. Access to other party's data or detailed analysis of each others costs and benefits can only be done, when there is security in the knowledge that the information shared will not be misused to bargain for further discounts. Selection of key partners and step-by-step implementation of collaborative processes, starting in low-risk areas will build the skills and trust necessary to gain productivity in the supply chain.

- The large-scale implementation of advanced processes will invariably require stepping up IT investments and acquiring the corresponding skills. Retailers must go a step further, however, as the complex and rapid flows of goods between a multitude of suppliers and retailers induced by better IT, leave little scope for exceptions. This should

prompt a call for the industry-wide standardization of interfaces and processes. In Germany, retailers may need to consolidate further to release resources for investing in and implementing advanced systems.

As large retailers increasingly expand outside their home markets, it is tempting to think that the conclusions from this report on domestic productivity drivers can be readily extended internationally. However, the findings on the regulatory environment show that structural effects can far outweigh whatever operational advantages new entrants possess over well-entrenched competitors. This means that expanding retailers need to thoroughly adapt their operating model to the prevailing conditions, and, even then, expansion into saturated markets (like Germany) may require significant investments and a long-term view before breaking even.

## APPENDIX: MEASUREMENT AND DATA SOURCES

Several measurement complexities, well known to both academics and government agencies, exist in retail. There are two main problems: The first is that there is no direct measurement of the volume of services sold by retailers, which is distinct from the volume of goods sold. The second issue arises only in cross-country comparisons. As retail is not a tradeable service, i.e., consumers cannot import retail services from another country[14], the price of retail service is potentially different from country to country but is not captured by retail-specific Purchasing Power Parities.

### Productivity measurement within countries

To assess retail trade output, MGI used real gross margin. Gross margin is effectively what consumers pay retailers in addition to the cost of the purchased goods. In fact, retailers with higher service levels (for example, longer opening hours or more sales staff) typically command a higher margin. Data on gross margins provided by national account statistics is reliable, with the exception of modern food retailing in Germany, for which MGI used data provided by industry associations and research institutes to construct a valid and representative time-series of gross margins. The definition of gross margin as revenue minus cost of goods sold is broadly consistent across the three countries. Although using value added would give a more complete picture of productivity, it cannot be used in cross-country comparisons due to varying data quality and because differing shares of rented versus owned stores may significantly distort measurement.

To eliminate the effects of inflation, nominal gross margin was deflated with the consumer price index published by the national statistics bureaus, following an opportunity cost rationale: Consumers can choose to spend additional income on additional retail services or on other items and, therefore, arbitrage away differences in price changes across spending categories. A specific deflator for retail services does not exist due to the difficulty of measuring retail service, as mentioned above. Product-specific deflators, such as the food price index, measure the price variations of goods plus retail service, where the first constitutes the larger share. Fluctuations in the cost of goods, for instance due to food health scares, would therefore distort the measurement of retail service if product-specific indices were used.

Labor input was measured as hours worked and computed from data provided by the national statistics institutes. Adjustments for outsourced labor were not made,

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[14] While importing retail service is theoretically possible in the emerging segment of online retailing, shipping costs effectively preclude imports on a significant scale.

since most labor is employed in the stores and there are no indications for differences in outsourcing sufficiently large to distort the productivity measure significantly.

**Productivity comparison across countries**

For cross-country comparisons, MGI used private consumption Purchasing Power Parities (PPPs) published by the OECD. Product-specific PPPs are not appropriate for the same reasons applicable to price indices as argued above. However, since retail services are not tradeable across countries, the assumption that price differences relative to other consumer spending items are similar across the three countries, which underlies the use of private consumption PPPs, need not hold true. MGI therefore conducted extensive analysis of the drivers of prices for retail service (gross margin) across countries. Differences in service quality were found to explain the major share of apparent price differences, whereas differences in input prices or other effects play a negligible role. Consequently, private consumption PPPs were deemed a good proxy for retail service PPPs.