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Invited paper

The Otus theory of hotel demand and supply☆

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ABSTRACT

The structural balance of an economy and the economic policies that influence its development are shown to be determinants of the volume and structure of hotel supply. Similarly, these features of an economy are also shown to be determinants of the volumes of domestic hotel business and leisure demand.

1. Introduction

The Otus theory of hotel demand and supply is designed to make sense of developments in the size and structure of the hotel business and its medium to long-term prospects. The theory predicts that within an economy, the greater the contribution of service businesses to gross domestic product (GDP) then the greater the domestic business demand for hotels, the greater the domestic leisure demand for hotels, the greater the supply of hotels, the greater the concentration of hotels in brands and the greater the diversity of branded hotels. To explain the Otus theory and provide a glimpse of the relationships between economic structure, hotel demand and hotel supply this paper is organised into three inter-related parts. First, I will discuss the structural development of economies in which hotel businesses operate, I will next analyse the supply profile of hotel venues and brands and then, I will review the sources and volume of demand for hotels.

2. Economic structure

During the cyclical downturn in the British economy in the early 1990s, the rate of growth in the room stock of publicly quoted hotel chains was uncoupled from total GDP growth as Fig. 1 illustrates.

This was counter to the prevailing orthodoxy that in a cyclical downturn hotel demand collapses as does the growth in hotel supply. There needed to be an interpretation of why hotel chains continued to grow their portfolios. Fortunately, Britain was in a period when the structural balance of the economy was shifting from a reliance on manufacturing and government funded services towards service businesses, which were becoming the main driver of demand, employment and GDP growth. Thus, the analysis of economic structures and their impact on hotel demand and hotel supply was begun and over the past 15 years it has been refined and continues to be refined.

The starting point for the analysis is the basic economic notion codified as The United Nations International Standards of Industrial Classification (2006), which arranges economic activities into three broad segments:

- primary: agriculture and fisheries;
- secondary: manufacturing, extractive industries, construction and utilities;
- tertiary: all services.

Employment in each economic segment is different. It requires different knowledge and skills and it involves different relationships with the land, with machines, with colleagues and with the buyers of their output. As the balance of an economy ascends through the economic stages so its structure becomes more complex and diverse. At any one time within any economy some economic activities are in a period of growth, others are in decline and yet others have not emerged. There are skills and jobs that are in demand to deliver the economic output, others that are in decline and vanish and others that have yet to emerge. As a result, the availability of products and services is not constant and their provision and consumption is not uniform. The economic activities and jobs are the building blocks of economic structure. As they change so do patterns of provision and consumption and vice versa.

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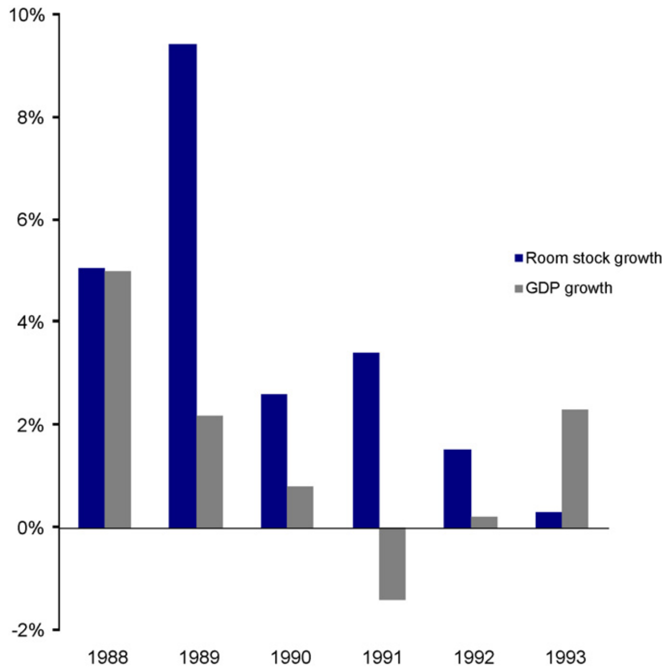

Fig. 1. UK Hotels Plc Room stock growth and UK GDP growth 1988–1993. *Source*: Kleinwort Benson Securities, Quoted Hotel Companies 1987–1993 and the International Monetary Fund.

Tertiary activities are different in kind from primary and secondary activities. At the core of the difference is that tertiary activities are concerned with the provision and distribution of services whereas primary and secondary activities produce both durable and non-durable goods. Tertiary activities are more diverse than secondary activities, which in turn are more diverse than primary activities. Within primary activities the dominant work interaction is between the worker and the land. Within secondary activities the dominant interaction is between the worker and the machine. In tertiary services, the crucial relationship is between people. Operational interaction with colleagues is necessary for the provision and delivery of most services as is the interaction between the providers of services and the consumers of the services. Reflecting this, services involve more mental work than the manual work that is characteristic of primary and secondary activities and consequently more white-collar work than blue-collar work.

Economists traditionally assumed that the range of tertiary activities is more homogeneous than in fact it is. However, the diversity and complexity of tertiary services has meant that to understand the role and dynamics of services and to plan and manage them effectively it has been necessary to classify services. The problem has been that most classifications have not been practical. Two examples illustrate the point. One attempt by Banton (1968) was to differentiate the range of tertiary activities between commerce and direct services. Commerce was seen by Banton to include: transport and communication; distributive trades; insurance; banking and finance; and storage, while direct services were seen to include: professional and scientific services; sport and recreation; personal services; and public administration. There is no obvious analytical base for this distinction between commerce and direct services and not much homogeneity within direct services.

Another attempt to classify services was provided by Foote and Hatt (1953) who proposed three sub-divisions of services. For them the tertiary sector included: restaurants and hotels; barber and beauty shops; laundry and dry cleaning establishments; home repair and maintenance; handcrafts once performed in the home and other domestic and quasi domestic services. The quaternary sector encompassed transportation, commerce, communication, finance and administration; and the quinary sector involved healthcare, education and recreation. According to Foote and Hatt (1953), tertiary activities are, ‘‘devoted simply to the maintenance of individuals in the style to which they have become accustomed’’. Quaternary activities ‘‘facilitate and effectuate the division of labour’’ and quinary activities are about, ‘‘the cultivation of behaviour to which they are not accustomed’’. This is a rather tortuous distinction in which the classifications are not mutually exclusive and demand for services is unconnected to spending priorities. However, at least Foote and Hatt made an attempt, which is more than can be said for many modern analyses of the growth and development of economies that do not even address the issue. For Jay (2000), Bernstein (2004), and Kay (2003) services are presented as little more than activities in addition to secondary activities.

The tertiary segment can be made more effective by its restructuring into three discrete categories that are sequential in terms of consumer spending and are internally consistent:

- Citizen services: government funded services in education, health, public administration, welfare and other services that are a right of citizenship, uncoupled from the capacity of citizens to pay at the point of consumption.
- Market service businesses: banking, communications, distribution, financial services, personal services, professional services, real estate management, retailing and wholesaling.
- Experience businesses: airports, bars, bingo clubs, casinos, cinemas, cruise ships, hairdressers, health clubs, hotels, nightclubs, passenger airlines, passenger coaches, passenger trains, private hospitals, private schools, private prisons, restaurants, sports businesses, theatres and visitor attractions. Pine and Gilmore (1998) provide some insights into the management of experience businesses.

Citizen services are discrete because they are those services that are government controlled and to which all citizens have access. Significantly, many of the experience businesses are involved in hospitality and tourism and there are four features of all experience businesses that differentiate them from market service businesses:

Table 1
Segment GDP per citizen 2006 ($)

	Agriculture	Industry	Citizen service	Market service businesses	Experience businesses	Total per capita GDP	Service business
USA	475	8,880	11,760	11,170	7,580	39,865	47%
Britain	360	9,330	13,060	7,560	5,180	35,490	36%
France	840	7,370	15,930	5,420	4,340	33,900	29%
Poland	210	2,060	3,100	510	450	6,330	15%

Sources: World Bank and Otus & Co.

- Consumption in experience businesses occurs in specific venues outside of the home.
- Each experience business is defined by the configuration of facilities, services and products it offers for on-site consumption.
- Buying from experience businesses involves renting, but not transferring ownership of the facilities and services.
- Because the buyer from experience businesses does not own the facilities or services, further gratification from consumption can only be gained by buying again.

The more that the structural balance of an economy progresses towards service businesses, the more complex and diverse the economy becomes and the more prosperous it becomes. The first empirical step in understanding structural development is to track, annually, a range of measures for every economy including:

- the contribution of each of the five segments to the GDP;
- the numbers employed in each segment;
- the segment GDP per employee;
- the segment GDP per citizen.

Table 1 below shows the pattern of segment GDP per citizen for a selection of countries – USA, Britain, France and Poland – chosen because they exhibit a range of economic structures and they are ranked in terms of the percentage contribution of service businesses to GDP.

Although measuring the quality of performance and structure of an economy is necessary, it is not enough for assessing its prospects or in assessing the future demand for and supply of hotels. To achieve this we need to track the development of the structural balance of an economy. The transition of an economy from primary to secondary is the least complex transition because economies at this stage of development have the lowest level of diversity. During the Industrial Revolution when the economies of Britain, some western continental European countries and the USA were making the transition from agriculture to industrial activities as the main source of economic growth, the role of government was laissez faire. The transition was unplanned and driven by market forces. Communism and socialism emerged as strong reactions in European countries to the maltreatment of the masses when the structural balance of the economies shifted from primary to secondary. During the first half of the 20th century when the US and western European economies made the second transition in economic structure from secondary towards citizen services, the role of governments swung from laissez faire to being actively involved in both creating and managing public services as well as other segments of the economies. The resulting big government saw citizen services emerge as the largest segment of many economies. The reluctance of the US to be involved in big government was a factor in its brief spell in citizen service, the New Deal. Its big government reluctance also accelerated earlier and faster growth in service businesses, particularly after World War II. To achieve this third transition the US government created the conditions necessary for the development of service businesses, but crucially, did not become involved in the management of service businesses. Thus, the role of the US government in the transition of the structural balance of its economy to service businesses was different from the big governments in post war Europe where it took another 40 years before the British economy was able to make the ascent towards service businesses.

The main impediment to the progress of the structural balance of the European economies towards service businesses is the role of government. Major moves have already been achieved with the collapse of communism, a non-democratic political and economic system in which the economic structure was both determined by and managed by the government. The suppression of service businesses was part of communist ideology and thus, the soviet economies were constrained within the agriculture, industry and citizen services segments. As a result, the outcome of communism was weak economic performance and long-term poverty for its citizens. Other western continental democratic economies that have operated for the past half century as social market economies are now in a citizen services cul-de-sac with insufficient conditions and an inappropriate role of government for the structural balance of the economy to progress to service businesses. Economies such as France, Spain, Italy and Germany, among others have suffered stubbornly high levels of unemployment during the past 10 years while the range and size of their service businesses are materially less than in the US, Canada and Britain, which have become service business economies. For the structure of the western continental economies to ascend to service businesses there will need to be a change in the role of their governments. Governments will need to reduce their involvement in managing economic activities, they will need to create the conditions to establish a wider range of service businesses and those businesses will need to respond to and generate new demand.

Among the host of conditions that an economy needs in order to achieve the ascent to service businesses there are four that are central. First, the extension of human and civil rights, which, in most advanced economies, are sufficient for the transition to be started. In the most advanced economies the extension was a progressive feature of the last century and continues in this. Secondly, there is the expansion and growth of tertiary education including the widespread involvement of the social sciences. In the US, the expansion of tertiary education exploded after World War II as did the expansion of pure and applied social sciences, notably in vocational degrees. These developments did not occur in Britain until the 1960s when examples included the expansion of new universities and polytechnics and the introduction and growth of vocational degrees such as hospitality management. In continental Europe these developments took longer and the provision and range of vocational degrees is still too narrow. Third, is the access to personal credit, which is predicated on the widespread ownership of appreciating assets such as homes, insurance policies, pension schemes and other savings mechanisms. All of these forms of saving expanded fast in the US in the 1950s and have maintained a momentum since. In Britain, the mass expansion of ownership of appreciating assets did not occur until the 1980s. In both countries the access to personal credit snowballed in parallel with the ownership of appreciating assets and fuelled the demand for service businesses. In continental Europe, the proportion of home ownership is lower as is the range and volume of ownership of other appreciating assets. The access to personal credit is lower and as a consequence so is the demand for service businesses. Fourth, is the widespread growth in passenger travel, which requires extensive transport infrastructure. Given that demand for experience businesses entails personal travel and that the management of service businesses requires hyper business travel so investment in travel infrastructure exploded in the US during the 1950s and 1960s and has continued since, while it took longer to manifest itself in Britain and it still lags on the continent.

To assess the current and future prospects for hotel demand and supply in the more advanced economies Otus seeks to understand and track the conditions that need to be in place to drive the structural balance of the economies towards service businesses. Central to this is an understanding of the political system, the economic policies pursued and their anticipated outcomes. In brief, the more left wing the government the more difficult for the structural balance of an economy to ascend to service businesses.

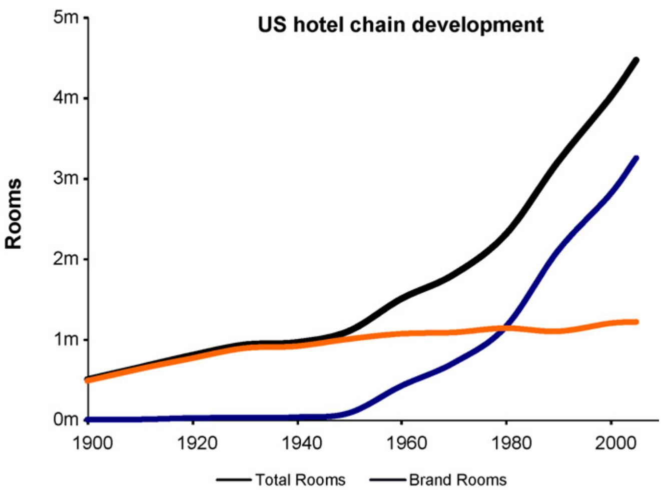

Fig. 2. US hotel chain development 1900–2000. *Source*: Otus & Co.

No communist state ever came even remotely close to making the ascent to service businesses. In parallel, more right wing governments in the US, Britain and Canada succeeded in creating the conditions for the transition to occur. France, Germany, the Nordic and Benelux economies are now at the stage of development when their structural balance is poised to ascend to service businesses and awaits change in the role of government. The election of Nicolas Sarkozy as President of France heralded changes in economic policies designed to shift the structural balance of the economy towards service businesses. Central to this programme is the report by Jacques Attali that identified more than 300 measures that need to be put in place for economic ascent to be achieved. This development can be expected to produce the most significant progress in the life styles of French citizens in the past half century.

3. Hotel supply

Tracking the economic policies of countries and their impact on the structural development of their economy is necessary to assess the prospects for ascent of the economic structure, which in turn provides indicators of the growth in hotel demand and supply. The Otus theory predicts that the ranking of the US, Britain, France and Poland in terms of the structural development of their economies will be reflected their hotel supply. In particular, it will be reflected

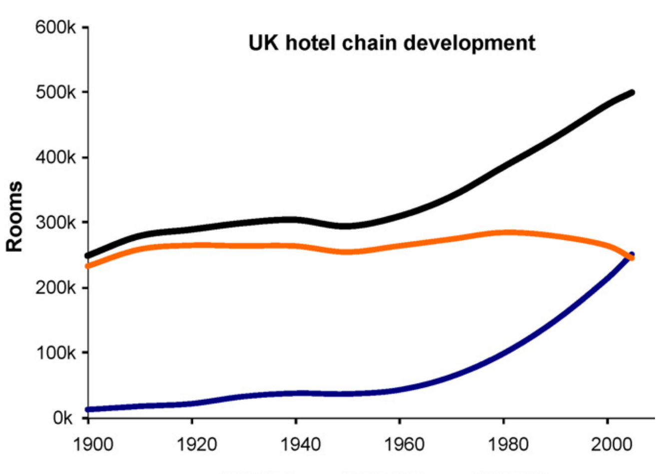

Fig. 3. UK hotel chain development 1900–2000. *Source*: Otus & Co.

Table 2
Hotel business overview in Europe 2003–2007

	2003	2007	Change	CAGR (%)
Total rooms	4,950,000	5,000,000	50,000	0.2%
Unaffiliated rooms	3,555,950	3,351,155	−204,795	−1.2%
Brand rooms	1,394,050	1,648,845	254,795	3.4%
Concentration (%)	28	33		
Brands	522	689	167	
Brand conurbations	4,055	4,426	371	
Brand countries	45	47	2	

Source: Otus & Co.

in their hotel room supply ratio, in the concentration of hotel rooms in hotel brands and the diversity of hotels operated by the brands. As a prelude the following charts illustrate the parallel between the size and structure of the hotel business in the US and Britain and the development of the structures of their economies throughout the 20th century (Fig. 2).

Hotel chains growth took off in the US after World War II as the economy moved to service businesses. For the first time in the US in 1952 a majority of employees worked in the tertiary sector. In the same year Holiday Inn was created and in 8 years the brand grew dramatically to a portfolio of 100,000 rooms. When hotel demand accelerated, hotel brands followed and the stagnation of unaffiliated hotels was inevitable.

The accelerated growth of hotel brands in Britain did not start until the 1980s as the Thatcher reforms catapulted the British economy into service businesses (Fig. 3). Between 1980 and 2000 hotel brands in Britain grew from 100,000 rooms to 214,000 rooms, an average growth of 4% per year. Over the same period hotel concentration grew from 26 to 45%, boosted by the decline in unaffiliated rooms.

The Otus Hotel Brands Database (OHBD) is the largest and by far the most sophisticated database of hotel supply in the world. It is the source of record on hotel brand supply. The database includes supply details of every hotel company with four or more hotels in 52 countries and has been developed from the UK Hotel Groups Database that I created in the early 1980s at Huddersfield Polytechnic (Slattery and Roper, 1986). At the end of 2007, the OHBD included 689 hotel brands accounting for 13,343 hotels with 1.65 million rooms in 4426 conurbations and the plan is to expand the database to include all countries in the world. Broadly, data is held and tracked about what each hotel is and where it is. Details are also held on all the brands and companies to which each hotel is affiliated and how it is affiliated. We focus on hotel brands rather than on total hotels because of the rapid growth in hotel brands and the unstoppable decline in unaffiliated hotels. Hotel brands dominate the access to development capital, they have the capacity to generate premium demand and to deliver higher operating margins, which produces superior performance. It is no accident that the economic ascent of the hotel business is tied indelibly to the growth in hotel brands as the data from Europe over the past 5 years indicates (see Table 2).

The OHBD hotel taxonomy includes five variables for each hotel: the number of rooms, the market level, the hotel configuration, the rooms configuration and the in-rooms facilities. I will deal here with market level and hotel configuration. Market level relates to the investment made in the bedrooms of a hotel. Otus estimates that in Europe the current replacement cost per room of deluxe hotels is €750,000; up-market hotels, €280,000; mid-market hotels, €175,000; economy hotels, €90,000 and budget hotels, €50,000. Market level is reflected in room size, the range and quality of furniture, fixtures and fittings as well as the range of in-room services provided. The database also uses a number of definitive brands as benchmarks for each of the five

Table 3
Benchmark brands for market level

Deluxe	Up-market	Mid-market	Economy	Budget
Conrad	Crowne Plaza	Country Inn by Carlson	Campanille	Etap
Four Seasons	Hilton	Courtyard by Marriott	Comfort	Formula 1
Kempinski	Hyatt Regency	Four Points	Days Inn	Premiere Classe
Manderin Oriental	Intercontinental	Holiday Inn	Express by Holiday Inn	Balladins
Orient Express	Le Meridien	Howard Johnson	Hampton Inn	
Park Hyatt	Marriott	Novotel	Ibis	
Raffles	Millennium	Quality	Innkeepers Lodge	
Ritz-Carlton	Radisson	Ramada	Kyriad	
Rocco Forte Hotels	Renaissance	Scandic	Premier Inn	
St. Regis	Sheraton	Sol	Sleep Inn	
	Sofitel	Suite Hotels	Travelodge	
	Swissotel			
	Westin			

Source: Otus & Co.

Table 4
Market level profile of hotel brands in Britain and France 2007

	Britain rooms	% Share	Capital value €m	France rooms	% Share	Capital value €m
Deluxe	5,070	2	3,803	2,340	1	1,755
Up-market	86,885	32	24,328	29,215	11	8,180
Mid-market	88,140	32	15,425	67,930	26	11,888
Economy	90,680	33	8,161	89,510	34	8,056
Budget	2,535	1	127	74,560	28	3,728
Total	273,310	100	51,843	263,555	100	33,607

Source: Otus & Co.

market level categories against which less familiar brands can be judged. Table 3 lists a selection of the benchmark brands at each market level.

At the end of 2007 the market level profile of chain hotels in Britain and France was as given in Table 4.

Britain and France have similar populations, but due to the more structurally developed British economy differences emerge in hotel supply. Britain has the higher hotel concentration, 55% against 48% for France. It has the larger volume of branded room stock and the capital value of branded hotels in Britain is more than half as much again as in France. There is a clear distinction in the market level profile of the two countries. Britain has 60,000 more branded deluxe and up-market rooms than France, one third of the branded rooms in Britain against only 12% in France. In contrast, Britain has 70,000 fewer branded economy and budget rooms than France, one third of the branded rooms in Britain against more than 60% in France. The hotel demand puzzle is why France, the home of haute cuisine and haute couture has a hotel business that is concentrated at the bottom of the market.

Hotel configuration is a measure of the non-room features of the hotel and their importance in demand and revenue generation. There are five hotel configurations that cover the full range of non-room facilities as given in Table 5.

At the end of 2007 the hotel configuration profile of hotel brands in Britain and France was as given in Table 6.

Whereas Britain has 71,000 more branded full feature and hotel resort rooms than France, France has 74,000 more rooms than Britain in limited feature and rooms only hotels. This difference in the hotel brand supply profile between Britain and France is indicative of a different pattern of demand. For hotel brands in Britain, two of the significant markets are packaged domestic conference and meeting demand and packaged domestic short break leisure demand for which full feature hotels and hotel resorts are needed. The growth in the packaged conference and meeting markets over the past 25 years has been driven by the emergence and growth of service businesses, which have used hotels as substitute offices in which to hold company specific meetings. Similarly, the packaged domestic short break demand grew over the past 25 years as couples and families progressed from buying consumer goods to buying services and have had the access to credit to pay for them. In France over the same period, the conditions to drive these two markets hardly existed, domestic hotel demand grew at a slow pace and this was reflected in the pattern of investment in hotel supply.

The problem with this profile is that on the basis of the development of hotel demand over the next 10 years, the current

Table 5
Hotel configuration structure

Non-room facilities	Hotel resort	Full feature hotel	Basic feature hotel	Limited feature hotel	Rooms-only hotel
Restaurants (minimum number)	1	1	1	1	0
Bars (minimum number)	1	1	1	Optional	0
Conference rooms (minimum number)	1	1	Optional	Optional	0
Indoor health and fitness (minimum number)	1	Optional	Optional	0	0
Outdoor health and fitness (minimum number)	1	Optional	Optional	0	0
Retail outlets	Optional	Optional	0	0	0
Casino and other facilities	Optional	0	0	0	0
Minimum number of non-rooms facilities	5	4	3	2	0

Source: Otus & Co.

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Table 6
Hotel configuration of hotel brands in Britain and France 2007

	Britain rooms	% Share	France rooms	% Share
Hotel resort	12,140	4	6,760	3
Full feature	108,220	40	42,620	16
Basic feature	67,220	25	54,125	21
Limited feature	41,645	15	65,040	25
Rooms only	44,085	16	95,010	36
Total	273,310	100	263,555	100

Source: Otus & Co.

Table 8
Economic structure and total hotel room supply

	Service businesses/GDP (%)	Hotel room supply ratio	Hotel concentration (%)	Branded hotel diversity (%)
USA	47	15.0	71	92
Britain	36	8.4	55	84
France	29	9.0	48	76
Poland	15	1.6	36	56

Source: Otus & Co. and World Bank.

British supply profile is best suited to France and the French profile is best suited to Britain. As service businesses in Britain grew nationally so, naturally, they created nationwide networks of offices with meeting facilities. Consequently, their demand for meetings facilities in hotels is declining and there is nothing that we can see to indicate that it will return. Service businesses continue to generate high volumes and growth in demand for hotel rooms, but not for packaged conference and meetings facilities. This is not the only traditional source of hotel demand that is under threat. Local demand into hotel restaurants and bars is in structural decline because of the expansion of high street restaurant and pub brands. Additionally, local demand into hotel health clubs is in structural decline due to the expansion of free-standing health club brands. The growth of the service business economy is not only about growing volumes of demand; there are also significant changes in the style and identity of venues in which customers want to experience hospitality. Thus, there is an over-supply of full feature hotels in which performance is falling, materially. The Otus solution is to restructure much of the non-rooms space in such hotels into bedrooms. That is, to reconfigure the hotels from full feature, in which around 50% of turnover is generated from rooms, to basic feature hotels in which rooms account for around 60% of turnover or limited feature hotels in which rooms account for at least 75% of turnover. The effect of the latter is to add around 10 percentage points to the EBITDA margin and to enhance, materially, the returns on invested capital. Otus estimates that over the next 10 years, full feature hotels, mostly in the mid-market, accounting for at least 20,000 rooms will need to be reconfigured or else they will become obsolete and unviable. In contrast, France is at the stage in the development of its economic structure that Britain was at 20 years ago. New service businesses are emerging and demanding conference and meetings facilities in hotels, but there is insufficient supply to meet the demand. We project that over the next 10 years, France will need a major building programme of full feature hotels and that hotel brands will monopolise this development.

An advantage of maintaining systematic and continuous data on hotel brand supply is that we can combine variables to produce new and more refined insights. Taken together the blend of market level and hotel configuration provides 25 possible hotel types as the analysis of Britain illustrates (see Table 7).

In Britain, the most developed hotel country in Europe, of the 25 potential combinations of market level and configuration, hotel brands are absent from four. Another six combinations, highlighted in bold, account for 87% of the room stock and the remaining 15 combinations are below par. Given the emerging pattern of hotel demand in Britain – growth in rooms demand, but structural decline in the domestic conference and meetings demand, local restaurant demand and local health club demand – we are projecting that three hotel types, shaded green in the table, are likely to achieve superior growth over the next 10 years—up-market, basic feature; up-market limited feature and mid-market limited feature. In the other sample countries, hotel brands in the US are present in all but two combinations, France is absent from five and Poland from 11. This is illustrative of the overall pattern that the greater the contribution of service businesses, the greater the diversity of branded hotels.

The Otus hotel location taxonomy includes four variables, three relating to the conurbation and the other to the country in which each hotel is located. Hotel locations, of which there are currently 4426, are classified first in terms of population: a city has a population of more than 100,000, a village less than 10,000, while a town is anything in between. Secondly, cities are classified as urban, suburban or airport, based on the post code of the hotels. Thirdly, each conurbation is classified in terms of its significance to hotels by recording the number of hotels and hotel rooms in each location. To illustrate the Otus theory there is need only to summarise hotel supply and countries as Table 8 shows.

The hotel room supply ratio is the ratio of total hotel rooms per 1000 citizens and is the basic measure of hotel supply in a country. The supply ratio ranking among the sample countries reflects broadly the structural balance of the economies and will become clearer when hotel demand is discussed, but some additional comments will clarify the position at this stage. The US ratio is high relative to its economic structure since there is a very low level of foreign travel by its citizens. In contrast, Britain has a very high level of foreign travel by its citizens and thus a supply ratio that is low relative to its economic structure. France has a high supply

Table 7
Hotel configuration and market level matrix for branded hotels: Britain 2007

	Deluxe rooms	Up-market rooms	Mid-market rooms	Economy rooms	Budget rooms	Total rooms
Hotel resort rooms	560	10,070	1,510	0	0	12,140
Full feature rooms	3,915	**59,950**	**42,115**	2,240	0	108,220
Basic feature rooms	535	**16,125**	**40,485**	10,055	20	67,220
Limited feature rooms	0	250	2,690	**38,290**	415	41,645
Rooms only rooms	60	490	1,340	**40,095**	2,100	44,085
Total rooms	5,070	86,885	88,140	90,680	2,535	273,310

Source: Otus & Co.

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Table 9
Total hotel demand overview 2007

	Total roomstock	Room occupancy (%)	Total room nights sold m	Domestic business demand	Domestic leisure demand	Foreign business demand	Foreign leisure demand
USA	4,500,000	60	980	500	400	30	50
Britain	500,000	55	100	46	34	9	11
France	545,000	50	100	28	22	8	42
Poland	62,600	48	10.2	3.7	2.9	2.7	0.9

Source: Otus & Co.

Table 10
Economic structure hotel room supply and hotel room demand

	Service businesses/GDP (%)	Hotel room supply ratio	Hotel concentration (%)	Branded hotel diversity (%)	Domestic hotel room demand ratio
USA	47	15.0	71	92	12.2
Britain	36	8.4	55	84	5.3
France	29	9.0	48	76	3.2
Poland	15	1.6	36	56	0.7

Source: Otus & Co. and World Bank.

ratio due more to the very high level of foreign visitors using its hotels than to domestic demand. The other two measures: hotel concentration and hotel diversity conform to the Otus theory.

4. Hotel demand

Starting from economic structure and hotel supply, the focus is on four sources of demand: domestic business, domestic leisure, foreign business and foreign leisure. Their hotel room nights sold volumes are tracked from available hotel demand data, from tourism satellite accounts and from the analysis of economic structures. The pattern in the sample set of countries is as given in Table 9.

France sticks out for two reasons. First, half of all hotel room nights sold in France are generated by foreign visitors. The greater the proportion of hotel demand from foreign visitors, the more that the pattern of hotel supply in a country is determined by and designed to meet foreign demand rather than demand from its own citizens. Even so, given that France receives 76 million overnight foreign visitors per year, the hotel demand is low reflecting a high proportion of stays in non-hotel facilities and the short average length of hotel stay (World Tourism Organization, 2007). The high proportion of foreign demand in France is also a key factor in the low room occupancy since a greater proportion of hotels than in the US or Britain suffers from high seasonality. In contrast, half of rooms demand in the US comes from domestic business travellers. This pattern of demand and its congruent hotel facilities, services and products are radically different from the foreign leisure demand in France and the hotel provision that it requires. Second, the low volume of domestic business demand in France relative to Britain is a function of the less structurally developed economy and is impacted further by the Dirigiste system of government, which limits the hotel demand from citizen services compared with Britain and the US. The low level of domestic leisure demand relative to the US and Britain is also a function of the less developed French economic structure.

Adding the domestic demand ratio to the table of economic structure and hotel room supply we get the profile as given in Table 10.

The domestic demand ratio is the measure of the number of room nights spent in hotels by domestic customers per 1000 citizen nights and is the basic measure of hotel demand. The demand ratio for France is in line with its economic structure and confirms that the higher than predicted hotel room supply ratio in France is due to the high volume of foreign demand in its hotels, which more than offsets the low volumes of domestic demand. Thus, the pattern in the table conforms to the Otus theory.

As more European economies seek to make the transition to service businesses so the rate of growth in hotel demand, hotel supply, hotel concentration and hotel diversity will increase. Otus projects that merely to keep pace with the resulting demand growth, hotel chains in Europe will need to add 1 million hotel rooms over the next 10 years. The new room stock required entails a capital investment in the region of €250 billion at current prices and this is before the on-going and increasing capital requirements for consolidation among hotel chains. The capital markets have yet to factor this volume into their plans and they are in no rush because, historically, too many hotels have disappointed in terms of return on investment due to poor development decisions about which country, which cities, what market level, what configuration, how many hotels to develop, what demand sources are growing and what demand sources are declining. France, Germany, the Nordic economies and the Benelux economies are moving towards the stage in their structural development when ascent to service businesses is becoming a priority and will act as a trigger for accelerated growth in hotel demand, hotel supply, hotel concentration and hotel diversity. These economies alone account for a population of 194 million and a total hotel room stock of 1.4 million. At the end of 2007 these economies accounted for 628,100 branded hotel rooms and we expect that, over the next 10 years in these countries alone, hotel brands could add between 380,000 and 4200,000 hotel rooms.

5. Conclusions

I have sought to provide a glimpse the Otus theory of hotel demand and supply and how it can make sense of the structure and future development of the hotel business. It is an approach that tackles the large-scale issues that are fundamental to the strategic direction of hotel companies and online travel agencies as well as the hotel investment decisions of real estate companies and institutional capital providers. As the size and complexity of the hotel business grows and the level of investment escalates such strategic decisions carry increasing risk, which the Otus theory is designed to reduce.

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