

INTERNATIONAL INDUSTRIAL PARKS AND SUPPLY CHAIN MANAGEMENT

with Asia-Pacific Region Taking Center Stage

*“ . . . trend toward fewer but
extremely efficient retailers . . . ”*

by

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The forward march of globalization will not be reversed, despite a number of tragic events (including the attacks of September 11, 2001, and the more recent bombings in Indonesia). Although these events have increased the cost, time, and risk associated with cross-border trade, the particular impact of the Asia-Pacific region on global economies is immense. Its influence is increasing with every passing year.

That impact is changing the way we use real estate in North America and Europe, especially in the areas of manufacturing and distribution facilities.

World Trade's Fastest Growing Region: Asia-Pacific

Over the last decade, world trade increased by seven percent per annum, compared with average world growth of only two percent growth. As the following table shows, a much higher percentage of world trade exports by region comes from Asia-Pacific; this is the fastest growing trade region in the world.

World Exports: % by region

	1990	1999
Europe	52%	47%
North America	15%	17%
Asia-Pacific	22%	26%
Rest of World	11%	10%

This growth in world trade is reinforced by the fact that, between 1993 and 1999, world foreign direct investment quadrupled to reach US\$800 billion. Although the world economy over the last year has slowed down, foreign direct investment it is still considerably higher than it was a decade ago.

Patterns of economic growth, by country, also demonstrate this extraordinary trend. As the following table shows, economic growth in China and India has continued at an amazing pace. By contrast, economic growth in Japan has been negative, and in places such as Singapore, Hong Kong, and Taiwan there has been volatile or lower economic growth.

Asia-Pacific: Economic Growth

	2001	2002
Australia	2.7	3.9
China	7.3	7.8
Hong Kong	0.2	1.3
India	5.0	5.4
Indonesia	3.4	3.9
Japan	-0.3	-0.9
Malaysia	0.4	4.4
Singapore	-1.9	2.2
South Korea	1.8	4.6
Taiwan	-2.2	3.3
Thailand	1.5	2.6

Source: OEF, Spring and Sept 2002

Service Sector Growth

Not only do we have extraordinary growth in Asia-Pacific, especially China and India, there is also an ongoing shift toward service sector employment. As the following table demonstrates, the service sectors of the economies of the U.K. and the U.S. is more than 70 percent of total employment. However, even in China the service sector has grown enormously, from 12 percent to 17 percent. This service sector growth is resulting in an enormous demand, for urban property, including new office developments and residential buildings. These, in turn, create a need for retail, leisure, and industrial/distribution facilities.

Global Employment Trends 1998 (1980)

	Agriculture %	Industry %	Services %
Australia	5 (6)	22 (31)	73 (63)
China	60 (65)	23 (23)	17 (12)
France	5 (8)	30 (35)	65 (57)
Japan	5 (11)	32 (35)	63 (54)
Malaysia	19 (37)	32 (24)	49 (39)
UK	1 (3)	27 (37)	72 (60)
USA	3 (4)	24 (31)	73 (66)
Spain	8 (19)	30 (36)	62 (55)

Supply Chain Management

These issues, and others, are discussed in the King Sturge CORFAC report entitled "Global Trends in Industrial Parks" (available on www.kingsturge.com). One of the themes of this research was to understand the issue of supply chain management. Increasingly, Asia-Pacific is the region of the world involved with the mass production of tangible goods, at very favorable prices. These products are then exported to other regions of the globe, where they may be "customized." For instance, a computer may have a "customized" keyboard, targeted to a particular country and language market.

This leads to the concept of "just in time" logistics, whereby major manufacturers, exporters and retailers are involved with the greater use of computer technology to minimize the cost of global distribution. As a result of this trend, there has been a wave of outsourcing, with third party logistics companies taking over the distribution element of many manufacturing companies.

The conventional route, from producer to market, was that the raw materials might be stored, and then they might be manufactured before being distributed nation-ally. This might lead to regional distribution and even perhaps local distribution before eventually reaching the multiple retailers who sell to the end customer.

In the age we now live, of Internet computer technology, business-to-business Internet usage has grown at an enormous speed.

The Internet supply chain management system knows where the raw materials originate. They are then delivered direct to the manufacturer. From the manufacturer they are distributed to a major distribution facility, in the global region to which they will eventually be sold, where there may be a "cross-docking" facility whereby the goods move from one side of a distribution facility and out the other side within hours of being received. Also, in such a facility, there may be an element of customizing or final assembly before distribution to the retailer.

The retailers are becoming fewer, and they are more time- and cost-efficient. Wal-Mart epitomizes the trend toward fewer but extremely efficient retailers who have led the way in terms of supply chain management efficiency.

Global Transport Facilities

Understanding the concept of supply chain management also requires an understanding of key distribution points in the global economy. Seaports are extremely important in terms of supply chain management. As the following table demonstrates, the top four seaports in the world are in the Asia-Pacific region.

Transport: Global Sea Ports

	Containers 1999
Hong Kong, China	16.1m
Singapore	15.9m
Kaohsiung, Taiwan	6.9m
Pusan, South Korea	6.4m
Rotterdam, Netherlands	6.4m
Long Beach, California USA	4.4m
Shanghai, China	4.2m
Los Angeles, California USA	3.8m
Hamburg, Germany	3.7m
Antwerp, Belgium	3.6m

Source: *Containerisation Int. 1999*

In Europe, Rotterdam (at the mouth of the River Rhine) dominates seaport activity, while Long Beach, California, is the largest seaport in North America.

Airports are equally important. More than 60 percent of all airfreight is carried in the bellies of passenger airlines. However, certain airports dominate the world of air cargo. The table of cargo airports below shows that three of the top five are in North America.

Containers 1999

Memphis, Tennessee USA	2.5m
Hong Kong, China	2.3m
Los Angeles, California USA	2.0m
Tokyo, Japan	1.9m
Anchorage, Alaska USA	1.8m
New York, New York USA	1.8m
Seoul, South Korea	1.8m
Frankfurt, Germany	1.7m
Singapore	1.7m
Miami, Florida USA	1.6m

Source: Airport Council Int

These airports are known as “gateway” or “hub” cities with distribution to “spoke” airports by air, or over land using road (and sometimes rail) transport links.

There is clearly a difference between small packages, which tend to go into aircraft, as the following table demonstrates.

Transport: Cargo Airports (Gateway Cities)

World Freight Transportation 1999/2000 %

	Number	Tons	Revenue
Small Packages	98	5	22
Hard Freight	2	95	78

Source: ULL/Merge Global 2001

Not surprisingly, airfreight tends to have a number of small packages with a higher revenue value than high bulk low revenue value sea freight products.

Warehouse Distribution Facilities

It is not surprising that transport has a major impact on warehouse locations across the world. As the following table demonstrates, cities such as Los Angeles and Hong Kong not only entertain the largest seaports and cargo airports in the world, they are also the locations of the largest stock of warehouse facilities.

The King Sturge CORFAC report, “Global Trends in Industrial Parks,” reported on warehouse facilities across the globe, looking at case-by-case examples. While the manufacturing facilities tend to be in the Asia-Pacific Region such as Shanghai, many of the other facilities are in extremely efficient logistical locations. For instance, the D1 logistics park south of Prague is slowly becoming the major distribution point for Central Europe. Within Spain, the Cosalda Logistic Park on the east side of Madrid is on the corridor which leads from the fast-growing city of Madrid toward Barcelona.

In North America, Center Point at 8A, South Brunswick, New Jersey, is a major distribution facility south of New York, with access to the northeastern United States.

Occupation Costs

An examination of occupancy costs around the globe demonstrates wide variations.

As the above table demonstrates, occupying an industrial facility near London’s Heathrow Airport is seven times more expensive than a similar facility in Shanghai or perhaps Kuala Lumpur. These wide variations are a reflection of affluence of certain parts of the global economy demanding warehouse facilities, at a point in the map where there is an extreme shortage of suitable land. The shortage of suitable land in Dublin and Hong Kong clearly demonstrates this dynamic.

By contrast, Northern France demonstrates relatively modest warehouse occupation costs, especially in northeastern France at Lille.

Within the United Kingdom, the pattern of occupation has demonstrated a need for fewer but larger distribution facilities. Looking at the growth of units larger than 100,000 sq. ft. (9,290 square metres) there has been a steady increase in both the number and take-up in square meters (and square feet) over the last seven years. This reached a peak in 2001 with more than 20 million sq. ft. of take-up. Although these are figures from Great Britain, they demonstrate a global trend.

The Power of the Internet and Global Costs

In the mid-1990s, there was a major trauma in the Asia-Pacific Region; many economies collapsed and there was widespread devaluation. This followed a period when there had been excessive urban development, including an excessive capacity of industrial and office facilities.

As the following chart shows, industrial rents fell dramatically between 1996 and 1999 in four major cities of the region. Since then, they have not changed significantly.

If the impact of inflation is also taken into account, the change in cost of occupation today is more than 40 percent below the cost in 1995.

Industrial Rents Percentage change between 1995 and 2001 (in US\$ adjusted for inflation)

Hong Kong	-40.42
Jakarta	-94.22
Kuala Lumpur	-53.56
Shanghai	-83.69
Singapore	-55.77

Source: King Sturge, *Global Trends in Industrial Parks, 2002*

Greatest Impact of the Internet – Supply Chain Management

In the mid-1990s, it was felt that the Internet would dramatically change retailing; shopping malls would become vacant and there would be an enormous growth in the demand for warehouse facilities meeting the needs of Internet shopping.

To some extent this has happened with such famous names as Amazon.com becoming increasingly successful. However, growth in sales across the world has not been as dramatic as anticipated.

In the U.K. market there has been, and will continue to be, a growth in sales of computer software, books, music, and video products. However, the growth in sales of groceries as well as clothing and footwear is and will remain modest; consumers still like visiting their shopping location; big stores and shopping malls are locations for people to socialize.

The major impact of the Internet has been in making the whole process of supply chain management even more efficient. Coupled with the collapse in the economies of Asia-Pacific reducing production costs, the result is that in many parts of North America and Europe the cost of tangible products such as clothing and footwear is falling. In recent years, it has been estimated that clothing costs have fallen between three and six percent per year meanwhile, the growth of leisure economy has resulted in service costs going up. This means that the cost of the coffee at Starbucks has decreased but the cost of the service that delivers a Starbucks coffee has increased.

Investing in Industrial Distribution Facilities

Increasingly, the investment market realizes that there are significant opportunities for investing in the industrial distribution property market. However, to understand the opportunity, we must also understand the importance and relevance of supply chain management issues.

This shift of industrial production to Asia-Pacific creates opportunities for older industrial locations. In locations as diverse as Singapore and Hong Kong, as well as major European cities, previously occupied industrial buildings are being demolished and/or converted to make way for higher value urban development, including retail and residential projects.

Two elements characterize the industrial investment market: 1) opportunities exist to buy industrial sites and benefit from the upside potential of moving to a higher value land use and alternatively, 2) major new distribution facilities offer investors a level of income, which can be difficult to establish in other forms of investment.

Industrial Investment Yields and Government Bonds

	Property%	Bonds%
Madrid, Spain	8.0	4.8
London, U. K.	6.6	4.7
Milan, Italy	9.5	4.8
Barcelona, Spain	8.0	4.8
Paris, France	9.1	4.8

Rotterdam, Netherlands	8.75	4.8
Brussels, Belgium	8.75	4.8
Frankfurt, Germany	7.5	4.8
Amsterdam, Netherlands	8.5	4.8
Prague, Czech Republic	10.75	5.2
Warsaw, Poland	11.0	5.2
Copenhagen, Denmark	8.25	4.7

As the above table demonstrates, across Europe there is a wide range of property investment yields (capitalization rates). King Sturge has compared these yields with long-dated government bonds. Within the European Union there is a common benchmark bond yield, while in Central Europe, in places like Prague and Warsaw, the bond yield is still 40-50 basis points higher, reflecting the uncertainty of these markets.

The yields used in different property markets reflect a number of characteristics, including the ability to obtain planning permission for industrial facilities as well as the lease structures and legal requirements apparent in different markets. For instance, the structure of leases in Paris is very different to that of London, despite the fact that the two cities are both within

the European Union and only a few hundred miles apart. ❖