

Competitive Alternatives

KPMG's Guide to International Business Location 2008 Edition 0

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A Guide to Business Location

Competitive Alternatives is KPMG's guide to comparing business locations in North America, Europe, and Asia Pacific

The Competitive Alternatives study is the most thorough comparison of international business locations ever undertaken by KPMG. This study contains valuable information for any company considering their international business location options.

Competitive Alternatives 2008 compares business competitiveness for more than 100 cities in ten countries: Australia, Canada, France, Italy, Japan, Germany, Mexico, the Netherlands, the United Kingdom, and the United States. For the first time, the 2008 study includes all three NAFTA countries and all 50 US states, in addition to its traditional G7 coverage.

The primary focus of *Competitive Alternatives* 2008 is international business costs. The study measures the combined impact of 27 significant cost components that are most likely to vary by location, as applied to 17 different business operations. The basis for the cost comparison is the after-tax cost of startup and operation, over a 10-year planning horizon. This brochure summarizes the results of the international cost comparisons.

The *Competitive Alternatives* report also presents a comparison of a variety of non-cost factors that can also influence the attractiveness of locations to business. Aspects of the business environment, such as labor availability and skills, economic conditions and markets, innovation, infrastructure, and the regulatory environment, as well as personal factors, such as cost of living and quality of life, are all discussed and compared in the main study report.

Full study results, for both cost and non-cost factors, are available online at: www.CompetitiveAlternatives.com.

The Bottom Line



% cost advantage/(disadvantage) relative to the US Among the countries studied, **Mexico** represents the lowest-cost country, with a business cost advantage of 20.5 percent, on average, relative to the US baseline. This rating reflects Mexico's status as the first emerging industrialized country to be included in *Competitive Alternatives*.

Canada, the **United States**, and **Australia** are the cost leaders among the nine established industrialized countries examined. Business costs in these three countries are virtually equivalent, with less than one percent separating them.

France ranks fifth among the ten countries examined, and has the lowest cost structure among the European countries studied. Overall business costs in France are 3.6 percent higher than the US benchmark.

The **United Kingdom**, the **Netherlands**, and **Italy** are also very closely grouped, with business costs between 7.1 and 7.9 percent above the US benchmark.

Japan and Germany have the highest cost structures among the ten countries examined, with costs 14.3 and 16.8 percent (respectively) higher than the United States.

Cost Trends—Big Gains for US on Back of Weak Currency

Since the previous (2006) edition of *Competitive Alternatives*, the most notable cost trends have been caused by the weakening of the US dollar against all other major currencies. However, changes in the local cost fundamentals in each country have also impacted results:

- The United States has experienced the greatest gain in cost competitiveness since 2006, improving its position significantly against all other countries as the value of the US dollar has declined
- Canada and Australia have both lost their previous cost advantages relative to the US, but have both gained ground relative to the European countries
- France, Germany, Italy, and the Netherlands have all lost ground, not only relative to the US, but also to the United Kingdom, which has benefited from the stronger appreciation seen by the euro than the pound
- While Japan remains a relatively high-cost country, over the longer term its has gained some ground against most countries, due to its low inflation rates and the lower volatility of the yen vis-a-vis the US dollar.

The results of this study are sensitive to exchange rates.

	Exchang		
Currency	2006 Edition	2008 Edition	% Change ²
Euro	0.84	0.68	23.7%
UK£	0.57	0.50	14.4%
Canadian \$	1.17	1.00	17.4%
Mexican peso	10.71	10.87	-1.5%
Australian \$	1.34	1.14	17.9%
Japanese ¥	117.26	111.27	5.4%

1: Per US\$. 2: Two-year appreciation relative to US\$



Labor Costs Are Key

Labor cost comparisons are based on 42 job positions.

Labor costs include wages and salaries, statutory benefits (including government pension plans, medical plans, etc.), and all other benefits typically provided by employers.

For manufacturing operations, labor costs typically represent 58 to 74 percent of total location-sensitive costs. For non-manufacturing operations, this range is typically 79 to 88 percent.

Labor-related costs vary significantly among countries:

- Mexico has the lowest salary and wage costs among the ten countries examined, followed by France, Italy, and the United States
- Costs for statutory plans, as a percentage of payroll, are lowest in Canada, followed by Japan, the United States, and the Netherlands
- Costs for other employer-sponsored benefits, as a percentage of payroll, are lowest in France, followed by Canada, Germany and Mexico
- Combining these three elements, total labor costs are lowest in Mexico, followed by the United States, Canada, and Australia; an order that is generally consistent with the overall cost rankings

Other Major Costs

Facility costs generally represent the secondlargest group of location-sensitive business costs:

 For manufacturing operations, facility ownership costs (including financing) range from 8 to 19 percent of location-sensitive costs

Land purchase and building construction costs for a new industrial facility are lowest in Mexico, followed by the United States, Italy, and France

 For non-manufacturing operations, office leasing costs range from 4 to 14 percent of location-sensitive costs. Lease costs include rent, plus all costs and taxes typically passed on by the landlord to the tenant

Office lease costs are lowest in Italy, followed by Mexico, the Netherlands, and Germany

Transportation costs vary widely by industry, and represent between 1 and 15 percent of location-sensitive costs for the manufacturing operations examined. Transportation costs vary by product and markets served, but tend to be lowest in the more compact European market, with leading cost countries including the Netherlands, the United Kingdom, and France. Despite its broad expanse and more distant global location, Australia also offers relatively low transportation costs.

Utility costs represent between two and ten percent of location-sensitive costs:

 The lowest electricity costs are found in the United States, Canada and France, but may vary significantly by region

- Mexico, the United States, and Canada offer the lowest natural gas costs
- Telecommunication costs are lowest in the United States, Canada, and the United Kingdom

Income taxes typically represent two to eight percent of location-sensitive costs. Effective income tax rates are calculated net of generallyapplicable tax credits, grants and incentives:

- For manufacturing operations, the Netherlands offers the lowest effective corporate income tax rate, followed by Canada, Mexico and France
- For R&D operations, the Netherlands, France, the United Kingdom, Canada, Australia, and many US states all offer significant R&D tax incentives, which may be fully or partially refundable in certain cases or locations
- For other non-manufacturing operations, the United Kingdom, the Netherlands, Canada, and Australia offer the lowest effective corporate income tax rates

Detailed Results

Full results of this study, including all industries and cities for both cost and noncost factors, can be found online at: www.CompetitiveAlternatives.com.

National & Overall Cost Results

National cost results by industry and operation Overall cost results by region and city

		Cost Index' (Rank)									
INDUSTRY	OPERATION	Europe			North America			Asia Pacific			
		France	Germany	Italy	Netherlands	UK	Canada	Mexico	US	Australia	Japan
Manufacturing											
Aerospace	Aircraft Parts	101.8 (5)	113.2 (9)	104.4 (6)	106.9 (8)	106.0 (7)	99.1 (3)	77.8 (1)	100.0 (4)	98.3 (2)	113.4 (10)
Agri-Food	Food Processing ²	100.0 (4)	106.0 (9)	101.8 (8)	100.9 (7)	100.9 (6)	99.2 (3)	89.2 (1)	100.0 (5)	97.6 (2)	106.8 (10)
Automotive	Auto Parts	100.8 (5)	111.8 (9)	104.8 (8)	104.1 (7)	104.0 (6)	100.2 (4)	81.0 (1)	100.0 (3)	98.2 (2)	115.2 (10)
Chemicals	Specialty Chemicals ²	105.4 (5)	116.6 (10)	108.4 (6)	109.0 (8)	108.6 (7)	99.1 (2)	88.1 (1)	100.0 (3)	103.2 (4)	109.5 (9)
Electronics	Electronics Assembly ²	106.4 (5)	117.6 (9)	107.6 (6)	110.7 (7)	111.2 (8)	100.4 (3)	78.0 (1)	100.0 (2)	102.3 (4)	117.9 (10)
Medical Devices	Medical Device Mfg.	102.9 (5)	113.8 (10)	105.2 (6)	107.4 (8)	105.5 (7)	99.7 (2)	79.2 (1)	100.0 (4)	99.9 (3)	112.7 (9)
Metal Components	Metal Machining ²	101.2 (5)	111.2 (9)	104.6 (8)	104.5 (7)	104.0 (6)	101.0 (4)	81.2 (1)	100.0 (3)	98.2 (2)	114.9 (10)
Pharmaceuticals	Pharmaceutical Products ²	102.8 (5)	112.5 (10)	104.5 (6)	106.7 (8)	104.9 (7)	99.6 (2)	82.0 (1)	100.0 (3)	100.6 (4)	111.7 (9)
Plastics	Plastic Products ²	100.0 (4)	109.1 (9)	103.8 (8)	102.5 (7)	102.5 (6)	101.7 (5)	84.2 (1)	100.0 (3)	96.7 (2)	111.3 (10)
Precision Mfg.	Precision Components ²	99.5 (4)	112.8 (10)	101.9 (6)	105.8 (8)	103.2 (7)	98.6 (3)	73.4 (1)	100.0 (5)	95.8 (2)	110.0 (9)
Telecommunications	Telecom Equipment	101.2 (5)	108.3 (10)	102.7 (6)	104.1 (8)	103.8 (7)	98.6 (2)	85.7 (1)	100.0 (4)	99.7 (3)	107.6 (9)
R&D											
Biotechnology	Biomedical R&D ²	105.7 (5)	127.0 (9)	112.2 (8)	107.9 (6)	110.7 (7)	98.6 (2)	73.6 (1)	100.0 (3)	105.6 (4)	127.2 (10)
Clinical Trials	Clinical Trials Management	87.2 (3)	135.5 (10)	102.7 (7)	86.2 (2)	104.5 (8)	92.6 (4)	63.9 (1)	100.0 (5)	100.2 (6)	117.7 (9)
Product Testing	Electronic Syst. Dvlt/Testing ²	95.7 (3)	117.0 (10)	106.3 (8)	97.0 (5)	104.7 (7)	94.4 (2)	64.8 (1)	100.0 (6)	96.0 (4)	109.2 (9)
Software		105.0 (5)	407 4 (40)	445 0 (0)	110.0 (7)	449.9 (9)	05.4 (0)	70.0 (4)	100.0 (0)	101 5 (1)	100.1 (0)
Software Design	Advanced Software ²	105.2 (5)	127.1 (10)	115.6 (9)	110.0 (7)	112.9 (8)	95.1 (2)	/2.0 (1)	100.0 (3)	101.5 (4)	109.1 (6)
Web and Multimedia Corporate Services	Content Development ²	104.7 (5)	127.2 (10)	112.0 (9)	109.2 (6)	109.6 (8)	98.0 (3)	66.7 (1)	100.0 (4)	97.6 (2)	109.4 (7)
Back Office/Call Center	rs Shared Services Center ²	121.2 (5)	141.9 (9)	129.8 (7)	132.2 (8)	123.2 (6)	105.8 (3)	69.3 (1)	100.0 (2)	109.6 (4)	159.9 (10)
Overall Results ²		103.6 (5)	116.8 (10)	107.9 (8)	107.3 (7)	107.1 (6)	99.4 (2)	79.5 (1)	100.0 (3)	100.2 (4)	114.3 (9)

LOCATION	COUNTRY	INDEX ¹	RANK	LOCATION	COUNTRY	INDEX ¹	RANK	LOCATION	COUNTRY	INDEX ¹	RANK
EUROPE				Northeast US/Canada				Midwest US/Western Ca	nada		
Mulhouse	France	101.9	2	Baltimore, MD	United States	98.9	7	Albuquerque, NM	United States	101.2	17
Paris	France	107.1	5	Buffalo, NY	United States	100.6	11	Billings, MT	United States	99.4	12
Toulouse	France	101.8	1	Charleston, WV	United States	95.3	3	Calgary, AB	Canada	102.0	18
Erlangen	Germany	116.7	12	Detroit, MI	United States	106.8	18	Cedar Rapids, IA	United States	97.6	7
Frankfurt	Germany	121.1	13	Harrisburg, PA	United States	100.5	10	Cheyenne, WY	United States	96.9	4
Halle	Germany	112.5	10	Indianapolis, IN	United States	101.3	14	Chicago, IL	United States	106.5	23
Livorno	Italy	108.0	8	Lexington, KY	United States	95.0	2	Dallas-Fort Worth, TX	United States	97.3	5
Naples	Italy	108.5	9	Montreal, QC	Canada	98.5	6	Denver, CO	United States	104.9	22
Vicenza	Italy	107.2	6	New York City, NY	United States	109.2	20	Edmonton, AB	Canada	99.9	14
Utrecht	Netherlands	107.3	7	North Virginia (Metro DC), V	A United States	101.0	13	Fargo, ND	United States	98.1	9
Barnsley	United Kingdom	103.2	3	Ottawa, ON	Canada	99.9	8	Houston, TX	United States	99.4	11
London	United Kingdom	129.3	14	Philadelphia, PA	United States	103.2	17	McAllen, TX	United States	93.7	1
Manchester	United Kingdom	113.3	11	Quebec City, QC	Canada	96.3	4	Milwaukee, WI	United States	103.7	20
Plymouth	United Kingdom	104.9	4	Saginaw, MI	United States	102.2	16	Minneapolis, MN	United States	103.9	21
				Sherbrooke, QC	Canada	92.8	1	Oklahoma City, OK	United States	94.3	2
ASIA PACIFIC				Toronto, ON	Canada	101.5	15	Omaha, NE	United States	99.0	10
Adelaide	Australia	97.9	1	Trenton, NJ	United States	106.8	19	Phoenix, AZ	United States	102.1	19
Brisbane	Australia	100.1	3	Waterloo Region, ON	Canada	98.2	5	Salt Lake City, UT	United States	101.0	15
Melbourne	Australia	99.4	2	Wilmington, DE	United States	100.6	12	Saskatoon, SK	Canada	96.7	3
Sydney	Australia	102.7	4	Youngstown, OH	United States	100.2	9	Sioux Falls, SD	United States	97.4	6
Fukuoka	Japan	113.6	5	-				St. Louis, MO	United States	101.1	16
Hamamatsu	Japan	114.6	6	Southeast US & Pu erto I	Rico			Wichita, KS	United States	99.6	13
Yokohama	Japan	114.8	7	Atlanta, GA	United States	96.9	8	Winnipeg, MB	Canada	97.7	8
				Greenville-Spartanburg, SC	United States	94.4	4				
NORTH AMERICA				Jackson, MS	United States	95.4	6	Pacific US/Canada			
New England/Atlantic	Canada			Little Rock, AR	United States	93.4	3	Anchorage, AK	United States	112.6	11
Bangor, ME	United States	97.5	5	Montgomery, AL	United States	94.7	5	Boise, ID	United States	100.5	2
Boston, MA	United States	106.7	11	Nashville, TN	United States	96.8	7	Chilliwack, BC	Canada	101.6	3
Burlington, VT	United States	99.4	6	Raleigh, NC	United States	97.6	10	Honolulu, HI	United States	115.0	12
Charlottetown, PE	Canada	95.8	3	San Juan, PR	Puerto Rico (US)	89.1	1	Las Vegas, NV	United States	105.5	8
Fredericton, NB	Canada	95.3	2	Shreveport, LA	United States	92.7	2	Portland, OR	United States	102.2	4
Halifax, NS	Canada	96.6	4	Tampa, FL	United States	97.3	9	Riverside-San Bernardino, CA	United States	102.8	5
Hartford, CT	United States	104.1	10					San Diego, CA	United States	104.6	7
Manchester, NH	United States	101.0	8	Mexico				San Jose, CA	United States	110.0	10
Moncton, NB	Canada	94.9	1	Aguascalientes	Mexico	79.4	2	Seattle, WA	United States	105.5	9
Providence, RI	United States	101.9	9	Guadalajara	Mexico	82.6	4	Spokane, WA	United States	99.8	1
St. John's, NF	Canada	99.5	7	Monterrey	Mexico	83.6	5	Vancouver, BC	Canada	104.2	6
				Puebla	Mexico	80.0	3				
				Reynosa	Mexico	76.6	1				

1: Business costs are expressed as an index, with the United States being assigned the baseline index of 100.0. A cost index less than 100 indicates lower costs than the US. A cost index greater than 100 indicates higher costs than the US. For example, an index number of 95.0 represents a 5.0% cost advantage relative to the United States. 2: Overall 2008 results are based on the same 12 operations analyzed in 2002-2006, as indicated.

Results by Industry Sector

Results for specific business operations form the basis for comparing industry sectors

NL UK IT DE



MANUFACTURING

For manufacturers, significant costs for globally sourced materials and equipment do not vary by location, resulting in lower cost differentials for most countries. In this sector, Australia and Italy achieve their best rankings, while the United Kingdom and Germany also achieve their strongest results.

SOFTWARE

Labor costs are more significant in the software sector, and vary considerably by country and by region. This results in generally higher cost differentials in this sector, as seen most prominently in the cost advantage that **Mexico** holds over all other countries. Among other countries studied, Japan achieves its best ranking in this sector.

RESEARCH & DEVELOPMENT

Cost differentials are generally higher for R&D, due to differences in labor costs for scientific and technical employees, as well as differences in tax treatment of R&D costs. Canada, France, and the Netherlands all have their strongest results in this sector.

Seven manufacturing operations

- Electronics assembly
- Food processing
- Metal machining
- Pharmaceutical products
- Plastic products
- Precision components
- Specialty chemicals

Two software operations

- Advanced software
- Content development



CA AU US

Two R&D operations

- Biomedical R&D
- Electronics systems development/testing



CORPORATE SERVICES

Results for the corporate services sector are driven primarily by labor costs for entry-level workers, which vary most significantly by country. The United States achieves its best ranking in this sector.

One corporate services operation

Shared services center

www.CompetitiveAlternatives.com

About KPMG's Global Location and Expansion Services

In most industries today, companies have to operate internationally to stay successful and grow. The need to enter new markets, serve major customers, or reduce costs and risks are just some of the reasons why businesses decide to establish a presence overseas. KPMG's Global Location and Expansion Services (GLES) group was formed to assist clients in the location and establishment of operations around the world. GLES professionals can provide objective advice that can help companies:

- KPMG Member Firm Contacts
- Australia: Peter G Ball +61 7 3233 9449 pball@kpmg.com.au
- Canada: Mark MacDonald +1 416 777 8500 markmacdonald@kpmg.ca
- Canada: Patrick Hagarty +1 514 840 2272 phagarty@kpmg.ca
- France: Gilles Galinier-Warrain +33 1 5568 1654 ggalinier warrain@kpmg.fr

MMK Consulting Inc., Study Leaders

 Glenn Mair +1 604 484 4622 gmair@mmkconsulting.com

Sponsors

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Major study contribute

- Develop an approach for international expansion that can support overall business objectives
- Determine the requirements of a new operation and translate these into criteria for evaluating locations
- Identify and compare countries, regions, and cities as potential locations for relocating or establishing new operations

• Germany: Andreas Dressler

+49 30 2068 4398

+ 39 045 8115111

dbusetto@kpmg.it

• Japan: Yasuhiko Ito

+81 3 6229 8340

yito1@jp.kpmg.com

+52 81 8122 1818

Stuart MacKay

+1 604 484 4621

Destination Winnipeg Inc.

www.edmonton.com

Enterprise Greater Moncton

Greater Halifax Partnership

www.greaterhalifax.com

www.greatertoronto.org

www.gov.mb.ca/ctt/

Newfoundland and Labrador

Department of Business www.nlbusiness.ca

Montréal International

Greater Toronto Marketing Alliance

Manitoba Competitiveness, Training & Trade

www.montrealinternational.com

www.greatermoncton.org

Enterprise Fredericton

Mexico: Luis Ricardo Rodriguez

smackay@mmkconsulting.com

www.destinationwinnipeg.ca

www.enterprisefredericton.ca

Edmonton Economic Development Corporation

luisricardorodriguez@kpmg.com.mx

adressler@kpmg.com

Italy: Domenico Busetto

- Select and evaluate potential properties, buildings, or sites for a new facility
- Negotiate and secure grants, tax breaks and other types of government incentives and support
- Set up new operations in a tax-efficient manner

Based in all regions of the globe, KPMG's GLES professionals offer locally relevant, industryspecific knowledge that can help support expansion and relocation decisions.

- Netherlands: Elbert Waller +31 20 656 7009 waller.elbert@kpmg.nl
- United Kingdom: Andreas Dressler +49 30 2068 4398 adressler@kpmg.com
- United States: Hartley Powell +1 704 335 5583 whpowell@kpmg.com

Angela Rey
+1 604 484 4627
arey@mmkconsulting.com

Nova Scotia Business Inc. www.novascotiabusiness.com

- Ottawa Centre for Research and Innovation www.ottawaregion.com
- PEI Business Development Inc. www.peibusinessdevelopment.com
- Pôle Québec Chaudière-Appalaches www.pole-qca.ca
- Saskatchewan Enterprise and Innovation www.ei.gov.sk.ca
- Saskatoon Regional Economic Development Authority www.sreda.com
- Sherbrooke Economic Development Corporation www.sdes.ca
- Waterloo Region Canada's Technology Triangle Inc. www.techtriangle.com

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