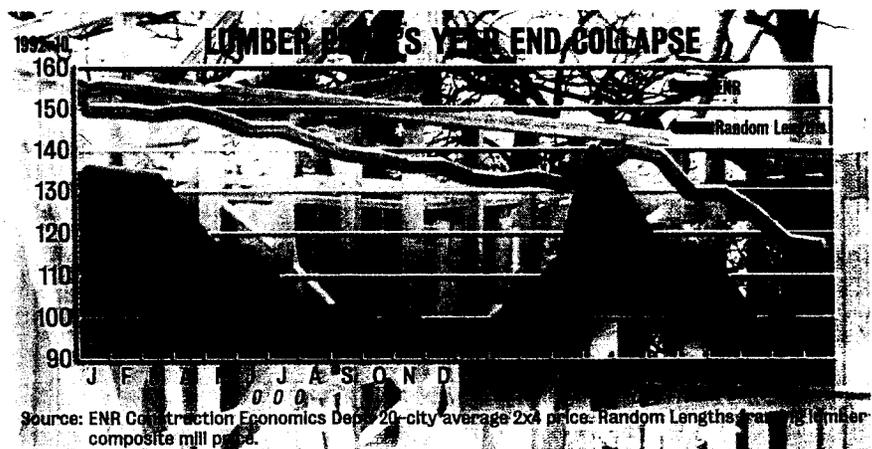


significant harm to U.S. steel makers for 12 products, including rebar and plate steel used in construction.

At a Dec. 6 meeting, the ITC issued a series of varying recommendations for import penalties. The highest tariff recommended was 40%. Other recommendations ranged from 20% for carbon and alloy plate, sheet and strip, to 10% for rebar.

DRI-WEFA believes steel prices will remain stuck at their current depressed levels through the first quarter of next year before starting to stir in the second quarter. Once demand starts picking up, prices should respond quickly, says the firm's steel analyst, John Anton. "The supply side has gotten a lot smaller," he says. However, structural steel shapes will have a weaker price recovery than other steel products, says Anton.

"If those [tariffs] go through, nobody will be able to afford to ship into this



country," says Alan L. Hubbard, purchasing manager for Portland-based fabricator Fought & Co. In particular, he worries that when the market picks back up there will not be enough domestic wide-flange capacity. For now, he is feel-

ing the pinch of the downturn. "New projects aren't bidding right now...and come the end of February, I don't know what will happen," he says.

By Tim Grogan with Tom Ichniowski and Stephen H. Daniels

INDUSTRIAL BUILDING PURCHASING PARITIES/INDEX

	PARITY RANGE VALUES		EXCHANGE RATE	INDEX U.S.=100	2001 INFLATION FORECAST (IN %)
	LOW	HIGH			
EUROPE					
AUSTRIA, Vienna ¹	0.97	1.12	1.08	96.6	2-3
BELGIUM, Brussels ¹	1.05	1.18	1.08	103.8	0-2
DENMARK, Copenhagen	8.65	9.55	8.03	113.4	1-2
FINLAND, Helsinki ¹	1.23	1.36	1.08	120.4	2-4
FRANCE, Paris ¹	1.06	1.15	1.08	102.5	2-3
GERMANY, Berlin ¹	0.96	1.07	1.08	94.1	0-1
GREAT BRITAIN, London	0.79	0.88	0.68	122.9	3-5
GREECE, Athens	347.84	386.30	367.41	94.1	4-5
IRELAND, Dublin ¹	1.07	1.19	1.08	104.7	8-10
ITALY, Rome ¹	0.93	1.02	1.08	90.7	2-3
NETHERLANDS, Amsterdam ¹	0.97	1.07	1.08	95.0	4-5
NORWAY, Oslo	6.68	9.34	8.55	105.3	4-5
POLAND, Warsaw	2.88	3.36	4.16	74.9	-10
PORTUGAL, Lisbon ¹	0.90	0.99	1.08	87.6	2-4
RUSSIA, Moscow ²	1.16	1.26	1.00	118.1	2-4
SPAIN, Madrid ¹	0.71	0.79	1.08	69.6	3-5
SWEDEN, Stockholm	9.48	10.49	10.62	94.0	4-10
SWITZERLAND, Zurich	1.94	2.14	1.59	128.4	1-2
NORTH AMERICA					
BRAZIL, Sao Paulo	1.17	1.34	2.77	45.4	8-10
CANADA, Toronto	1.04	1.08	1.57	70.4	4-6
MEXICO, Mexico City	7.28	7.98	9.48	80.5	4-5
UNITED STATES, Chicago	1.00	1.00	1.00	100.0	1-2
PACIFIC					
AUSTRALIA, Sydney	1.40	1.55	2.03	72.6	4-5
CHINA, Shanghai	4.63	5.62	8.28	61.9	2-3
JAPAN, Tokyo	139.74	161.39	116.29	129.5	0
MALAYSIA, Kuala Lumpur	1.71	2.11	3.80	50.3	0-1
NEW ZEALAND, Auckland	1.30	1.43	2.42	56.3	2-3
THAILAND, Bangkok	21.13	23.23	44.14	50.2	2-3

Source: Hanscomb/Means Report. Inflation forecast is 9/01 vs. 9/00. ¹ euro. ² U.S. dollar.

Parity Index Adjusts for Swings in Exchange Rates

The Hanscomb/Means Parity Index was designed to clarify the international cost picture, which can be distorted by gyrations in currency exchange rates. The index is based on put-in-place rates for 26 basic items used in the construction of a manufacturing facility. The parity index value in the table shows construction costs at each location relative to Chicago. A parity of 0.88 for Great Britain implies that £0.88 of construction is equivalent to \$1.00 of work in Chicago. To calculate a relative index value, divide the parity value of the exchange rate and multiply by 100. In this study, the U.S. dollar is used as the exchange rate for Russia.

For example, if a manufacturing facility costs \$575 per sq m in the U.S., what would be the approximate cost in Great Britain? Average parity is £0.83 = \$1. So, $0.83 \times \$575 = £477$ per sq m.

Purchasing parity provides a useful means of comparison since exchange rates can fluctuate significantly, yet the actual in-country costs of goods remain unchanged. Using parities also avoids problems arising from thinking in terms of a fixed percentage difference between countries, which inevitably happens with indexes.

INTERNATIONAL: Global Inflation in Retreat

All around the globe, inflation is in retreat. But next year, a deepening U.S. recession could turn that retreat into a rout, according to a forecast by Gardiner & Theobald Inc.

In its tenth annual survey of international construction costs, conducted exclusively for ENR, the London-based international project and cost management firm predicts that the average global inflation rate for building costs will slip to 1.4% next year for the 24 countries that provided forecasts. This would be a significant drop from the 3.1% and 3.7% reported by this same group of countries for 2001 and 2000, respectively (see table at right).

These inflation figures exclude extraordinary cost trends reported for Kenya and Finland. Kenya is bracing for building costs to escalate 20% a year over the next two years. Finland is experiencing the other extreme, with a severe case of deflation under way. Building costs in Finland are expected to contract 5.8% next year after falling 4.8% during 2001.

Several other nations also are battling the growing phenomena of deflation, but perhaps the most surprising is Germany. After increasing 2.5% in both 2000 and 1999, building costs in Germany slipped 0.2% this year. G&T expects this slide to continue into next year with another 0.1% decline.

Still caught in a long recession, Germany remains a "very tight market," says Gary Martin, who heads Hanscomb GmbH, in Berlin. Business "is very competitive from a contractor's and consultant's standpoint," he says.

In the former West Germany, stagnant construction demand has kept prices stable, adds Marc Sauerborn, a Hanscomb quantity surveyor in Berlin. However, in Germany's former Communist eastern states, construction prices continue to decline. In the wake of the boom created a decade ago by German unification, construction prices "are sort of slowly reaching the absolute rock bottom," Sauerborn says. However, labor costs could get a boost from proposed minimum wage legislation, he adds.

But it is in Asia where deflation seems to have taken hold. While building costs remain relatively flat in most of China, they fell 3.1% this year in Hong Kong after plunging 11.5% in 2000. G&T predicts that building costs in Hong Kong

INTERNATIONAL CONSTRUCTION COST FORECAST

ARGENTINA	
2002	+1.0
2001	+1.0
2000	-1.7
1999	-0.2

AUSTRALIA	
2002	+4.2
2001	+4.4
2000	+4.6
1999	+2.8

CHINA	
2002	+0.3
2001	0.0
2000	+0.8
1999	-0.2

CYPRUS	
2002	+5.2
2001	+10.7
2000	+11.9
1999	+6.3

HUNGARY	
2002	+6.0
2001	+7.0
2000	+9.5
1999	+10.0

SLOVAKIA	
2002	-2.8
2001	+6.0
2000	+3.1
1999	+5.3

CZECH REPUBLIC	
2002	+3.0
2001	+1.9
2000	+3.0
1999	+2.0

INDIA	
2002	+3.2
2001	+4.3
2000	+6.3
1999	+3.5

SOUTH AFRICA	
2002	+6.6
2001	+4.2
2000	+6.5
1999	+11.8

DENMARK	
2002	+4.8
2001	+3.1
2000	+4.5
1999	+1.3

ISRAEL	
2002	+2.5
2001	+0.8
2000	+2.2
1999	+2.1

SRI LANKA	
2002	+5.5
2001	+4.0
2000	+2.6
1999	+2.8

EGYPT	
2002	+3.0
2001	+3.1
2000	+3.2
1999	+3.5

ITALY	
2002	+3.0
2001	+3.1
2000	+2.4
1999	+0.8

SWEDEN	
2002	+5.5
2001	+5.0
2000	+5.2
1999	+1.8

FINLAND	
2002	-5.8
2001	-4.8
2000	+4.9
1999	+13.3

JAPAN	
2002	0.0
2001	-0.9
2000	-1.3
1999	-1.6

TAIWAN	
2002	-0.4
2001	-0.9
2000	-1.0
1999	+1.1

FRANCE	
2002	+1.6
2001	+2.3
2000	+1.1
1999	+1.6

KENYA	
2002	+20.0
2001	+7.1
2000	+2.9
1999	+6.5

UAE	
2002	0.0
2001	+1.0
2000	+1.0
1999	+1.0

GERMANY	
2002	-0.1
2001	-0.2
2000	+2.5
1999	+2.5

NEW ZEALAND	
2002	+1.3
2001	+1.7
2000	+0.8
1999	+0.6

UNITED KINGDOM	
2002	+3.5
2001	+3.5
2000	+3.5
1999	+2.5

Source: Gardiner & Theobald Inc.

will fall another 1.6% next year before rebounding 0.8% in 2003. Building costs also have been falling in Taiwan, Malaysia and Singapore.

The most chronic deflation has been in Japan. Building costs have fallen there each year since 1993 for a total of almost 19%, including this year's 0.9% decline. G&T thinks costs may have bottomed out in Japan and is predicting costs to hold steady in 2002.

Having enjoyed a resurgence in recent years, French construction demand now is "quite bumpy," says Chris Gilmore, chairman of G&T's French business in Paris. Prices of materials and products in France now are broadly stable, but law-driven wage hikes are fueling construction contract bid inflation, says Gilmore. Voluntary wage freezes, which have been widely used over the last two years to accommodate the new statutory 35-hour work week, are now lapsing, and payroll bills are again rising, he says.

By contrast with France, the U.K. market remains active, according to Paul Ridout, a G&T partner in London. "Broadly speaking, prices have stayed fairly in balance," he says. Repeated drops in bank lending rates are bringing more projects into the market, causing occasional price "hot spots" for cladding in some cities. But Ridout says construction inflation this year seems in line with his firm's 3.5% prediction, and he expects the same increases in 2002.

Italian construction prices are behaving much more erratically than in the U.K., according to Alberto Gerola, the principal at Milan-based architect engineering firm Societa Progettazioni Integrati SpA, a G&T affiliate. Prices of clay roof tiles and rendering plaster, for example, have skyrocketed by 50% while insulation products are rising at about 15%, he says.

Nevertheless, the bulk of Italian construction prices are stable or rising "with an average of 3% or less," says Gerola. Prices of sand, gravel, cement and other basics are standing still, while mechanical and electrical inflation are between 2 and 3%, he adds.

An illusion of massive price cuts will be created by Italy's adoption of the Euro currency in January. With one Euro worth nearly 2,000 lira, Italians will no longer struggle with currency bills of huge face value. But the real effect on construction prices of the Euro becoming the sole currency of most European Union nations will be minimal, believes Gerola.

At the other end of the European Union's development ladder, Greece continues to experience a construction

WORLD LABOR RATES

COUNTRY	\$/HR BASIC RATE			\$/HR TOTAL BILLING RATE		
	UNSKILLED	APPRENTICE	SKILLED	UNSKILLED	APPRENTICE	SKILLED
EASTERN EUROPE						
CZECH REPUBLIC	1.135	2.43	4.05	4.32	6.08	8.91
HUNGARY	1.17	1.98	3.03	3.30	5.34	7.83
POLAND	2.10	2.78	3.21	3.90	5.28	6.93
ROMANIA	0.76	1.11	1.27	1.14	1.84	2.22
SLOVAKIA	1.03	1.86	3.09	3.30	4.44	6.60
WESTERN EUROPE						
CYPRUS	8.71	7.25	8.19	8.27	8.89	10.14
DENMARK	16.84	19.25	21.85	22.23	25.40	28.58
FINLAND	7.68	10.09	11.90	13.25	17.62	20.48
FRANCE	7.60	9.12	10.67	14.76	18.20	20.74
GERMANY	—	—	—	—	—	—
GREECE	7.04	7.62	8.61	8.68	9.33	10.65
IRELAND	10.27	11.68	12.82	18.78	21.26	26.15
ITALY	9.25	10.17	11.56	20.37	22.08	23.40
NETHERLANDS	—	—	24.38	—	—	28.44
NORWAY	—	—	—	—	—	—
SPAIN	9.69	13.45	18.83	10.78	13.46	17.22
SWEDEN	7.96	11.26	14.04	14.04	19.19	27.14
SWITZERLAND	20.85	22.89	28.78	33.29	36.86	41.45
UNITED KINGDOM	7.19	8.21	9.58	9.47	10.87	12.88
MIDDLE EAST/AFRICA/ASIA						
AUSTRALIA, Melbourne	9.42	9.72	10.26	18.05	18.47	19.48
AUSTRALIA, Sydney	7.52	8.56	8.63	14.82	16.38	16.70
CHINA, Shanghai	0.28	0.42	0.72	0.31	0.48	0.83
CHINA, Hong Kong	9.75	—	15.39	11.67	—	17.70
EGYPT	—	—	—	—	—	—
INDIA	0.25	0.34	0.43	0.28	0.40	0.48
INDONESIA	0.20	0.27	0.33	0.30	0.41	0.51
ISRAEL	5.20	8.50	9.68	6.61	10.63	12.28
JAPAN	14.24	18.76	24.61	22.42	28.18	36.87
KENYA	0.27	0.42	0.57	0.44	0.71	0.96
MALAYSIA	—	—	—	1.45	1.64	3.03
NEW ZEALAND	6.03	8.73	10.81	7.07	10.19	12.48
OMAN	0.78	1.04	1.43	1.69	2.08	2.60
PHILIPPINES	0.60	0.72	0.84	0.69	0.83	0.96
SAUDI ARABIA	1.33	1.73	2.67	2.40	3.20	4.00
SINGAPORE	1.97	2.62	3.28	3.22	3.33	3.55
SOUTH AFRICA, Durban	0.78	1.31	1.70	1.10	1.85	2.43
SOUTH AFRICA, Johannesburg	0.94	1.22	1.56	1.10	1.41	1.84
SOUTH AFRICA, Capetown	0.99	1.61	2.15	1.23	2.01	2.79
TAIWAN	—	—	—	—	—	—
THAILAND	0.46	0.80	1.14	0.57	0.91	1.25
U.A.E.	1.23	1.25	1.36	1.63	1.72	1.99
VIETNAM	0.30	0.45	0.60	—	—	—
NORTH AND SOUTH AMERICA						
ARGENTINA	2.51	2.61	3.11	5.01	5.45	6.01
BRITISH VIRGIN ISLANDS	7.00	9.00	13.00	10.00	14.00	18.00
CAYMAN ISLANDS	15.12	20.24	26.34	18.29	24.27	37.44
USA, Honolulu	16.15	21.27	28.92	21.37	32.22	43.96
USA, Boston	29.58	33.65	43.86	42.00	47.80	62.28
Denver	15.81	22.44	26.52	27.54	36.72	42.33
Las Vegas	18.36	19.89	27.54	28.05	32.13	37.13
Los Angeles	24.33	27.87	31.46	38.35	43.86	49.34
Phoenix	17.65	20.20	22.85	27.74	31.82	36.90
Portland	29.03	32.09	34.90	36.55	38.61	43.59
San Francisco	27.50	31.50	35.65	43.35	49.58	58.81
Seattle	29.10	32.68	34.32	34.26	38.48	44.49
Washington, D.C.	15.50	23.00	29.00	25.50	38.00	47.00

Source: Gardiner & Theobald Inc. Note: Rates for total billing include guaranteed overtime, statutory and insurance contributions and importation of labor. Rates are based upon standard work week, which varies.

BUILDING INFLATION

	% CHANGE							
	1996	1997	1998	1999	2000	2001	2002	2003
EASTERN EUROPE								
CZECH REPUBLIC	3.5	10.7	8.5	2.0	3.0	1.9	3.0	5.0
HUNGARY	14.0	19.0	11.5	10.0	9.5	7.0	6.0	—
POLAND	21.1	14.1	7.0	8.6	3.7	2.6	—	—
WESTERN EUROPE								
CYPRUS	6.5	6.7	8.0	6.3	11.9	10.7	5.2	—
DENMARK	2.9	2.8	3.4	1.3	4.5	3.1	4.8	5.7
FINLAND	-7.4	9.1	11.2	13.3	4.9	-4.8	-5.8	4.5
FRANCE	2.7	1.8	1.7	1.6	1.1	2.3	1.6	—
GERMANY	2.1	-2.5	0.0	2.5	2.5	-0.2	-0.1	-0.1
IRELAND	2.6	3.4	3.3	10.2	15.7	8.8	—	—
ITALY	2.3	0.8	2.5	0.8	2.4	3.1	3.0	2.9
NETHERLANDS	1.8	2.6	1.7	5.0	3.2	5.0	—	—
NORWAY	1.7	2.0	4.1	1.8	2.3	1.7	—	—
SWEDEN	3.8	1.8	1.8	1.8	5.2	5.0	5.5	5.2
UNITED KINGDOM	5.0	5.5	4.6	2.5	3.5	3.5	3.5	3.5
MIDDLE EAST/AFRICA/ASIA								
AUSTRALIA	3.1	2.0	2.9	2.8	4.6	4.4	4.2	4.0
CHINA, Shanghai	-2.5	-2.5	-1.2	-0.2	0.8	0.0	0.3	0.5
CHINA, Hong Kong	10.2	20.0	-7.7	-4.5	-11.5	-3.1	-1.6	-0.8
EGYPT	5.4	5.1	4.9	3.3	3.2	3.1	3.0	—
INDIA	4.5	4.5	5.8	3.5	6.3	4.3	3.2	—
INDONESIA	2.3	10.0	48.5	13.8	12.1	—	—	—
ISRAEL	8.1	8.3	6.2	2.1	2.2	0.8	2.5	1.6
JAPAN	-1.3	-0.3	-2.2	-1.6	-1.3	-0.9	0.0	—
KENYA	9.1	6.7	0.0	6.3	2.9	7.1	20.0	22.2
MALAYSIA	0.9	3.2	0.4	4.0	0.8	-1.3	—	—
NEW ZEALAND	0.6	0.0	-0.4	0.6	0.8	1.7	1.3	1.3
SINGAPORE	8.9	2.7	0.0	-14.2	-8.2	—	—	—
SOUTH AFRICA	5.7	6.2	7.2	11.8	6.5	4.2	6.6	4.0
THAILAND	0.8	7.9	5.9	-14.6	32.5	—	—	—
U.A.E	0.0	4.3	8.3	0.1	0.0	1.0	0.0	—
NORTH AND SOUTH AMERICA								
ARGENTINA	-5.0	1.1	0.0	-0.2	-1.7	1.0	1.0	—
USA, Los Angeles	1.2	2.2	5.1	4.3	2.5	—	—	—
USA, San Francisco	2.6	2.6	8.3	4.7	4.5	—	—	—
USA, Seattle	2.6	5.9	3.0	3.7	3.5	—	—	—

Source: Gardner & Theobald Inc. Note: Rates are annual change for building tender price inflation. Saudi Arabia is retail price inflation.

boom. European Union infrastructure investment kindled the market and current preparations for the 2004 Olympic Games in Athens are adding more fuel. Nevertheless, construction prices are keeping track with general inflation at about 5%, says George Roditis, of G. Roditis & Partners, Athens. Local labor continues to be in short supply, but ample availability of low-cost recruits from the Balkans is holding down wages.

Eastern Europe also is in a state of flux, with Poland, the region's biggest market, showing signs of slowdown. Construction "has certainly seen a decline in workload" with big local and international contractors bidding more and more tightly to maintain backlog, says Jan Holyst, senior associate in G&T's office in Warsaw.

Construction prices in Hungary are "softening all the time," says Mark Rea, in G&T's Budapest office. With a large number of construction companies competing in a market that is cooling, "we have to be careful that contractors don't [quote] silly prices," he adds.

Market conditions are positive in Russia, where commercial construction increasingly is funded internally, says Stephen Raybould, commercial executive at the Moscow office of Bovis Lend Lease Ltd., London. But price escalation remains relatively constant. "Ruble inflation is about 15% a year, but dollar inflation is very much as elsewhere in the world," he says.

Construction materials and products are available locally, and imports are no problem if handled through a good agent, says Raybould. Wage bills are already low by western standards and reducing personal taxation is further easing price pressure. At the same time, recovering value-added tax on investments is about to become easier than before, says Raybould. □

By Peter Reina with Tim Grogan

HOW TO USE THE INTERNATIONAL COST SURVEY

Comparing construction cost data between countries with vastly different economic, political and social systems poses several hazards of which readers should be aware. Due to constantly changing market conditions and fluctuations in exchange rates, the above data should be used for broad "comparative purposes only," cautions Gardner & Theobald, London. G&T compiled the international construction cost survey from its worldwide network of offices and associated companies. All costs were provided in local currency and converted to U.S. dollars using the exchange rates in effect on Dec. 3, 2001.

The information on buildings costs includes contractors' overhead and equipment costs such as site administration, supervision and coordination, trailer hoists and cranes.

Value-added taxes are excluded from the above survey. The average building VAT for the European countries surveyed is 17.6%. However, it ranges from a low of 5% in the Czech Republic to highs of 25% in Denmark, Hungary and Sweden. In other parts of the world, building VATs vary greatly, including 3% in Singapore to 21% in Argentina. Building VATs are minimal in China, Malaysia, Saudi Arabia, Oman and the U.A.E.

INTERNATIONAL MATERIAL PRICES

	REBAR \$/TON	STEEL \$/TON	CEMENT \$/TON	CONCRETE \$/TON	AGGREGATE \$/TON	SAND \$/TON	PLASTER \$/CU YD	LUMBER \$/CU YD	BRICKS \$/1000	BLOCKS \$/SQ YD	GLASS \$/SQ YD
EASTERN EUROPE											
CZECH REPUBLIC, Prague	443.00	787.00	65.00	29.00	10.00	9.00	45.00	118.00	194.00	8.00	7.00
HUNGARY, Budapest	445.00	694.00	30.00	5.00	10.00	9.00	100.00	155.00	178.00	9.00	11.00
POLAND, Warsaw	284.00	457.00	64.00	40.00	—	3.00	90.00	175.00	170.00	5.00	6.00
ROMANIA, Bucharest	341.00	341.00	45.00	30.00	15.00	15.00	68.00	410.00	132.00	3.00	5.00
SLOVAKIA, Bratislava	371.00	652.00	55.00	25.00	8.00	6.00	36.00	97.00	164.00	7.00	6.00
WESTERN EUROPE											
CYPRUS, Nicosia	281.00	1,014.00	59.00	25.00	9.00	9.00	72.00	215.00	281.00	6.00	8.00
DENMARK, Copenhagen	439.00	439.00	204.00	59.00	14.00	14.00	262.00	—	—	10.00	—
FINLAND, Helsinki	446.00	940.00	96.00	39.00	8.00	8.00	271.00	318.00	—	7.00	26.00
FRANCE, Paris	710.00	866.00	123.00	54.00	19.00	25.00	—	—	—	15.00	22.00
GERMANY, Frankfurt	—	—	—	—	—	—	—	—	—	—	—
GREECE, Athens	295.00	532.00	63.00	27.00	11.00	11.00	75.00	226.00	263.00	6.00	9.00
IRELAND, Dublin	563.00	910.00	205.00	61.00	9.00	7.00	102.00	813.00	398.00	5.00	29.00
ITALY, Milan	305.00	509.00	92.00	51.00	12.00	11.00	109.00	110.00	92.00	8.00	22.00
NETHERLANDS, Amsterdam	756.00	1,237.00	97.00	60.00	22.00	26.00	145.00	238.00	164.00	19.00	23.00
NORWAY, Oslo	—	—	—	—	—	—	—	—	—	—	—
SPAIN, Barcelona	323.00	295.00	86.00	49.00	1,345.00	—	17.00	103.00	54.00	—	18.00
SWEDEN, Stockholm	374.00	599.00	90.00	64.00	19.00	10.00	243.00	429.00	262.00	12.00	16.00
SWITZERLAND, Zurich	855.00	1,053.00	137.00	63.00	21.00	24.00	168.00	185.00	—	12.00	32.00
UNITED KINGDOM, London	499.00	713.00	128.00	72.00	17.00	17.00	197.00	240.00	257.00	10.00	27.00
MIDDLE EAST/AFRICA /ASIA											
AUSTRALIA, Melbourne	658.00	624.00	126.00	36.00	23.00	20.00	137.00	328.00	253.00	9.00	11.00
AUSTRALIA, Sidney	468.00	572.00	117.00	46.00	18.00	15.00	—	418.00	234.00	7.00	24.00
CHINA, Shanghai	295.00	362.00	44.00	29.00	7.00	7.00	27.00	134.00	32.00	3.00	5.00
CHINA, Hong Kong	239.00	442.00	72.00	44.00	11.00	8.00	77.00	148.00	72.00	8.00	5.00
INDIA, New Delhi	386.00	522.00	563.00	40.00	19.00	6.00	46.00	1,037.00	34.00	7.00	9.00
INDONESIA, Jakarta	220.00	392.00	40.00	23.00	5.00	39.00	—	—	24.00	—	4.00
ISRAEL, Tel Aviv	425.00	1,441.00	90.00	33.00	11.00	7.00	189.00	—	—	5.00	13.00
JAPAN, Tokyo	227.00	589.00	71.00	75.00	19.00	22.00	—	329.00	—	10.00	14.00
KENYA, Nairobi	51.00	76.00	127.00	—	11.00	10.00	—	116.00	—	5.00	10.00
MALAYSIA, Kuala Lumpur	316.00	711.00	53.00	25.00	13.00	5.00	118.00	147.00	55.00	4.00	—
NEW ZEALAND, Auckland	524.00	665.00	92.00	53.00	11.00	17.00	—	270.00	283.00	8.00	43.00
OMAN, Muscat	519.00	1,442.00	75.00	26.00	3.00	5.00	57.00	218.00	—	5.00	11.00
PHILIPPINES, Manila	348.00	443.00	77.00	44.00	13.00	9.00	—	191.00	—	—	48.00
SAUDI ARABIA, Riyadh	387.00	1,067.00	75.00	41.00	8.00	5.00	93.00	163.00	—	3.00	31.00
SINGAPORE	279.00	388.00	44.00	19.00	6.00	6.00	—	30.00	74.00	4.00	12.00
SOUTH AFRICA, Durban	316.00	1,167.00	49.00	32.00	9.00	6.00	117.00	275.00	73.00	3.00	11.00
SOUTH AFRICA, Johannesburg	321.00	866.00	51.00	24.00	12.00	7.00	58.00	130.00	39.00	6.00	11.00
SOUTH AFRICA, Capetown	340.00	973.00	44.00	31.00	9.00	7.00	117.00	223.00	63.00	3.00	11.00
TAIWAN, Taipei	—	—	—	—	—	—	—	—	—	—	—
THAILAND, Bangkok	267.00	458.00	55.00	44.00	4.00	3.00	114.00	—	11.00	6.00	6.00
U.A.E., Dubai	256.00	408.00	46.00	27.00	10.00	16.00	231.00	33.00	—	3.00	10.00
VIETNAM, Hanoi	298.00	298.00	57.00	25.00	10.00	16.00	231.00	33.00	—	3.00	10.00
NORTH AND SOUTH AMERICA											
ARGENTINA, Buenos Aires	401.00	802.00	112.00	50.00	20.00	6.00	119.00	61.00	120.00	6.00	17.00
BRITISH VIRGIN ISLANDS	780.00	3,100.00	130.00	115.00	55.00	55.00	—	352.00	—	11.00	67.00
GAYMAN ISLANDS	679.00	5,386.00	207.00	191.00	47.00	47.00	—	452.00	—	13.00	39.00
USA, Boston	550.00	1,450.00	90.00	76.00	—	—	—	175.00	300.00	27.00	62.00
Denver	880.00	2,090.00	240.00	69.00	24.00	17.00	395.00	270.00	325.00	25.00	65.00
Honolulu	982.00	2,566.00	144.00	67.00	39.00	52.00	419.00	297.00	523.00	39.00	49.00
Las Vegas	830.00	1,620.00	165.00	63.00	10.00	8.00	150.00	157.00	380.00	9.00	37.00
Los Angeles	750.00	1,700.00	178.00	84.00	12.00	10.00	165.00	161.00	335.00	19.00	48.00
Phoenix	715.00	1,487.00	217.00	84.00	20.00	16.00	323.00	194.00	320.00	13.00	44.00
Portland	551.00	1,433.00	88.00	66.00	10.00	9.00	129.00	119.00	450.00	10.00	45.00
San Francisco	825.00	1,870.00	196.00	93.00	14.00	12.00	182.00	177.00	365.00	22.00	53.00
Seattle	551.00	1,433.00	86.00	71.00	10.00	9.00	127.00	122.00	450.00	10.00	45.00

Source: Gardner & Theobald Inc., New York City, London and worldwide. Notes: Prices include delivery to site & local discounts, but exclude VAT & local taxes. Prices are for high-yield steel rebar, structural steel, all grades aggregate, coarse sand, framing Lumber, clay bricks, 4-in. concrete blocks, 1/4-in. glass.

INTERNATIONAL RESIDENTIAL AND RETAIL BUILDING COSTS

	APARTMENT			CAPITAL CITY HOTEL			SUBURBAN HOTEL		
	LOW	HIGH	# FLOORS	LOW	HIGH	# FLOORS	LOW	HIGH	# FLOORS
EASTERN EUROPE									
CZECH REPUBLIC, Prague	43.00	63.00	10	88.00	138.00	8	57.00	75.00	3
HUNGARY, Budapest	46.00	55.00	7	79.00	116.00	7	43.00	64.00	4
POLAND, Warsaw	52.00	91.00	2	97.00	133.00	—	73.00	106.00	—
SLOVAKIA, Bratislava	33.00	48.00	10	67.00	96.00	8	43.00	58.00	3
WESTERN EUROPE									
DENMARK, Copenhagen	95.00	162.00	6	201.00	279.00	10	168.00	228.00	3
FRANCE, Paris	74.00	84.00	10	114.00	139.00	8	178.00	203.00	4
GERMANY, Frankfurt	—	—	—	—	—	—	—	—	—
GREECE, Berlin	53.00	76.00	—	91.00	129.00	—	53.00	76.00	—
IRELAND, Dublin	95.00	137.00	5	190.00	243.00	5	158.00	201.00	4
ITALY, Milan	82.00	159.00	4	106.00	159.00	4	75.00	127.00	2
NETHERLANDS, Amsterdam	55.00	90.00	10	162.00	187.00	8	141.00	165.00	4
SPAIN, Madrid	75.00	125.00	12	100.00	150.00	15	75.00	125.00	10
SWEDEN, Stockholm	69.00	86.00	4	152.00	177.00	3	118.00	134.00	3
UNITED KINGDOM, London	123.00	205.00	8	195.00	235.00	10	146.00	179.00	4
MIDDLE EAST/AFRICA/ASIA									
AUSTRALIA, Melbourne	65.00	87.00	15	118.00	150.00	—	94.00	130.00	—
AUSTRALIA, Sydney	70.00	97.00	15	106.00	145.00	30	85.00	97.00	—
CHINA, Shanghai	37.00	49.00	35	99.00	135.00	25	79.00	112.00	15
CHINA, Hong Kong	113.00	143.00	45.00	133.00	191.00	25	—	—	—
EGYPT, Alexandria	—	—	—	—	—	—	—	—	—
INDIA, New Delhi	16.00	25.00	15	74.00	126.00	10	27.00	34.00	7
INDONESIA, Jakarta	34.00	38.00	—	55.00	64.00	—	42.00	51.00	—
ISRAEL, Tel Aviv	39.00	44.00	10	93.00	121.00	10	75.00	83.00	3
JAPAN, Tokyo	149.00	183.00	20	220.00	329.00	20	183.00	206.00	10
KENYA, Nairobi	—	—	—	44.00	65.00	6	35.00	47.00	5
MALAYSIA, Kuala Lumpur	15.00	46.00	15	37.00	86.00	—	29.00	61.00	—
NEW ZEALAND, Auckland	54.00	73.00	20	89.00	100.00	—	70.00	81.00	—
OMAN, Muscat	62.00	106.00	—	66.00	119.00	—	51.00	93.00	—
PHILIPPINES, Manila	32.00	48.00	30	59.00	72.00	35	36.00	43.00	8
SAUDI ARABIA, Riyadh	77.00	126.00	7	99.00	120.00	7	79.00	127.00	4
SINGAPORE	88.00	109.00	25	114.00	146.00	—	98.00	107.00	—
SOUTH AFRICA, Durban	25.00	41.00	6	45.00	54.00	4	27.00	36.00	1
SOUTH AFRICA, Johannesburg	23.00	25.00	—	45.00	54.00	—	27.00	32.00	—
SOUTH AFRICA, Capetown	27.00	45.00	—	45.00	54.00	—	27.00	36.00	—
TAIWAN, Taipei	—	—	14	—	—	15	—	—	10
THAILAND, Bangkok	38.00	47.00	20	59.00	74.00	20	32.00	42.00	3
U.A.E., Dubai	53.00	101.00	15	63.00	152.00	15	53.00	89.00	7
VIETNAM, Hanoi	67.00	83.00	—	100.00	125.00	—	79.00	97.00	—
NORTH AND SOUTH AMERICA									
ARGENTINA, Buenos Aires	37.00	51.00	25	65.00	84.00	20	42.00	51.00	4
BRITISH VIRGIN ISLAND	79.00	111.00	3	139.00	186.00	4	111.00	149.00	4
CAYMAN ISLANDS	111.00	194.00	3	167.00	221.00	—	111.00	167.00	—
USA, Boston	133.00	286.00	—	173.00	245.00	—	133.00	173.00	—
Denver	83.00	123.00	10	185.00	261.00	8	158.00	208.00	3
Honolulu	78.00	171.00	10	204.00	246.00	10	145.00	204.00	10
Los Angeles	57.00	85.00	20	181.00	199.00	7	114.00	140.00	6
Phoenix	71.00	87.00	16	142.00	180.00	—	62.00	79.00	2
Portland	107.00	199.00	20	150.00	219.00	20	102.00	163.00	5
San Francisco	69.00	117.00	25	204.00	267.00	20	132.00	166.00	6
Seattle	112.00	204.00	20	153.00	224.00	20	107.00	167.00	5

Source: Gardner & Theobald, Inc., New York City, London and worldwide. Note: Apartment is multiunit with elevators finished to a high standard. Capital City Hotel is high quality in excess of 400 rooms with conference facilities and extensive restaurants, retail and service areas. Suburban Hotel is for market priced accommodations.

INTERNATIONAL COMMERCIAL AND INDUSTRIAL BUILDING COSTS

	OFFICE WITH AIR CONDITIONING			INDUSTRIAL			BUSINESS PARK		
	\$/SQ FT		# FLOORS	\$/SQ FT		# FLOORS	\$/SQ FT		# FLOORS
	LOW	HIGH		LOW	HIGH		LOW	HIGH	
EASTERN EUROPE									
CZECH REPUBLIC, Prague	56.00	95.00	6	26.00	62.00	1	50.00	70.00	6
HUNGARY, Budapest	50.00	69.00	7	28.00	35.00	1	45.00	66.00	3
POLAND, Warsaw	79.00	123.00	—	36.00	60.00	1	—	—	—
ROMANIA, Bucharest	63.00	86.00	10	—	—	—	—	—	—
SLOVAKIA, Bratislava	50.00	73.00	6	21.00	48.00	1	42.00	54.00	6
WESTERN EUROPE									
CYPRUS, Nicosia	47.00	94.00	—	28.00	65.00	—	58.00	116.00	—
DENMARK, Copenhagen	112.00	179.00	6	61.00	112.00	1	89.00	112.00	3
FINLAND, Helsinki	116.00	143.00	5	66.00	81.00	1	99.00	116.00	2
FRANCE, Paris	127.00	178.00	6	41.00	63.00	1	95.00	127.00	3
GERMANY, Frankfurt	—	—	—	—	—	—	—	—	—
GREECE, Athens	49	99.00	—	27.00	58.00	—	61.00	122.00	—
IRELAND, Dublin	164.00	232.00	5	48.00	63.00	1	116.00	127.00	1
ITALY, Milan	86.00	140.00	6	43.00	103.00	1	118.00	172.00	1
NETHERLANDS, Amsterdam	107.00	141.00	8	43.00	68.00	—	97.00	113.00	1
NORWAY, Oslo	—	—	—	—	—	1	—	—	4
SPAIN, Barcelona	70.00	112.00	10	25.00	50.00	—	62.00	100.00	4
SWEDEN, Stockholm	120.00	143.00	4	78.00	95.00	3	85.00	103.00	1
SWITZERLAND, Zurich	118.00	158.00	—	66.00	102.00	2	90.00	113.00	2
UNITED KINGDOM, London	172.00	249.00	8	32.00	63.00	1	129.00	162.00	4
MIDDLE EAST/AFRICA/ASIA									
AUSTRALIA, Melbourne	99.00	118.00	17	22.00	30.00	1	62.00	70.00	3
AUSTRALIA, Sydney	80.00	145.00	50	20.00	33.00	1	53.00	80.00	3
CHINA, Shanghai	73.00	95.00	25	30.00	51.00	2	88.00	107.00	3
CHINA, Hong Kong	122.00	161.00	45	54.00	77.00	15	162.00	197.00	4
EGYPT, Alexandria	—	—	—	—	—	—	—	—	—
INDIA, New Delhi	28.00	34.00	10	21.00	25.00	1	25.00	32.00	6
INDONESIA, Jakarta	42.00	55.00	—	19.00	25.00	—	36.00	42.00	—
ISRAEL, Tel Aviv	63.00	72.00	7	18.00	20.00	1	63.00	72.00	6
JAPAN, Tokyo	181.00	229.00	16	37.00	102.00	1	115.00	181.00	10
KENYA, Nairobi	38.00	52.00	8	21.00	29.00	1	—	—	—
MALAYSIA, Kuala Lumpur	24.00	44.00	30	11.00	17.00	2	—	—	—
NEW ZEALAND, Auckland	70.00	81.00	25	12.00	23.00	—	39.00	50.00	2
OMAN, Muscat	53.00	88.00	—	27.00	66.00	—	—	—	—
PHILIPPINES, Manila	34.00	45.00	40	18.00	25.00	2	36.00	39.00	8
SAUDI ARABIA, Riyadh	77.00	128.00	7	50.00	74.00	1	—	—	—
SINGAPORE	101.00	118.00	25	33.00	47.00	—	91.00	109.00	—
SOUTH AFRICA, Durban	22.00	33.00	5	10.00	22.00	1	—	—	—
SOUTH AFRICA, Johannesburg	19.00	23.00	—	12.00	10.00	—	—	—	—
SOUTH AFRICA, Capetown	25.00	34.00	—	12.00	23.00	—	—	—	—
TAIWAN, Taipei	—	—	15	—	—	2	—	—	8
THAILAND, Bangkok	47.00	59.00	30	15.00	19.00	2	—	—	—
U.A.E., Dubai	51.00	89.00	20	25.00	51.00	1	51.00	70.00	3
VIETNAM, Hanoi	74.00	92.00	—	30.00	37.00	—	63.00	74.00	—
NORTH AND SOUTH AMERICA									
ARGENTINA, Buenos Aires	56.00	75.00	20	14.00	19.00	1	42.00	81.00	3
BRITISH VIRGIN ISLANDS	102.00	102.00	3	58.00	70.00	1	—	—	—
CAYMAN ISLANDS	177.00	265.00	5	44.00	66.00	1	—	—	—
USA, Boston	133.00	224.00	—	61.00	163.00	1	92.00	184.00	—
Denver	118.00	143.00	30	40.00	75.00	1	—	—	—
Honolulu	97.00	190.00	—	40.00	62.00	1	97.00	156.00	3
Los Angeles	120.00	166.00	10	49.00	65.00	1	136.00	185.00	2
Phoenix	89.00	111.00	15	33.00	51.00	1	66.00	89.00	3
Portland	143.00	204.00	20	61.00	87.00	1	107.00	183.00	3
San Francisco	128.00	178.00	10	54.00	71.00	1	149.00	198.00	2
Seattle	153.00	209.00	20	66.00	87.00	1	112.00	168.00	3

Source: Gardiner & Theobald Inc., New York City, London worldwide. Note: Offices include raised floors, carpeting, suspended ceilings, HVAC, lighting and power, but exclude drywall. Office building height is typical of major city in country. Industrial building is for large single story unit with steel frame and aluminum cladding. Research facility is two-story, with a first floor warehouse and second floor suitable for high-tech work.