

# Global Cities

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Santiago



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World Workstation

# SANTIAGO

**TOTAL BUSINESS TAX RATE**  
**25.9%**  
% of Profits

**COST OF LIVING**  
**37%**  
New York=100%

**2008 OFFICE-USING EMPLOYMENT L.Q.**  
**0.59**  
GC Average=1.00

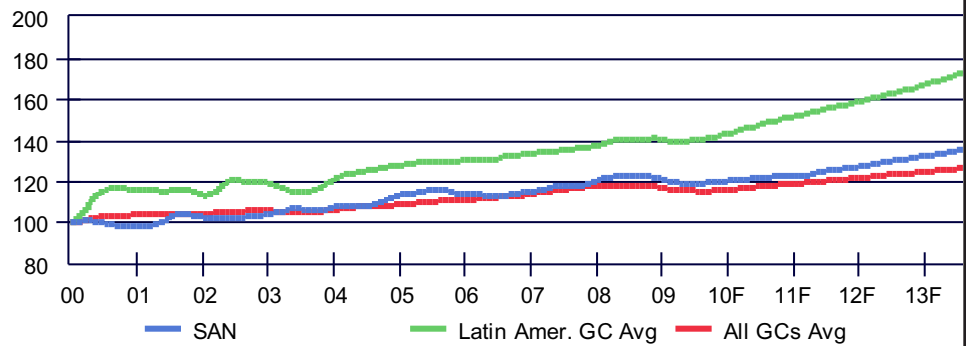
**EASE OF EMPLOYING WORKERS**  
**68**  
Best=1 Worst=178

## CREDIT QUALITY

**MOODY'S RATING**

**N/A**

## Relative Employment Performance (2000=100)



2003	2004	2005	2006	2007	2008	2009	Indicators	2010	2011	2012	2013	2014
21,773.7	23,120.2	24,469.9	25,432.1	26,555.1	27,151.1	27,195.1	<b>Gross value added, 03 CLP bil</b>	28,572.4	29,834.1	31,166.0	32,583.2	33,630.0
3.6	6.2	5.8	3.9	4.4	2.2	0.2	% change yr ago	5.1	4.4	4.5	4.5	3.2
2,407.2	2,482.4	2,603.1	2,580.6	2,664.8	2,772.2	2,710.6	<b>Total employment, ths</b>	2,760.1	2,832.4	2,942.9	3,056.2	3,156.0
3.3	3.1	4.9	-0.9	3.3	4.0	-2.2	% change yr ago	1.8	2.6	3.9	3.8	3.3
9.1	10.1	8.9	7.9	7.2	7.9	9.8	<b>Unemployment rate</b>	8.1	7.8	7.5	6.7	6.3
5.0	6.9	12.3	10.2	12.8	14.3	6.1	<b>Earnings growth (%)</b>	9.4	10.6	11.3	11.5	11.0
6,428.5	6,502.5	6,574.1	6,642.2	6,711.5	6,779.5	6,855.1	<b>Population, ths</b>	6,924.2	6,987.6	7,052.1	7,116.3	7,179.2
8.6	12.4	10.1	6.6	7.1	7.4	9.8	<b>Net migration, ths</b>	2.7	-3.6	-3.2	-4.2	-5.9
58.7	59.8	65.8	72.5	70.9	59.7	46.6	<b>Housing permits, ths</b>	107.8	80.4	91.7	99.7	97.2
na	na	na	na	na	na	na	<b>House prices, CLP ths</b>	na	na	na	na	na
na	na	na	na	na	na	na	% change yr ago	na	na	na	na	na
na	na	na	na	na	na	na	<b>Personal bankruptcies, #</b>	na	na	na	na	na
na	na	na	na	na	na	na	<b>Business bankruptcies, #</b>	na	na	na	na	na

## STRENGTHS & WEAKNESSES

### STRENGTHS

- Manufacturing and financial hub of Chile and the Andean countries.
- Low tax burden attracts foreign direct investment.

### WEAKNESSES

- Santiago has no port facility and relies on Valparaiso, more than two hours away.
- February's earthquake damaged infrastructure links.

## ANALYSIS

**Recent Performance.** Santiago's economy is recovering from last year's recession and February's earthquake. The unemployment rate fell to 8.1% in the quarter ending in June from 9.4% in the first quarter of the year. Construction, financial services, and transportation are driving job growth, enticing many people back into the labor force.

Nevertheless, the local recovery is not yet a self-sustaining expansion. Industrial production has yet to increase significantly, a prerequisite for job growth. Meanwhile retail, SAN's second largest industry, is losing jobs.

**Earthquake.** Recovery from the severe earthquake that weighed on the economy in the second quarter will boost local growth in the latter half of the year. The destruction was not enough to paralyze economic activity for a prolonged period of time, but the impact on the transportation infrastructure included collapsed highways and bridges, suspension of operations at the international airport for a couple of days, and damage at the Port of Valparaiso, where most of the area's exports and imports are shipped and received.

Now SAN is benefiting from a US\$30 billion reconstruction fund to finance ongoing repairs. The stimulus will benefit construction, supporting the anemic economic recovery. Already the industry has created 16,000 jobs since the beginning of the year.

**Private construction.** Private sector construction will remain anemic. Building permits were down 55% in June compared with the year before. Slack in the residential and commercial real estate markets will persist until the recovery in manufacturing and office-using employment strengthens at the end of 2010 and into 2011. The private sector's contribution to gains in the local construction industry will be modest until then.

**Public sector.** Other public sector job growth will slow in the coming months as the ongoing fis-

cal stimulus is withdrawn. Until now, the nation's solid financial position has allowed the public sector to mitigate job losses during the recession, and most of these jobs were concentrated in SAN. Since the beginning of the year, the public sector has added 7,000 jobs locally. Now, however, as the labor market begins to improve, the Chilean government will slow its own hiring.

**Hospitality.** In the short term, a continuing revival in leisure travel will support the local hotel and transportation industries, as they have for the past nine months. So far, most of the gains have come from increased domestic travel, but that will change as the global economy in general, and Latin America in particular, rebound.

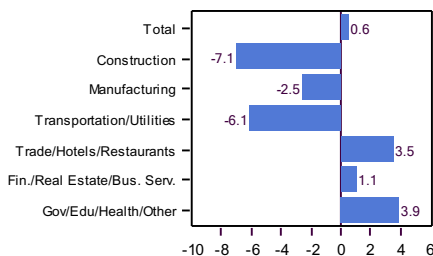
In the long run, growth in tourism will be more dependent on SAN expanding as a business hub in Chile and in western South America. This is likely because SAN already accounts for nearly half of all Chilean economic activity and already benefits significantly from catering to high-spending business travelers.

**Santiago's recovery will lag behind other economies in Latin America and Asia, in part as a result of the earthquake in the second quarter of the year. However, the additional fiscal stimulus from rebuilding efforts will help to support near-term growth. By early 2011, growth in manufacturing, retail and tourism will help complete the recovery. In the long run, favorable migration trends, a highly educated workforce, and low costs of doing business when compared with other global cities in Latin America will drive economic growth. This will allow SAN to remain the financial and industrial hub of Chile and the Andean countries for years to come.**

*Martin Soler Garcia*  
July 2010

## CURRENT EMPLOYMENT TRENDS

### 2010Q1 % change yr ago



## FORECAST RISKS

SHORT TERM

LONG TERM

### UPSIDE

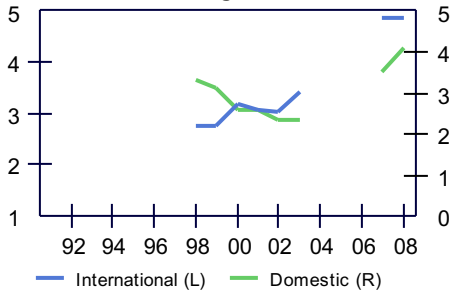
- SAN sees a recovery in foreign direct investment as the global economy strengthens.
- Large stimulus dedicated to rebuilding efforts will augment growth in 2010.

### DOWNSIDE

- Damaged infrastructure in surrounding areas complicates local exports.
- Stimulus fades without manufacturing and retail creating jobs.

## TRAVEL

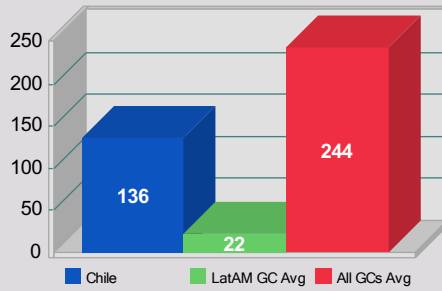
### Airport Traffic Passengers, mil



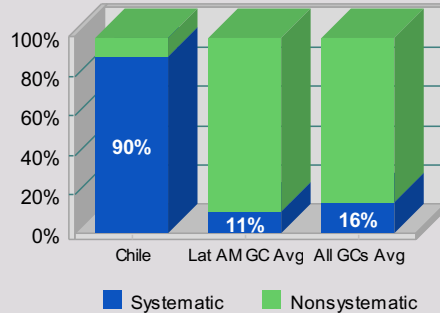
Source: Airports Council International

## EMPLOYMENT VOLATILITY

### RELATIVE TO



### DUE TO FLUCTUATIONS IN



## LARGEST COMPANIES BY SALES

\$ bil, 2008

Company	Industry	Sales
Antarchile	Diversified Financials	10.4
Cencosud	Retailing	9.7
Falabella	Retailing	5.9
LAN Airlines	Transportation	3.7
CMPC	Materials	3.0
Banco de Chile	Banking	2.9
BCI-Banco Credito	Banking	1.9
SQM	Chemicals	1.2

Sources: Forbes Global 2000, Moody's Analytics

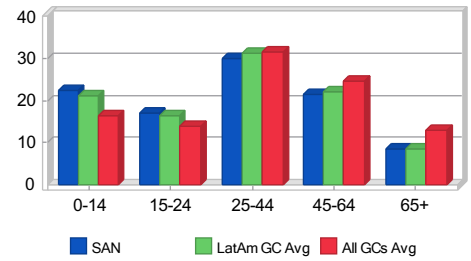
## COMPARATIVE EMPLOYMENT AND INCOME

Sector	% of Total Employment			Average Annual Earnings		
	GC Avg			GC Avg		
	SAN	L.A.	All	SAN	L.A.	All
Construction	8.9%	4.7%	4.9%	\$6,911	\$7,819	\$25,371
Manufacturing	16.5%	15.2%	15.6%	\$6,633	\$11,616	\$19,892
Transportation/Utilities	8.8%	7.3%	7.1%	\$10,949	\$10,979	\$21,230
Trade/Hotels/Restaurants	22.4%	24.0%	19.7%	\$5,439	\$4,909	\$21,736
Fin./Real Estate/ Bus. Serv.	13.1%	23.1%	22.0%	\$12,676	\$9,753	\$30,044
Gov/Edu/Health/Other	30.0%	25.2%	31.4%	\$11,783	\$32,763	ND

Sources: INEC, 2007

## DEMOGRAPHICS

### Population by Cohort % of population, 2008



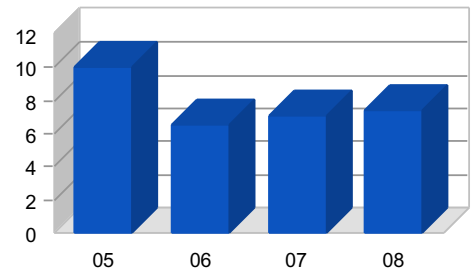
### Comparing Populations

	Pop. (mil)	5-yr CAGR, %
Santiago	6.8	1.1%
Chile	16.5	1.0%
Lat. America GCs Avg	12.7	1.0%
All GCs Avg	7.3	1.1%

Sources: INEC, Moody's Analytics

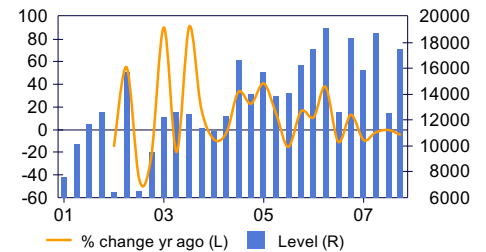
## MIGRATION FLOWS

### Net Migration Ths



## RESIDENTIAL REAL ESTATE

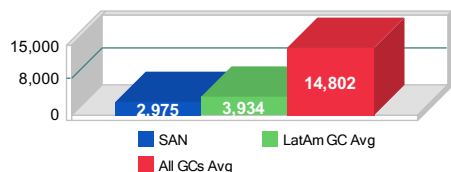
### Residential permits, #



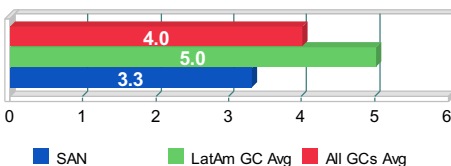
Sources: INEC, Moody's Analytics

## EARNINGS PER CAPITA

### Purchasing Power Parity, \$



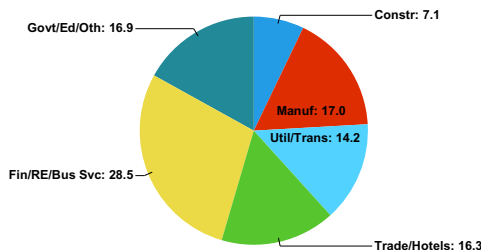
### 5-yr, CAGR, %



Sources: INEC, Moody's Analytics, 2007

## GROSS VALUE ADDED BY SECTOR

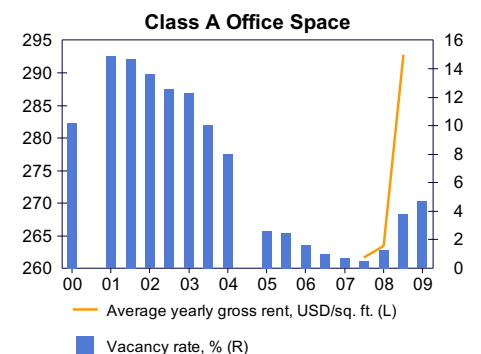
### % of total



Sources: Central Bank of Chile, Moody's Analytics, 2007

## COMMERCIAL REAL ESTATE

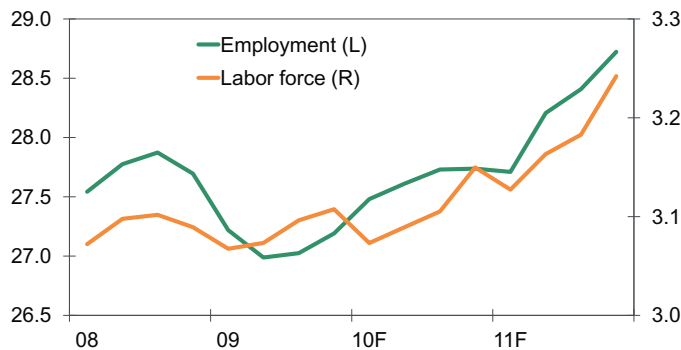
### Office Rent \$/sq. ft., December 2009 **\$30.49**



Sources: Colliers International Property Consultants, Inc., Moody's Analytics

## Job Creation Will Attract Labor Force Entrants

Mil, 3-mo MA

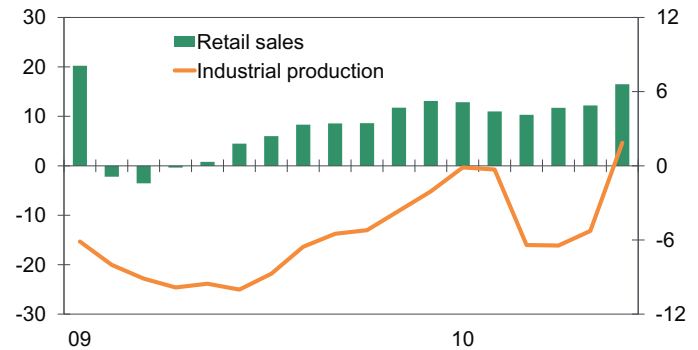


Sources: INE, Moody's Analytics

A revival in the second half of the year will help to generate jobs in Santiago. Fiscal stimulus to help repair infrastructure damaged by the earthquake will help the local economy to grow above trend in the third quarter, since the metro area accounts for nearly half of the national economy. In turn, this growth will help to feed a broader recovery, attracting more people to the labor market, resulting in a rebound in manufacturing and retail employment. Above-trend growth is anticipated for 2011.

## Demand Up, but No Industrial Job Gains Yet

% change yr ago

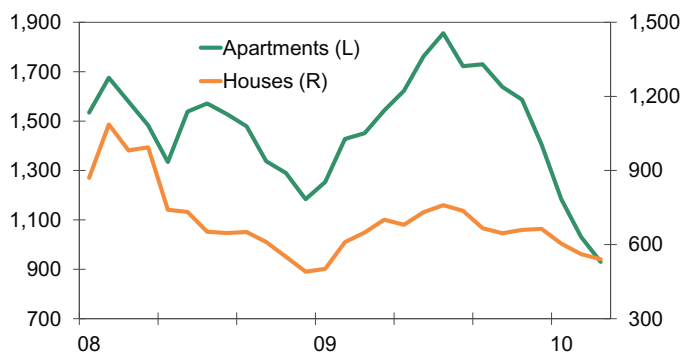


Sources: INE, Moody's Analytics

Reviving retail sales in Santiago have not yet stimulated domestic industrial production enough to boost local manufacturing employment. One reason is that, to this point, increases in household spending have been focused on imported goods of such items as autos and household appliances. However, the boost provided by incomes earned by construction workers repairing infrastructure damaged by the earthquake will enable the recovery to expand to the point that local production and manufacturing employment increase.

## Residential Real Estate Has Yet to Recover

Sales, 3-mo MA

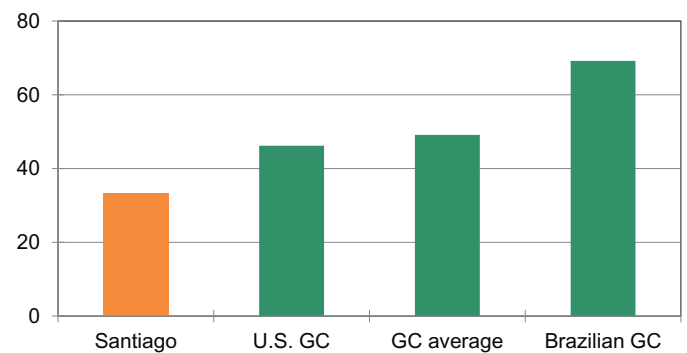


Sources: Camara Chilena de Construcción, Moody's Analytics

Santiago's residential real estate market will begin to rebound in mid-2011, but at present, housing continues to show declines in sales and excess supplies in both the apartment and the house markets remain elevated. Excess supply in the apartment market reached 38 months in March, up from 14 months a year earlier, whereas supply of houses is now at 27 months, up from 19 months a year earlier. Housing will recover once labor market conditions improve and credit markets normalize.

## Lowest Corporate Taxes in Western Hemisphere

Corporate taxes, % of profits



Sources: World Bank, Moody's Analytics

In the long run, Santiago's low business costs will allow it to continue attracting investment, thereby further stimulating expansion in the metro area. Low corporate taxes and relatively high housing affordability are what drove its emergence as a regional financial and manufacturing hub in recent years. Additionally, Santiago has a highly educated labor force and good infrastructure linkages. These factors also make the area an attractive place to live and establish a corporate headquarters.

# USER'S GUIDE

## GEOGRAPHY

Moody's Analytics defines Santiago using the definition of the Chilean national government. Santiago refers to the Santiago Metropolitan Region, established by the Chilean government in 1980. This definition of Santiago includes the provinces of Chacabuco, Cordillera, Maipo, Melipilla, Santiago and Talagante.

## OFFICE-USING EMPLOYMENT LOCATION QUOTIENT

Concentration of office-using employment is defined by its location quotient, using all global cities as the base.

The location quotient of office employment is derived using the following formula:  
Concentration =  $[(\text{FINEMP}_i + \text{BUSEMP}_i) / \text{EMP}_i] / [\sum (\text{FINEMP}_i + \text{BUSEMP}_i) / \sum \text{EMP}_i]$

where  $\text{EMP}_i$  = total employment in global city  $i$ ,  $\text{FINEMP}_i$  = financial employment in global city  $i$ , and  $\text{BUSEMP}_i$  = business services employment in global city  $i$ . The location quotient is bounded below by 0. A value below 1 means that the global city has a smaller concentration of office employment than other global cities and a value above 1 means that the global city has a higher concentration of office employment than other global cities.

## EMPLOYMENT VOLATILITY

Employment volatility is defined as the standard deviation in a global city's year-over-year percentage nonagricultural employment growth relative to the standard deviation in the comparative geography's year-over-year percentage nonagricultural employment growth over the 1998 to 2007 period. Volatility of 100 means that employment volatility in a global city is equal to employment volatility in the comparative geography.

## EMPLOYMENT VOLATILITY DUE TO REGIONAL FLUCTUATIONS

Volatility due to fluctuations in comparative geographies (also known as "systematic volatility") is defined as:  $\text{SYSVOL} = (R_i^2)^{1/2}$

where  $\text{SYSVOL}$  is systematic volatility and  $R_i^2$  is the proportion of the total variance in global city  $i$ 's growth rate that is associated with contemporaneous fluctuations in the growth of the comparative geography.

Volatility not due to fluctuations in comparative geographies (also known as "nonsystematic volatility") is defined as:  $\text{NONSYS} = 1 - (R_i^2)^{1/2}$

where  $\text{NONSYS}$  is nonsystematic volatility in the global city and  $(R_i^2)^{1/2}$  is the proportion of the total variance in global city  $i$ 's growth rate that is associated with contemporaneous fluctuations in the growth of the comparative geography.

Formulas modified from "Assessing Regional Economic Stability: A Portfolio Approach," *Economic Review* (Federal Reserve Bank of San Francisco), Winter 1990.

## BOND RATINGS

Bond ratings for bonds issued by subnational government entities are available from Moody's Investors Service. Not all subnational government entities issue bonds and thus some areas will have an "NA" here. Moody's interpretation of their bond ratings is as follows:

- Aaa** Best quality, smallest degree of investment risk.
- Aa** High quality, margins of protection not as large as in Aaa.
- A** Upper medium grade obligations, adequately secured.
- Baa** Medium grade obligations, neither highly protected nor poorly secured.
- Ba** Speculative; future cannot be considered as well-assured.
- B** Lacking characteristics of desired investment.

Modifiers 1, 2 and 3 correspond to the higher to lower ends of a generic category.

No bond rating currently appears in this section as no local governmental authority corresponding to Santiago appears on the Moody's International Public Finance Ratings List. If and when one appears, it will be used in this section.

The bond ratings reported in Moody's Global Cities are the local currency ratings, which measure the credit performance of obligations denominated in the local currency and therefore exclude the transfer risk relevant for foreign-currency obligations.

## COST OF LIVING

Cost of living data are found in the publication "Price and Earnings," published by UBS Wealth Management Research. UBS obtains data for its cost of living indexes for 71 cities from surveys conducted by a variety of organizations and supervised by UBS. Data are obtained on 122 goods and services. UBS accounts for exchange rates by using the average daily spot rate over the three-month period immediately before publication of their data.

## EASE OF EMPLOYING LABOR

The ease of employing labor ranking is a numerical ranking of countries. The original source material is Doing Business 2009 by the World Bank and the International Finance Corporation. It is based on their rigidity of employment index, which measures three factors: the difficulty of hiring, the rigidity of hours employed, and the difficulty of firing.

## TOTAL TAX RATE

The total tax rate is an estimated tax rate faced by businesses in the global city. The original source material is Doing Business 2009 by the World Bank and the International Finance Corporation. The total tax rate includes the estimated impact of a variety of taxes, including profit taxes and property taxes as well as social contributions mandated by local labor laws.

## LARGEST CORPORATIONS HEADQUARTERED IN THE METRO AREA

The list of the largest corporate headquarters is based on the 2008 Forbes Global 2000. The top companies in terms of sales are used to approximate breadth of global linkages.

## AIR TRAFFIC VOLUME

Air traffic volume is the number of passengers using a city's principal airports in a given year, as reported by the Airports Council International. Enplanement data are divided into domestic and international passengers. For Santiago, the principal airport is Comodoro Arturo Merino Benítez International (sometimes called Pudahuel) (SCL).

## PER CAPITA INCOME AND AVERAGE ANNUAL EARNINGS

Per capita income and average annual earnings are first measured in the local currency, then converted to U.S. dollar equivalent values using a purchasing-power parity measure rather than directly using exchange rates. The purchasing-power parity methodology allows a direct comparison of the costs faced by local consumers, many of which involve nontradable goods that exchange rates fail to capture. In addition, exchange rates usually represent market-clearing prices in financial markets, where most transactions involve financial contracts, which rarely, if ever, directly affect a consumer's true purchasing power. Therefore, the purchasing-power parity method of comparison of income is favored over the exchange-rate method of comparison by most active researchers in international economics today.

## NET MIGRATION

Net migration is defined as the residual population growth not accounted for by births and deaths. Thus, net migration is given by the sum of the population in a year and total deaths less the population in the prior year and total births and is estimated using the population, births and deaths data.

## COMMERCIAL REAL ESTATE

Vacancy rates and gross rental rates for Class A offices are published by Colliers International's Global Office Real Estate Review. Class A gross rental rates are reported in U.S. dollars per square foot per year and in local currency per square foot or square meter per year, depending on local use of the metric system, and include taxes, service charges and operating expenses for premier office space. Vacancy rates are defined as the percentage of unoccupied completed office space in Class A, B and C buildings. Colliers converts rental rates outside the U.S. from the local currency to U.S. dollars using period-end exchange rates, converts square meters to square feet, and converts per-month data to a per-year basis where applicable to ensure comparability with U.S. data. For cities with more than one real estate market, information about the principal market is published.

# USER'S GUIDE

## DATA SOURCES

Indicator	Units	Primary Source	Note
Employment	Ths	Instituto Nacional de Estadísticas – Chile (INEC)	Monthly global city data on employment are converted to a quarterly frequency and seasonally adjusted.
Output (gross value added)	00 CLP bil	Central Bank of Chile	Global city data on output are interpolated to a quarterly frequency using national output data and global city output shares. Data are estimated to be consistent with national published information.
Wages (earnings by industry)	CLP mil	INEC	Global city data on earnings by industry are calculated from monthly data on total earnings and wage index data, and are interpolated to a quarterly frequency using industry GDP shares. Data are estimated to be consistent with national published information.
Population	Ths	INEC	Global city data on population are interpolated to a quarterly frequency using monthly global city data for the adult (over 15 years of age) population. Data are seasonally adjusted and are estimated to be consistent with national published information.
Births and deaths	Ths	INEC	Monthly global city data on births and deaths are converted to a quarterly frequency and seasonally adjusted.
Labor force	Ths	INEC	Monthly global city data on the labor force are converted to a quarterly frequency and seasonally adjusted.
Unemployment rate	%	INEC	Monthly global city data on the unemployment rate are converted to a quarterly frequency and seasonally adjusted.
Housing permits	#	INEC	Monthly global city data on housing permits are converted to a quarterly frequency and seasonally adjusted.

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