



WECC Global PCB Production Report For 2007

Published July 2008
(Revised September 2008)

A Product of the Partnership Among the WECC Member Associations
on Behalf of their Members in the Electronic Circuits Industry Worldwide



© Copyright 2008, World Electronic Circuits Council. All rights reserved under international copyright conventions. Any copying, scanning or other reproduction of these materials without the prior written consent of the copyright holder is strictly prohibited.

WECC Global PCB Statistical Program

Development Team

The World Electronic Circuits Council (WECC) is a strategic partnership formed in 1998 by the major trade organizations serving member companies in the global electronic circuits industry. Its purpose is to increase the global influence and effectiveness of its member organizations for the benefit and improvement of the industry. The member associations cooperate on standards, market research, marketing, resource development, environmental issues, world trade and economic/political affairs.

The member organizations of WECC formed a working group in 2005 to pool their statistical resources and produce a global statistical report on printed circuit board (PCB) production for the benefit of their members. The WECC Global Statistics Working Group includes the following individuals and organizations:

- ◆ Kevin Yan, Information Center Director, China Printed Circuit Association (CPCA), kevin_yyh@cPCA.org.cn
- ◆ Konrad Wundt, Executive Director, European Institute of Printed Circuits (EIPC), konrad.wundt@mie.de
- ◆ Manda Wong, Administration Officer, Hong Kong Printed Circuit Association (HKPCA), mandawong@hkPCA.org
- ◆ Sharon Starr, Director of Market Research, IPC, sharonstarr@ipc.org
- ◆ R. Chellappa, Secretary General, Indian Printed Circuit Association (IPCA), ipca@ipcaIndia.org
- ◆ Masato Shishido, Assistant General Manager, Japan Electronics Packaging and Circuits Association (JPCA), shishido@jPCA.org
- ◆ Jiuk Jeong, Manager, Korea Printed Circuit Association (KPCA), jiuk@kPCA.or.kr
- ◆ Michelle Hung, Manager of Market Information Department, Taiwan Printed Circuit Association (TPCA), michelle@tpca.org.tw

Please contact the representative at your association with any questions about the report or suggestions for improving this program.

Availability

The *WECC Global PCB Production Reports* are available only from these participating associations to their members. The reports are not available for sale.

Methodology

The *WECC Global PCB Production Report* includes estimates of PCB production by country or region based on the data collected by the WECC organizations from their member PCB companies. The estimates in these reports may differ from estimates published by other sources due to differences in methodology. There is no hard data on worldwide PCB production, only estimates based on data collected from representative samples of the companies in the industry.

WECC has published its Global PCB Production Reports since 2005. The reports are published annually. For the sake of comparability, all of the estimates are reported in U.S. dollars. The values reported are nominal, and are not adjusted for inflation or for fluctuations in exchange rates.

Year-on-year growth rates, however, have been adjusted for currency fluctuations, due to the significant decline in the value of U.S. dollars. A table of average exchange rates for the period is included as an appendix to each report.

Confidentiality Policy

It is the WECC organizations' policy never to share any company-specific information with other associations (including the other WECC members) or with their member companies. Only aggregate data are shared for the compilation of this report. In this way, WECC maintains complete confidentiality for all member companies.

Definitions

PCB production attributed to a country or region reflects the value of the PCBs produced there, regardless of where the companies are headquartered, and should not be confused with the PCB market (i.e., where PCBs are sold).

Flexible circuit values reflect bare circuits only. Many flexible circuit producers also offer assembly and other value-added services. Because these producers sell assembled or partially assembled boards, it can be difficult for them to separate the value of the bare circuits from total sales. Based on estimates from these producers, the data shown in this report are estimates of bare board value only, not including other services or components.

Estimates of 2007 PCB Production Value

The member associations collected production data from companies producing PCBs in their countries or regions. Every effort was made to eliminate duplication between the associations' survey samples. For flexible circuits, the value of assembly and other services was deducted to estimate the value of bare circuits. These data were then extrapolated to arrive at estimates of total PCB production by country or region and by product category.

The countries and regions included in this analysis produce nearly all of the world's PCBs, based on value. The totals below, therefore, do not represent total world production, but production of the major PCB-producing countries and regions.

Estimates of Total 2007 PCB Production in the World's Major Producing Areas (in millions of U.S. dollars)

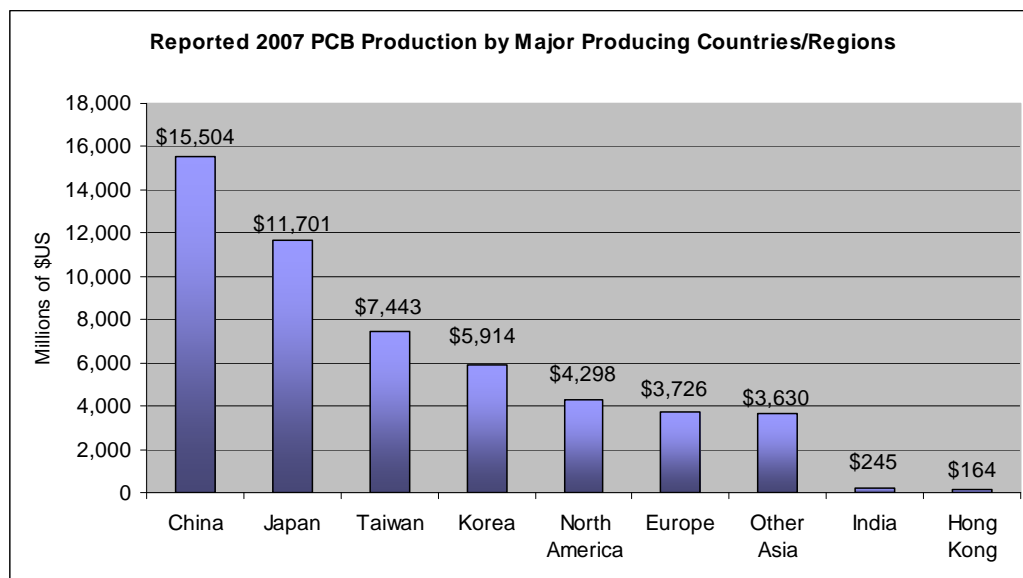
Country or Region Where PCBs Were Produced	Rigid 1-2 Sided	Standard Multilayer	HDI/Microvia/ Build-Up	IC substrate	Flexible Circuits*	Rigid Flex*	Others	Total Estimated PCB Production
China	\$ 3,726	\$ 7,312	\$ 3,518	\$ 441	\$ 502	\$ 5	\$ -	\$ 15,504
Japan	\$ 1,488	\$ 2,327	\$ 1,248	\$ 4,577	\$ 1,781	\$ 101	\$ 179	\$ 11,701
Taiwan	\$ 433	\$ 2,101	\$ 1,614	\$ 2,584	\$ 610	\$ 101	\$ -	\$ 7,443
Korea	\$ 428	\$ 1,326	\$ 1,059	\$ 1,465	\$ 1,219	\$ 417	\$ -	\$ 5,914
North America	\$ 384	\$ 3,305	\$ 203	\$ 63	\$ 216	\$ 127	\$ -	\$ 4,298
Europe	\$ 1,132	\$ 1,539	\$ 545	\$ 50	\$ 211	\$ 138	\$ 111	\$ 3,726
Other Asia**	\$ 480	\$ 456	\$ 268	\$ 326	\$ 2,101	\$ -	\$ -	\$ 3,630
India	\$ 174	\$ 57	\$ 11	\$ 1	\$ 2	\$ -	\$ -	\$ 245
Hong Kong	\$ 2	\$ 109	\$ 19	\$ 33	\$ 2	\$ -	\$ -	\$ 164
Total Production of Major PCB Producing Countries/Regions	\$ 8,246	\$ 18,532	\$ 8,484	\$ 9,541	\$ 6,642	\$ 889	\$ 290	\$ 52,624

* Bare circuits only, not including assembly or other value-added services

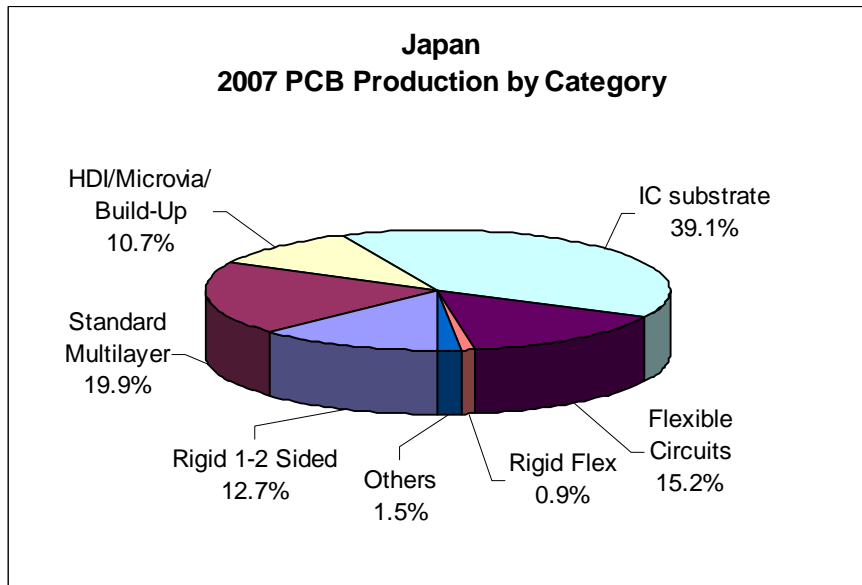
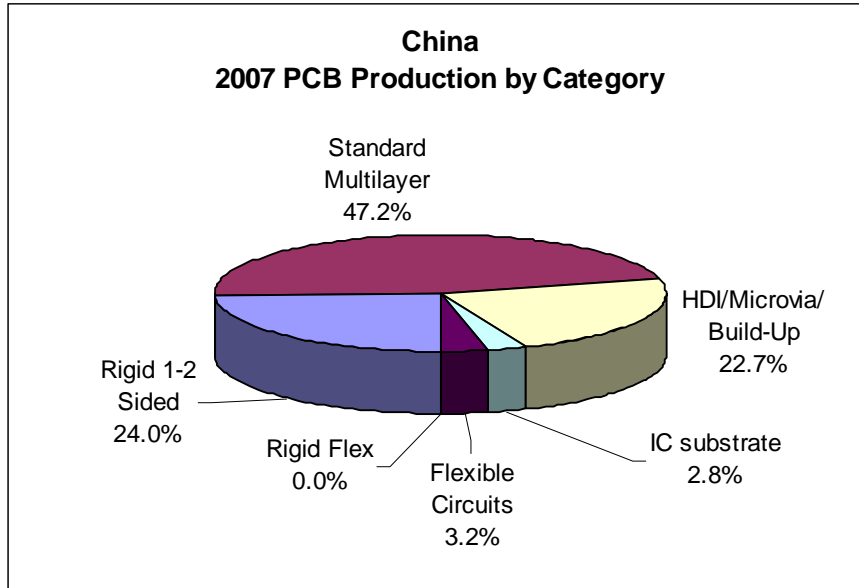
** Other Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam

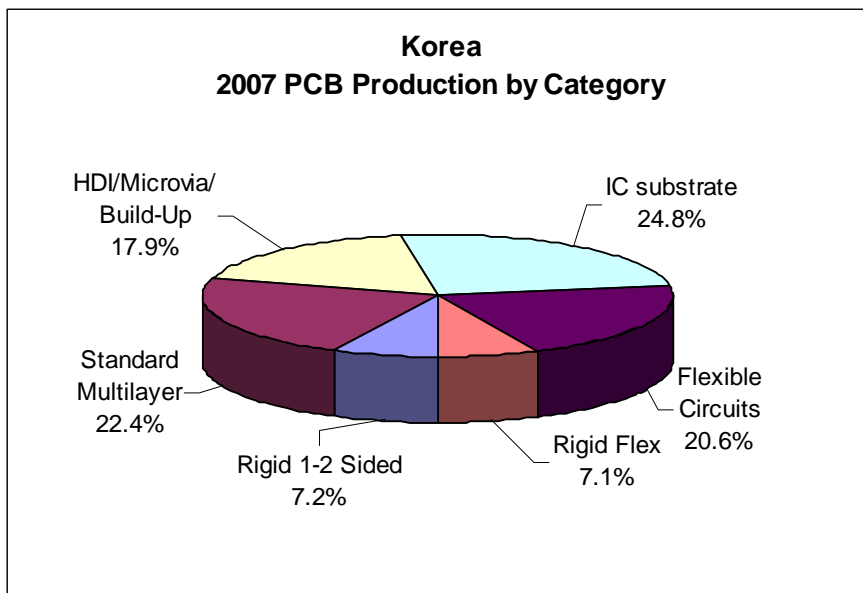
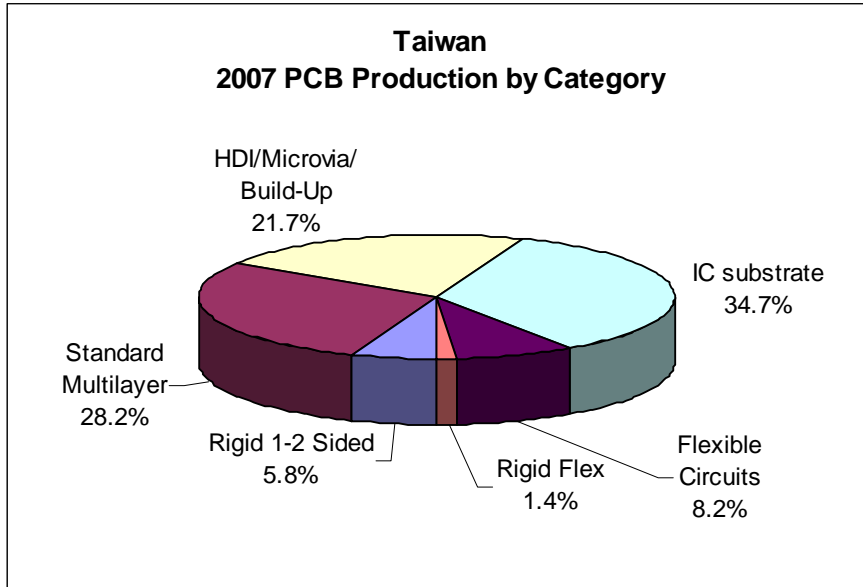
*** The revenue data in this report are nominal and have not been adjusted for inflation or exchange rate fluctuations. Please see the appendix on exchange rates to determine the impact on amounts in specific currencies.

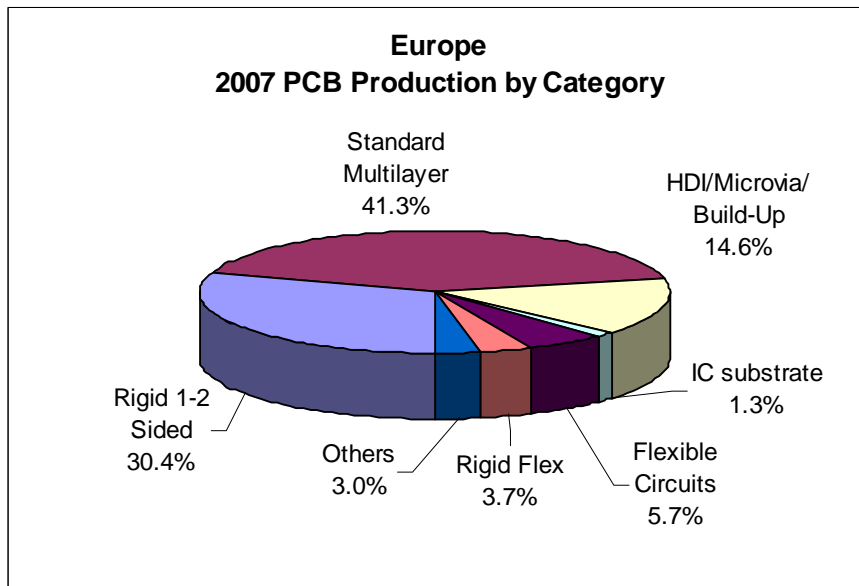
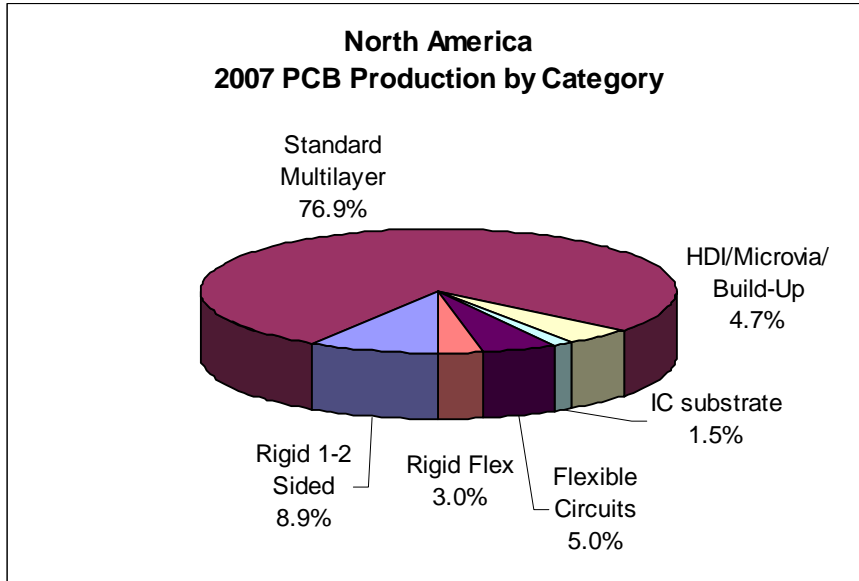
Note: Totals may vary slightly from the sums of the numbers in the table due to rounding.

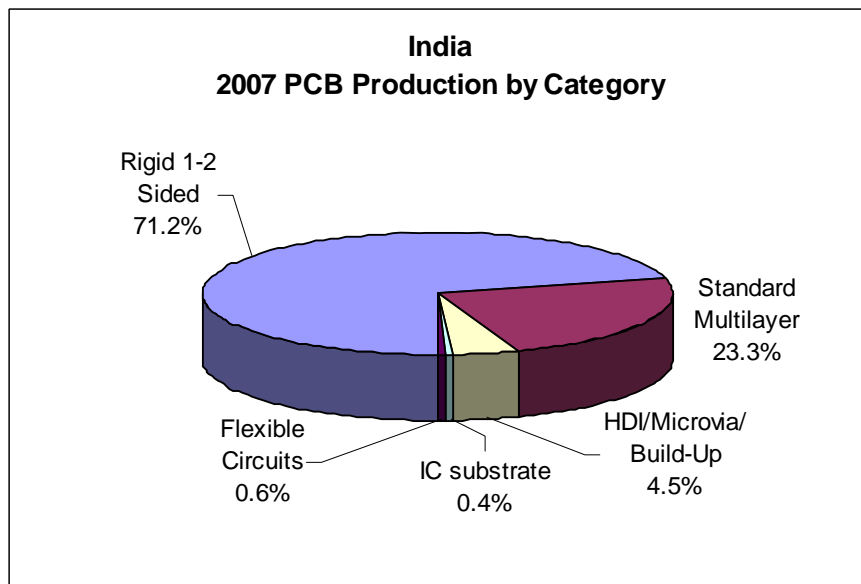
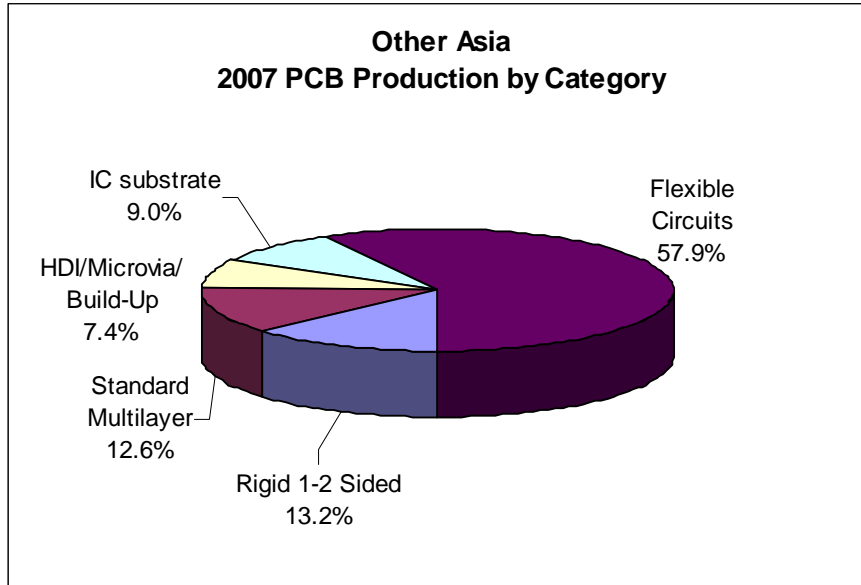


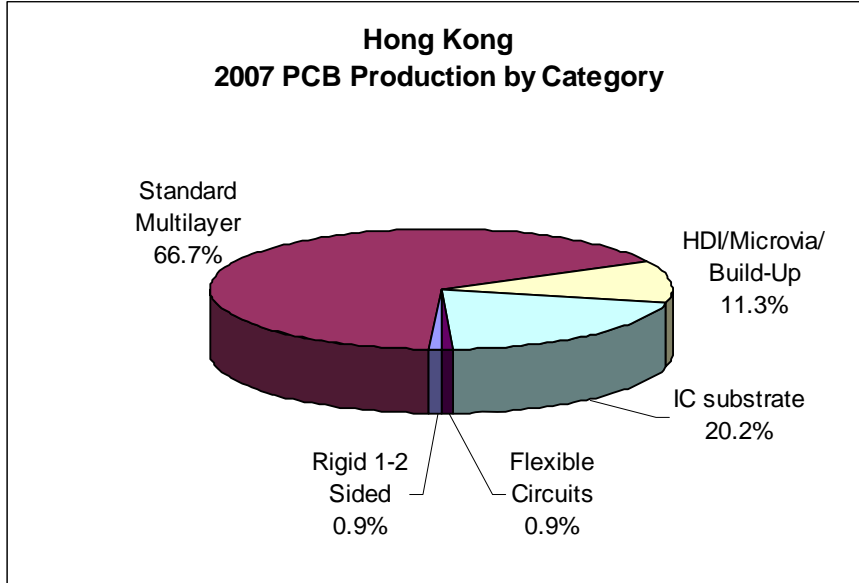
**Profiles of Major PCB Producing Countries/Regions
by Product Category**





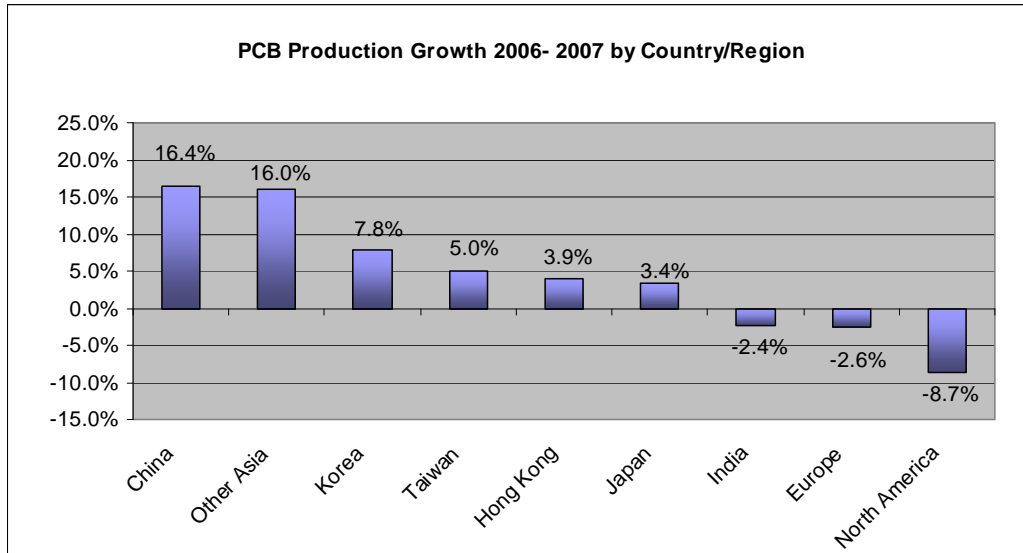






Industry Growth

Overall, the PCB industry worldwide grew 6.7 percent from 2006 to 2007. This percentage and the growth rates shown below are based on nominal data in which inflation was not factored out, but exchange rate fluctuations were factored out.



Appendix: Average Exchange Rates for 2007

		2006 Average Exchange Rate (=1.00 USD)	2007 Average Exchange Rate (=1.00 USD)	Currency (ISO Code)	% Change
ASIA/PACIFIC	Australia	1.33	1.20	AUD	-10.0%
	China	7.98	7.62	CNY	-4.6%
	Hong Kong	7.77	7.80	HKD	0.4%
	India	45.32	41.36	INR	-8.7%
	Indonesia	9183.77	9138.50	IDR	-0.5%
	Japan	116.34	117.81	JPY	1.3%
	Malaysia	3.68	3.45	MYR	-6.3%
	New Zealand	1.54	1.36	NZK	-11.7%
	North Korea	141.00	140.00	KPW	-0.7%
	Pakistan	60.25	60.82	PKR	0.9%
	Philippines	51.41	46.21	PHP	-10.1%
	Singapore	1.59	1.51	SGD	-5.2%
	South Korea	969.90	935.27	KRW	-3.6%
	Taiwan	32.56	32.88	TWD	1.0%
	Thailand	37.99	32.53	THB	-14.4%
Vietnam	16435.76	16421.39	VND	-0.1%	
EUROPE	Austria	0.80	0.73	EUR	-8.3%
	Belgium	0.80	0.73	EUR	-8.3%
	Czech Republic	22.63	20.33	CZK	-10.2%
	Denmark	5.94	5.44	DKK	-8.4%
	Finland	0.80	0.73	EUR	-8.3%
	France	0.80	0.73	EUR	-8.3%
	Germany	0.80	0.73	EUR	-8.3%
	Hungary	210.83	184.02	HUF	-12.7%
	Ireland	0.80	0.73	EUR	-8.3%
	Italy	0.80	0.73	EUR	-8.3%
	Netherlands	0.80	0.73	EUR	-8.3%
	Norway	6.42	5.86	NOK	-8.6%
	Poland	3.11	2.77	PLN	-10.9%
	Portugal	0.80	0.73	EUR	-8.3%
	Russia	27.19	25.58	RUB	-5.9%
	Slovakia	29.71	24.74	SKK	-16.7%
	Spain	0.80	0.73	EUR	-8.3%
	Sweden	7.38	6.76	SEK	-8.4%
Switzerland	1.25	1.20	CHF	-4.2%	
Turkey	1.44	1.31	TRY	-9.2%	
United Kingdom	0.54	0.50	GBP	-8.0%	
THE AMERICAS	Canada	1.13	1.07	CAD	-5.3%
	Mexico	10.92	10.94	MXN	0.2%
	USA	1.00	1.00	USD	0.0%

Source: www.oanda.com/convert/fxhistory