

Big MacCurrencies The Dollar No Longer Looks Cheap Compared with the Other Big Currencies

AS THE yen plunges and sterling soars, economists are being forced to revise their currency forecasts. To help them get their teeth into the subject, *The Economist* has updated its Big Mac index, which seeks to make exchange-rate theory a bit more digestible.

The Big Mac index is based upon the theory of purchasing-power parity (PPP), the notion that a dollar should buy the same amount in all countries. Supporters of PPP argue that in the long run, the exchange rate between two currencies should move towards the rate that would equalise the prices of an identical basket of goods and services in each country.

Our "basket" is a McDonald's Big Mac, produced in 110 countries. The Big Mac PPP is the exchange rate that would leave hamburgers costing the same in America as abroad. Comparing actual rates with PPPs signals whether a currency is under- or overvalued. (For more details on the index, check www.economist.com.)

The first column of the table shows local-currency prices of a Big Mac; the second converts the prices into dollars. The cheapest Big Macs are now in Indonesia and Malaysia, where they cost \$1.16. At the other extreme, Big Mac fans in Switzerland have to pay \$3.87. Given that Americans in four cities pay an average of \$2.56, the rupiah and the ringgit look massively undervalued, the Swiss franc massively overvalued.

The third column calculates Big Mac PPP. For example, dividing the Japanese price by the American price gives a dollar PPP of ¥109. On April 6th, the exchange rate was ¥135, implying that the yen is 19% undervalued against the dollar. Three years ago the index suggested that the yen was 100% overvalued against the dollar.

Likewise, the D-mark is now only 5% overvalued, against 50% in April 1995.

Thanks to the dollar's rise-long predicted by burgernomics – it is now closer to its PPP against other big currencies than for many years. Indeed, only five currencies in the table are now significantly overvalued against the greenback, among them Britain's, Sweden's and Denmark's. All three countries have decided not to adopt Europe's single currency, the euro, next year. The pound is 19% overvalued against the dollar, which implies it is 14% overvalued against the D-mark. In contrast, the currencies of the euro-block countries are close to Mparity against the D-mark.

The most dramatic changes in the index over the past year are in East Asia, where devaluations have left currencies significantly undervalued. This competitive advantage, however, is being eroded by inflation. In Indonesia, the price of a Big Mac has more than doubled over the past year. East European currencies also look cheap, with the Hungarian forint 52% undervalued against the dollar.

The Big Mac index is not a perfect measure of PPP. Price differences may be distorted by trade barriers on beef, sales taxes, local competition and changes in the cost of non-traded inputs such as rents. But despite its flaws, the Big Mac index produces PPP estimates close to those derived by more sophisticated methods. A currency can deviate from PPP for long periods, but several studies have found that the Big Mac PPP is a useful predictor of future movements – enabling the hungry investor to get rich by putting his money where his mouth is.

The hamburger standard

	Big Mac prices		Implied PPP* of the dollar	Actual \$ exchange rate 6/4/98	Under (-)/over(+) valuation against dollar, %
	in local currency	in dollars			
United States†	\$2.56	2.56	-	-	-
Argentina	Peso 2.50	2.50	0.98	1.00	-2
Australia	A\$ 2.65	1.75	1.04	1.51	-32
Austria	Sch 34.0	2.62	13.28	12.96	+2
Belgium	BFr 109	2.87	42.58	38.00	+12
Brazil	Real 3.10	2.72	1.21	1.14	+6
Britain	£ 1.84	3.05	1.39‡	1.66‡	+19
Canada	C\$ 2.79	1.97	1.09	1.42	-23
Chile	Peso 1,250	2.75	488	455	+7
China	Yuan 9.90	1.20	3.87	8.28	-53
Czech Republic	CKr 54.0	1.57	21.1	34.4	-39
Denmark	DKr 23.8	3.39	9.28	7.02	+32
France	FFr 17.5	2.84	6.84	6.17	+11
Germany	DM 4.95	2.69	1.93	1.84	+5
Hong Kong	HK\$ 10.2	1.32	3.98	7.75	-49
Hungary	Forint 259	1.22	101	213	-52
Indonesia	Rupiah 9,900	1.16	3,867	8,500	-55
Israel	Shekel 12.50	3.38	4.88	3.70	+32
Italy	Lire 4,500	2.47	1,758	1,818	-3
Japan	¥ 280	2.08	109	135	-19
Malaysia	M\$ 4.30	1.16	1.68	3.72	-55
Mexico	Peso 17.9	2.10	6.99	8.54	-18
Netherlands	Fl 5.45	2.63	2.13	2.07	+3
New Zealand	NZ\$ 3.45	1.90	1.35	1.82	-26
Poland	Zloty 5.30	1.53	2.07	3.46	-40
Russia	Rouble 12,000	2.00	4,688	5,999	-22
Singapore	S\$ 3.00	1.85	1.17	1.62	-28
South Africa	Rand 8.00	1.59	3.13	5.04	-38
South Korea	Won 2,600	1.76	1,016	1,474	-31
Spain	Pta 375	2.40	146	156	-6
Sweden	SKr 24.0	3.00	9.38	8.00	+17
Switzerland	SFr 5.90	3.87	2.30	1.52	+51
Taiwan	NT\$ 68.0	2.06	26.6	33.0	-20
Thailand	Baht 52.0	1.30	20.3	40.0	-49

*Purchasing-power parity: local price divided by price in United States

†Average of New York, Chicago, San Francisco and Atlanta ‡Dollars per pound

Source: McDonald's