

Big MacCurrencies

The Economist offers some hot tips on exchange rates

SOME readers find our Big Mac index hard to swallow. This year, however, has been one to relish for burgeronomics. When the euro was launched at the start of the year, most forecasters expected it to rise. The Big Mac index, however, suggested the euro was overvalued against the dollar—and it has indeed fallen.

The Big Mac index was devised 13 years ago as a light-hearted guide to whether currencies are at their "correct" level. It is based upon one of the oldest concepts in international economics: purchasing-power parity (PPP)—the notion that a dollar, say, should buy the same amount in all countries. In the long run, argue PPP fans, currencies should move towards the rate which equalises the prices of an identical basket of goods and services in each country.

Our "basket" is a McDonald's Big Mac, which is produced in more than 100 countries. The Big Mac PPP is the exchange rate that would leave hamburgers costing the same in America as abroad. Comparing actual exchange rates with PPPs signals whether a currency is under- or over-valued.

Our correspondents have once again been munching their way around the globe. The first column of the table shows local-currency prices of a Big Mac; the second converts them into dollars. The American price (the average in four cities, including tax) has dropped by 5% over the past year, to \$2.43. Elsewhere, the cheapest Big Mac is in Malaysia (\$1.19), whereas in Switzerland it costs a beefy \$3.97. Hence the Swiss franc is the

most overvalued currency (by 64%), the ringgit the most undervalued (by 51%).

The third column calculates Big Mac PPPs. For example, dividing the Japanese price by the American price gives a dollar PPP of ¥121, implying that the yen is spot on McParity. The price of a Big Mac varies widely within the euro area, but the average price (weighted by GDP) in the 11 countries is €2.52, or \$2.71 at current exchange rates. This implies that despite its fall, the euro is still 11% overvalued. The table also



shows prices in the euro's biggest member countries—ranging from the equivalent of \$2.87 in France to \$2.43 in Spain. Since their currencies are now irrevocably fixed, this gap can only be narrowed by prices falling in France or rising in Spain.

The currencies of the European economies that have decided to stay outside the euro are all noticeably overvalued. For example, according to the Big Mac index, sterling is overvalued by 26% against the dollar and by 13% against the euro.

In contrast, most of the emerging-market currencies, notably those in East Asia, Russia and Brazil, are significantly undervalued against the dollar, following large devaluations. There is one big exception: the Israeli shekel is 42% overvalued.

We admit that the Big Mac is an imperfect measure of PPP, because prices may be distorted by trade barriers, sales taxes and differences in the cost of non-traded inputs such as rents. But experience suggests that investors ignore burgeronomics at their peril.

It is now time to lay down our chips: according to the Big Mac index, sterling and the other non-euro currencies will fall over the next year or so; the shekel is likely to suffer a sharp fall; but China, where Big Macs are almost as cheap as in Malaysia, does not need to devalue the yuan.

The hamburger standard

	Big Mac prices		Implied PPP* of the dollar	Actual \$ exchange rate 30/03/99	Under(-)/over (+) valuation against the dollar, %
	in local currency	in dollars			
United States†	\$2.43	2.43	—	—	—
Argentina	Peso2.50	2.50	1.03	1.00	+3
Australia	A\$2.65	1.66	1.09	1.59	-32
Brazil	Real2.95	1.71	1.21	1.73	-30
Britain	£1.90	3.07	1.28‡	1.61‡	+26
Canada	C\$2.99	1.98	1.23	1.51	-19
Chile	Peso1,25	2.60	518	484	+7
China	Yuan9.90	1.20	4.07	8.28	-51
Denmark	DKr24.75	3.58	10.19	6.91	+47
Euro area	Euro2.52	2.71	0.97§	1.08§	+11
France	Ffr8.50	2.87	7.20	6.10	+18
Germany	DM4.95	2.72	2.04	1.82	+12
Italy	Lire4,500	2.50	1,852	1,799	+3
Netherlands	F15.45	2.66	2.24	2.05	+10
Spain	Pta375	2.43	154	155	0
Hong Kong	HK\$10.2	1.32	4.20	7.75	-46
Hungary	Forint299	1.26	123	237	-48
Indonesia	Rupiah14,500	1.66	5,967	8,725	-32
Israel	Shekel13.9	3.44	5.72	4.04	+42
Japan	¥294	2.44	121	120	0
Malaysia	M\$4.52	1.19	1.86	3.80	-51
Mexico	Peso19.9	2.09	8.19	9.54	-14
New Zealand	NZ\$3.40	1.82	1.40	1.87	-25
Poland	Zloty5.50	1.38	2.26	3.98	-43
Russia	Rouble33.5	1.35	13.79	24.7	-44
Singapore	S\$3.20	1.85	1.32	1.73	-24
South Africa	Rand8.60	1.38	3.54	6.22	-43
South Korea	Won3,000	2.46	1,235	1,218	+1
Sweden	SKr24.0	2.88	9.88	8.32	+19
Switzerland	SFr5.90	3.97	2.43	1.48	+64
Taiwan	NT\$70.0	2.11	28.8	33.2	-13
Thailand	Baht52.0	1.38	21.4	37.6	-43

*Purchasing-power parity: local price divided by price in United States
 †Average of New York, Chicago, San Francisco and Atlanta ‡Dollars per pound §Dollars per euro
 Source: McDonald's