

Economía Internacional

Capítulo 5

Paridad de poder de compra

La **PPP** se basa en la “ley de un sólo precio”

Ley de un sólo precio: El arbitraje hace que los precios de los bienes sean iguales cuando están expresados en la misma moneda

La idea es que, en el largo plazo, los tipos de cambio igualan los precios entre países

Para que esto ocurra, han de cumplirse tres supuestos:

- No existen barreras al comercio
- No hay costes de transporte
- Competencia perfecta

-La ley de un sólo precio se aplica no sólo a bienes individuales sino también a cestas de bienes. Por lo tanto, la PPP es la generalización de la ley de un sólo precio a cestas de bienes idénticas entre dos países.

Versión Absoluta

$$S = \frac{P}{P^*}$$

Versión Relativa

$$\% \Delta S = \% \Delta P - \% \Delta P^*$$

Versión Generalizada $P_T = S P_{T^*}$

$$P_I = \alpha P_N + (1 - \alpha) P_T \quad P_{I^*} = \beta P_{N^*} + (1 - \beta) P_{T^*}$$

$$\frac{P_I}{P_{I^*}} = \frac{\alpha P_N + (1 - \alpha) P_T}{\beta P_{N^*} + (1 - \beta) P_{T^*}}$$

$$\frac{P_I}{P_{I^*}} = S \times \left[\frac{\alpha(P_N/P_T) + (1 - \alpha)}{\beta(P_{N^*}/P_{T^*}) + (1 - \beta)} \right]$$

$$S = \frac{P_I}{P_{I^*}} \times \left[\frac{\beta(P_{N^*}/P_{T^*}) + (1 - \beta)}{\alpha(P_N/P_T) + (1 - \alpha)} \right]$$

Testando la PPP

1. Big Max Index

Country	Big Mac prices		Implied PPP of the dollar*	Actual \$ exchange rate	Local currency under(-)/over(+) valuation (%)
	in local currency	in dollars			
USA	\$2.90	\$2.90	-	-	-
Argentina (peso)	4.35	1.48	1.50	2.96	-49
Australia (A\$)	3.25	2.27	1.12	1.43	-22
Brazil (real)	5.40	1.70	1.86	3.18	-41
Britain (£)	1.88	3.37	1.54**	1.79	+16
Canada (C\$)	3.20	2.33	1.10	1.37	-20
Chile (peso)	1400	2.18	483	642	-25
China (yuan)	10.40	1.26	3.59	8.25	-56
Czech Re (CKr)	56.55	2.13	19.50	26.55	-27
Denmark (DKr)	27.75	4.46	9.57	6.22	+54
Egypt	10.00	1.62	3.45	6.17	-44
Euro Area (€)	2.74	3.28	1.06***	1.20	+13
HongKong (HK\$)	12.00	1.54	4.14	7.79	-47
Hungary (forint)	531	2.52	183	210	-13
Indonesia (rupiah)	16,100	1.77	5,552	9,096	-39
Japan (yen)	262	2.33	90.3	112.4	-20
Malaysia (M\$)	5.05	1.33	1.74	3.79	-54
Mexico (peso)	24.00	2.08	8.28	11.54	-28
New Zealand (NZ\$)	4.35	2.65	1.50	1.64	-9
Peru	9.00	2.57	3.10	3.50	-11
Philippines	69.00	1.23	23.8	56.1	-58
Poland (zloty)	6.29	1.63	2.17	3.86	-44
Russia (rouble)	42.05	1.45	14.5	29.0	-50
Singapore (S\$)	3.30	1.92	1.14	1.72	-34
South Africa (rand)	12.40	1.86	4.28	6.67	-36
S.Korea (won)	3,200	2.72	1,103	1,176	-6
Sweden (SKr)	29.90	3.94	10.3	7.59	+36
Switzerland (SFr)	6.30	4.90	2.17	1.29	+68
Taiwan (NT\$)	75.10	2.24	25.9	33.5	-23
Thailand (baht)	58.90	1.45	20.3	40.6	-50
Venezuela	4,400	1.48	1,517	2,973	-49

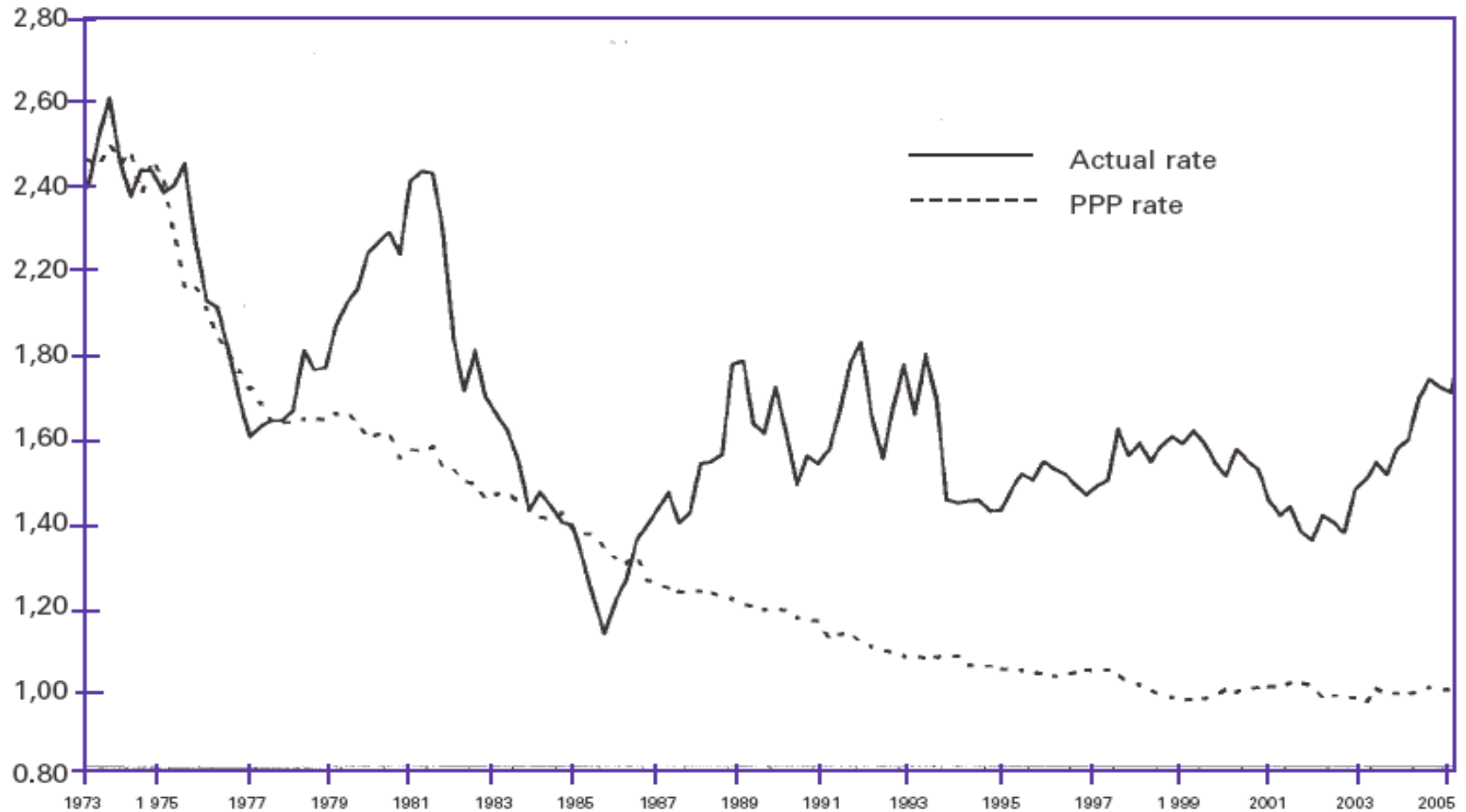
Local currency prices and actual exchange rates are inferred by the author from data presented in *The Economist*. 'Euro Area' is a weighted average price based on the price in the 12 Eurozone countries. * PPP is the local price divided by the price in the United States, ** dollars per pound, *** dollars per euro.

Source: *The Economist*. 27 May 2004.

2. Gráficamente: Comparación del tipo de cambio real y el postulado por la PPP para grupos de países

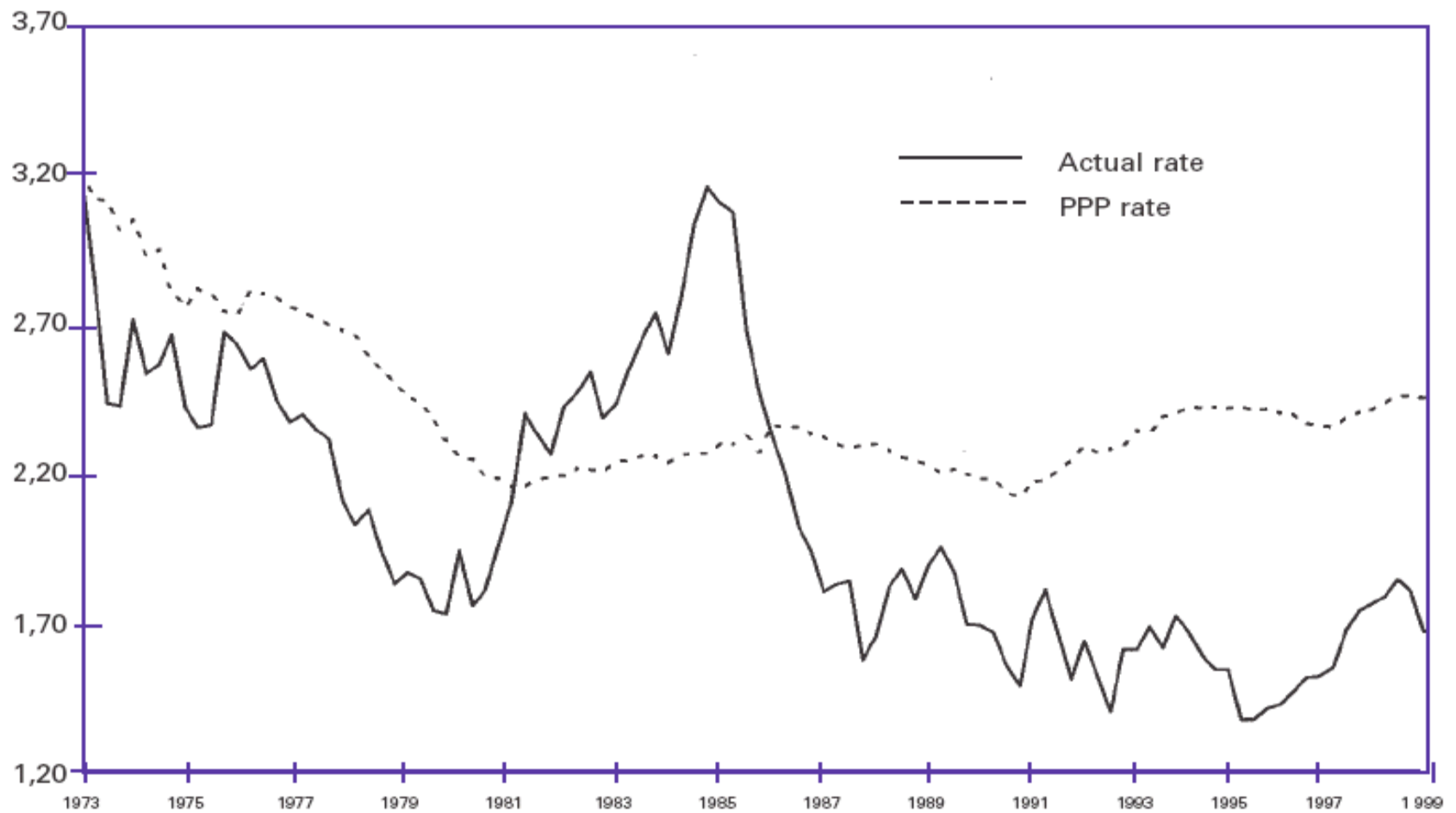
(a) Dollar-pound rate and PPP rate

\$/£ rate



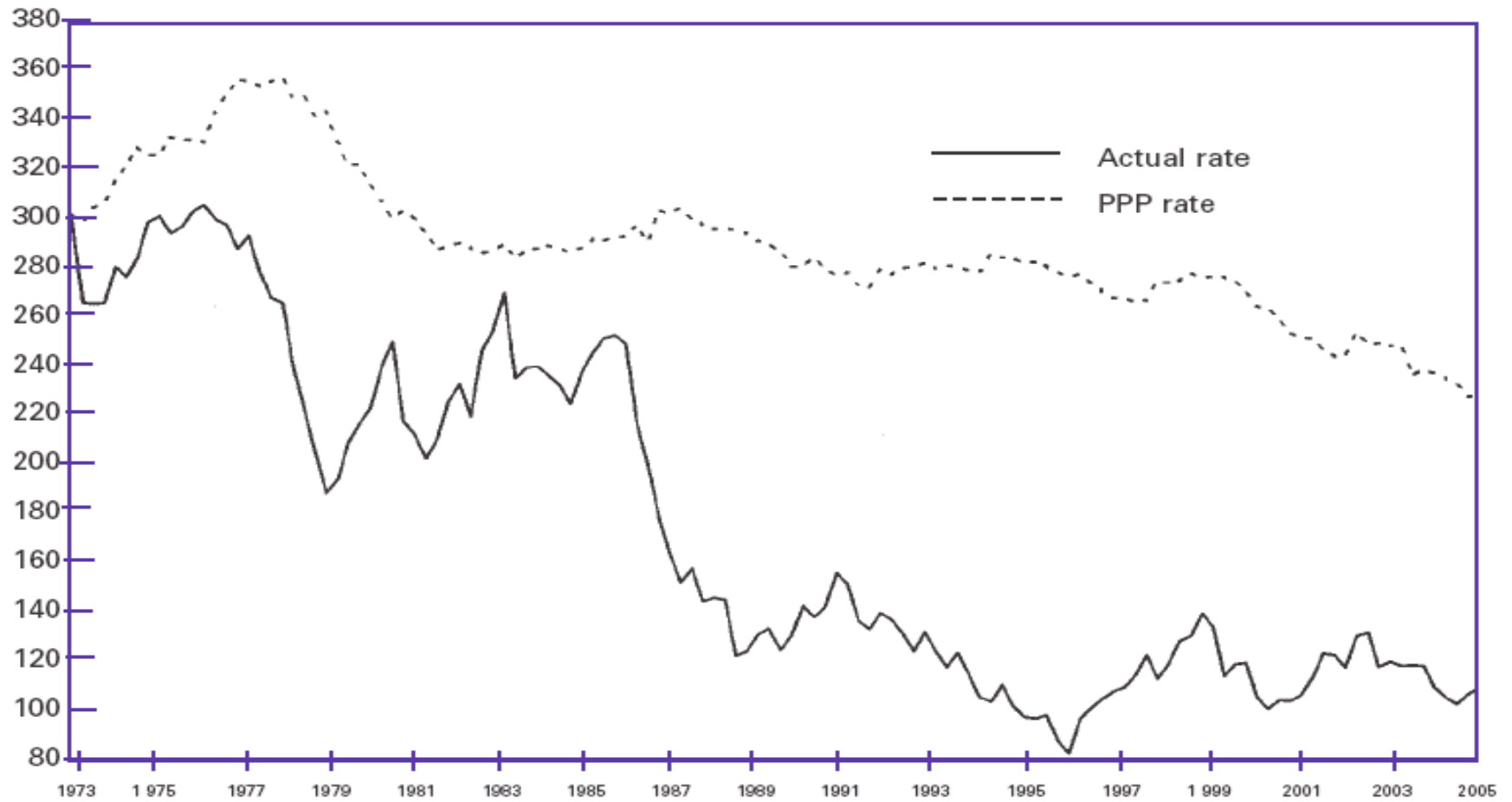
(b) Deutschmark-dollar rate and PPP rate

DM/\$ rate



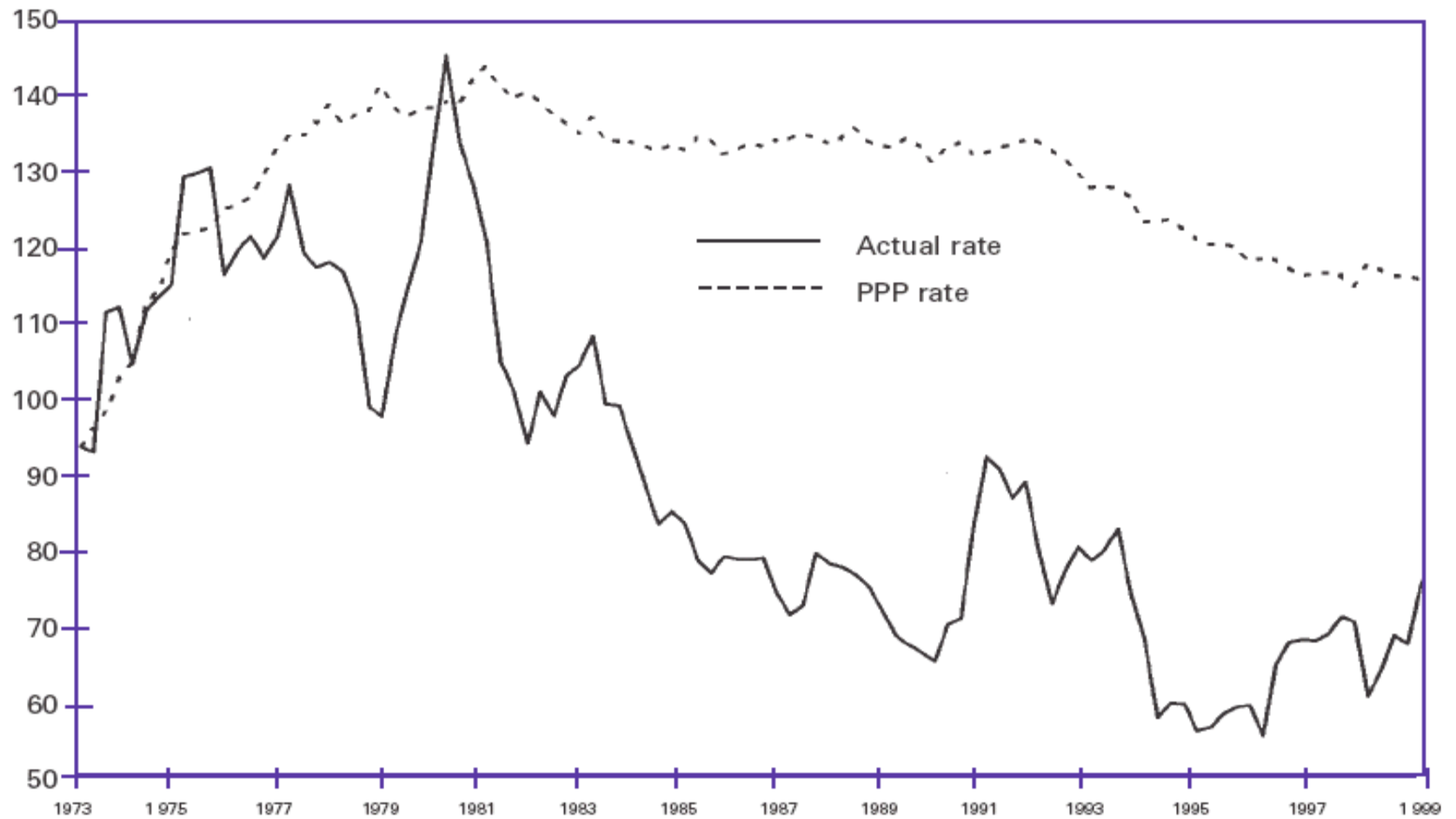
(c) Yen-dollar rate and PPP rate

Yen/\$ rate



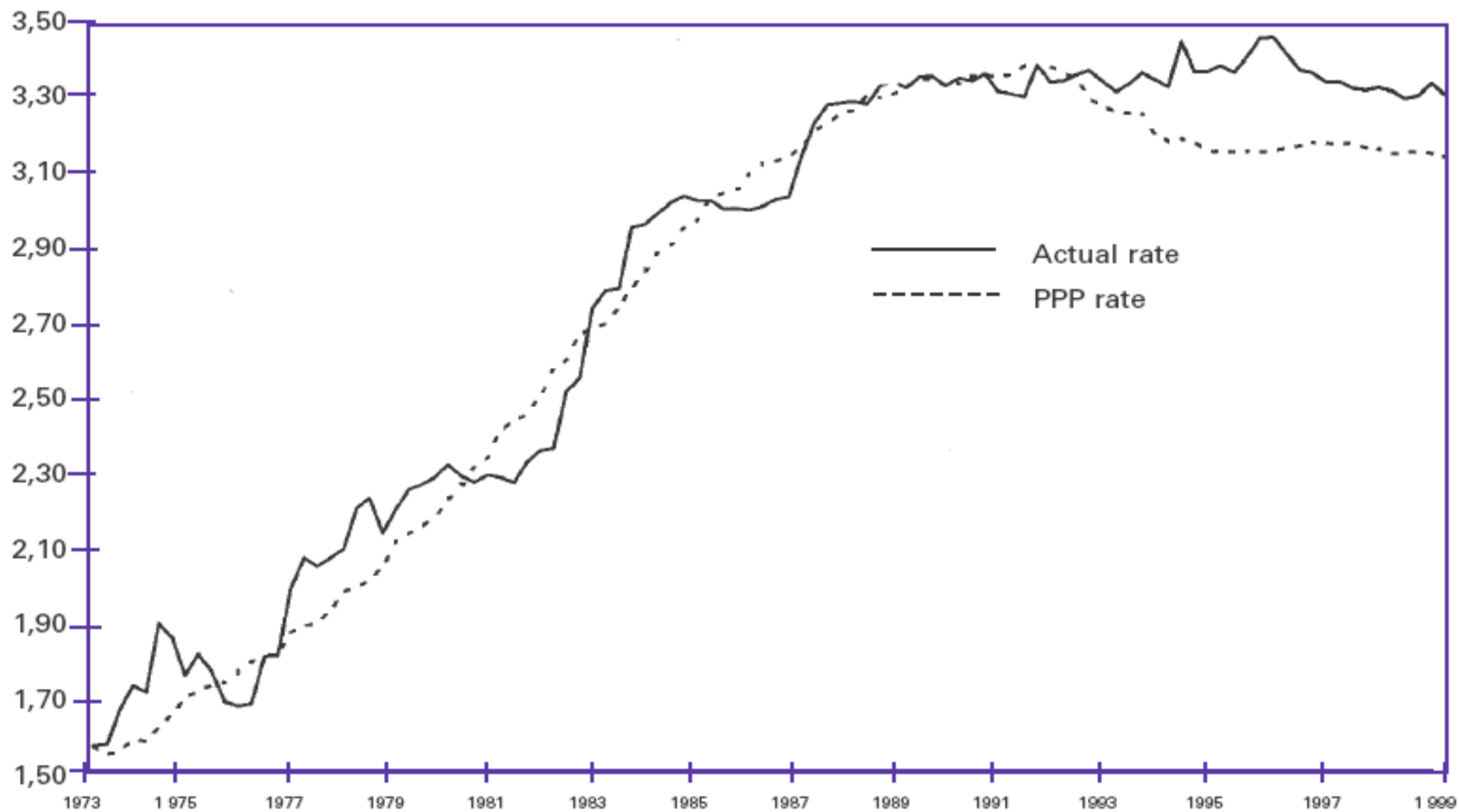
(d) Yen-deutschmark rate and PPP rate

Yen/DM rate



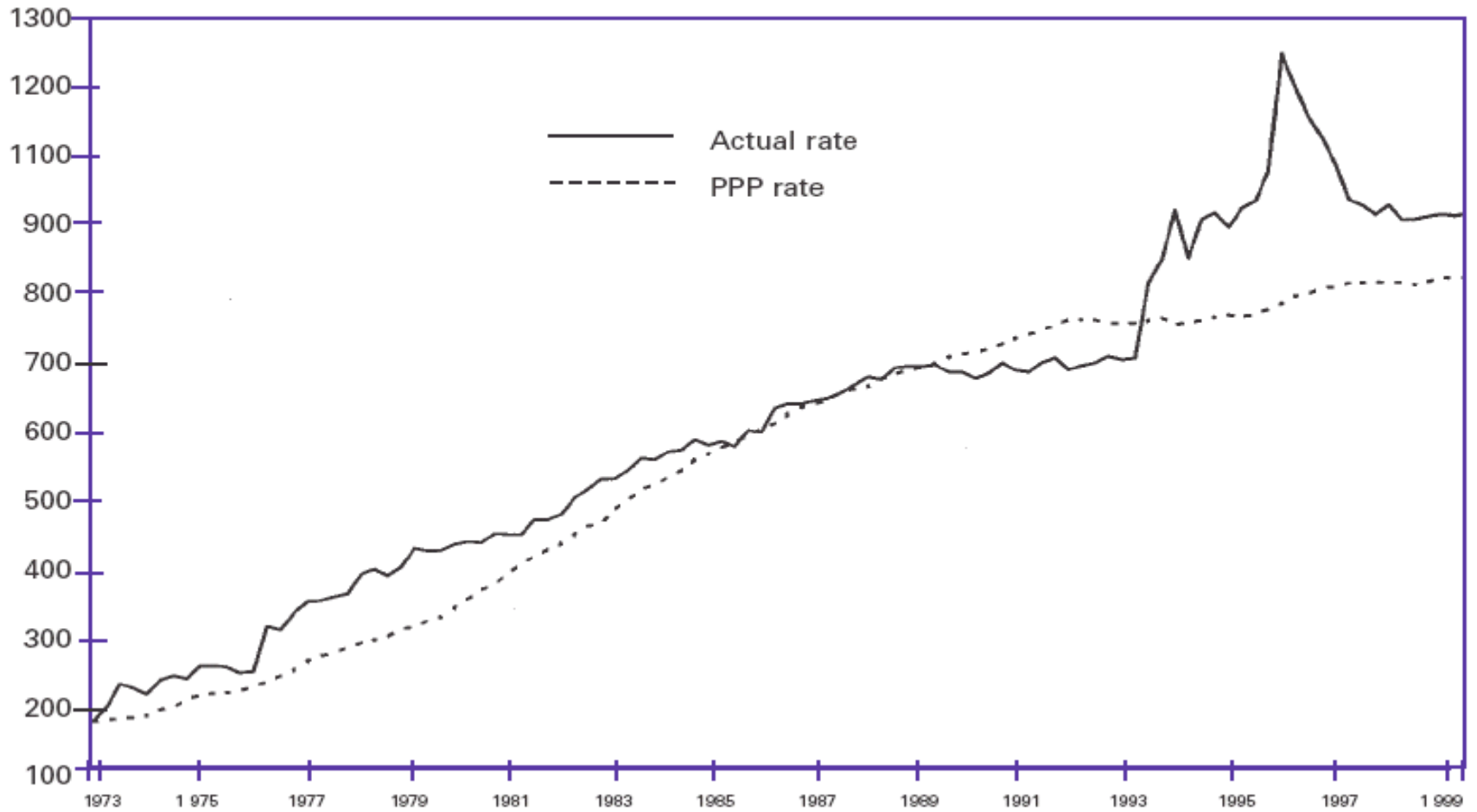
(e) French franc–deutschmark rate and PPP rate

FF/DM rate



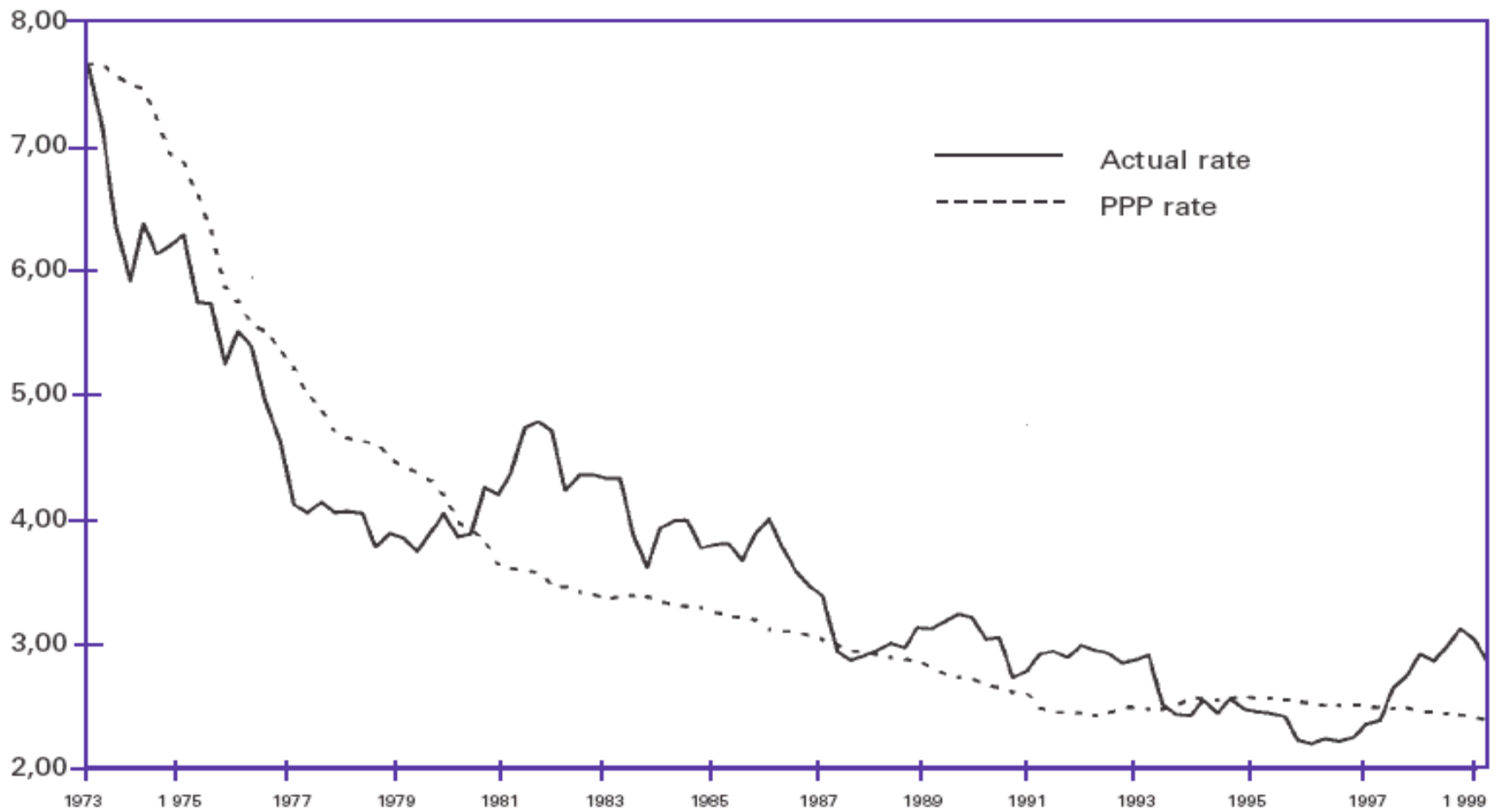
(f) Lira-deutschmark and PPP rate

Lira/DM rate



(g) Deutschmark–pound rate and PPP rate

DM/£ rate



3. Enfoque econométrico

¿Cómo testar la PPP relativa?

Rate	Relative PPP Period	$\Delta \ln S_t = a_1 + a_2(\Delta \ln P_{t^*} - \Delta \ln P_t) + u_t$		SE	DW
		a_1	a_2		
Pound/dollar	73Q1–81Q4	0.01 (0.56)	-0.17 (-0.46)	0.050	1.83
	81Q4–90Q3	0.00 (0.03)	-0.21 (-0.26)	0.059	1.85
	73Q1–90Q3	0.00 (0.41)	-0.01 (-0.04)	0.054	1.87
Deutschmark/dollar	73Q1–81Q4	0.00 (-0.25)	0.53 (0.89)	0.069	1.79
	81Q4–90Q3	-0.01 (-0.76)	0.48 (0.59)	0.062	1.96
	73Q1–90Q3	-0.01 (-0.80)	0.46 (1.00)	0.064	1.88
Yen/dollar	73Q1–81Q4	0.00 (-0.43)	0.82 (1.82)	0.051	1.94
	81Q4–90Q3	0.01 (0.93)	2.79 (3.67)	0.063	2.01
	73Q1–90Q3	0.00 (-0.26)	1.22* (3.15)	0.058	1.95
Lira/dollar	73Q1–81Q4	0.01 (0.74)	0.68* (2.25)	0.053	1.99
	81Q4–90Q3	-0.01 (-0.70)	0.78* (1.07)	0.055	1.90
	73Q1–90Q3	0.00 (-0.05)	0.73* (2.36)	0.055	1.98
French franc/deutschmark	73Q1–81Q4	0.00 (0.21)	0.77* (1.29)	0.034	1.89
	81Q4–90Q3	0.00 (0.59)	0.76* (1.35)	0.021	1.91
	73Q1–90Q3	0.00 (0.53)	0.71* (1.90)	0.027	2.00
Lira/deutschmark	73Q1–81Q4	0.01 (1.32)	0.51* (1.64)	0.054	1.80
	81Q4–90Q3	0.00 (0.56)	0.55* (2.39)	0.017	1.88
	73Q1–90Q3	0.00 (0.87)	0.68* (3.51)	0.040	1.79
Pound/deutschmark	73Q1–81Q4	0.01 (0.91)	0.16 (0.39)	0.057	1.95
	81Q4–90Q3	-0.01 (-0.71)	1.32* (2.63)	0.045	1.97
	73Q1–90Q3	0.01 (0.83)	0.40 (1.32)	0.051	1.96
Yen/deutschmark	73Q1–81Q4	0.00 (-0.25)	0.90* (1.84)	0.061	1.99
	81Q4–90Q3	0.00 (0.10)	1.18* (2.81)	0.039	1.97
	73Q1–90Q3	0.00 (-0.15)	0.93* (2.78)	0.050	1.99

Notes: Hypothesis is $a_2 = 1$. An asterisk by a variable indicates that it is both of the correct sign and statistically equal to its hypothesized value. The t -statistics are in parentheses.

Source: Author's own estimates.

El modelo de Balassa-Samuelson

$$P_N = W_N/Q_N \quad \text{and} \quad P_T = W_T/Q_T$$

$$P_{N^*} = W_{N^*}/Q_{N^*} \quad P_{T^*} = W_{T^*}/Q_{T^*}$$

$$W_N = W_T \quad \text{and} \quad W_{N^*} = W_{T^*}$$

$$Q_{T^*} > Q_T \quad \text{and} \quad Q_{N^*} = Q_N$$

$$S = P_T/P_{T^*}$$

$$\frac{P_N}{P_T} = \pi$$

$$\frac{P_{N^*}}{P_{T^*}} = \pi^*$$

$$\pi^* > \pi$$

$$\frac{SP_{N^*}}{SP_{T^*}} = \pi^*$$

$$SP_{N^*} > P_N$$