

# On the Cyclical Behavior of the Current Account: Evidence from Developed Countries

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## Abstract

This brief study examines the cyclical behavior of the current account in developed countries from the 1950s to 1990. The current account is found to be procyclical in most cases. This finding is inconsistent with neo-Keynesian models.

**JEL classification:** E32, F21, F32

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An important problem in macroeconomics is whether the current account is procyclical or countercyclical. The neo-Keynesian macroeconomics clearly predicts a countercyclical pattern of the current account: exports are independent of domestic output, while imports depend positively on domestic output. On the other hand, the real business cycle (RBC) theory is ambiguous regarding the cyclical behavior of the current account (for more details concerning RBC models, see Barro, 1997). For example, a positive supply shock positively affects desired saving (this effect is strong if the shock is temporary) and investment demand. If the effect on investment demand prevails over the effect on saving, the current account is countercyclical; in the opposite case it is procyclical.

The present brief study examines the postwar data from developed countries (including Cyprus, Greece, and Malta) up to 1990. The data for real output per capita are taken from the Summers-Heston data set (see Summers and Heston, 1991, and the web site <http://pwt.econ.upenn.edu/>, RGDPCH variable). The current-account data (in U.S. dollars) are taken from the International Monetary Fund. (For earlier years, the current account is

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constructed from the data on the trade balance, the net factor income from abroad, and transfer payments.) The ratios of the current account to GDP (the current-account ratios) are computed from GDP estimates in the International Monetary Fund (in national currencies); the current-account data are converted to national currencies using the average annual exchange rates presented in the International Monetary Fund.

The current-account ratios should be consistently compared to the growth rates of real output per capita. An important point is that the growth rate of output between two subsequent years reflects the average growth performance in both the years. To be consistent, the growth rate of output per capita in the year  $T$  (i.e., between  $T-1$  and  $T$ ) should be compared to the average current-account ratio in  $T-1$  and  $T$ . For each year  $T$ , I constructed the arithmetic average of the current-account ratios in  $T-1$  and  $T$  and matched this average to the output growth rate in  $T$ .

Table 1 presents the most important statistics which shed light on the cyclical behavior of the current account. The correlation coefficient between the current-account ratio and the growth rate of real output per capita is positive in most cases. The average correlation coefficient is 0.25 (with the standard deviation of 0.24). This is strongly significantly positive (the  $t$ -statistic is 5.17). This is a clear symptom of the average procyclical character of the current account. Table 1 also examines the average current-account ratios in recessions (years with negative growth rates of real output per capita) and booms (defined differently for different countries based on the average output performance for a given country). Table 1 presents differences of the average current-account ratios in recessions (as well as booms) from the long-run averages. The last column of Table 1 presents the cyclical behavior of the current account based on the average behavior in recessions and booms. Again, the current account is typically procyclical.

To summarize, this study finds evidence for a procyclical pattern of the current account in the sample of developed countries. While inconsistent with neo-Keynesian models, this evidence can be consistent with RBC models if the effects of supply shocks on saving prevail over the effects on investment demand.

## REFERENCES

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International Monetary Fund, *International Financial Statistics*, Washington, DC, various issues.

Summers, Robert, Heston, Alan. 1991. The Penn World Table (Mark 5): An Expanded Set of International Comparisons, 1950-1988, *Quarterly Journal of Economics*, 106, 2, 327-368.

Table 1: Variables describing the cyclical pattern of the current account.

Country	Period	r	$\Delta CA_R$	DEF BOOM	$\Delta CA_B$	Cyclical behavior
Australia	1954-1990	0.35	-0.41	4	0.49	w-pc
Austria	1957-1990	0.25	-2.87	5	0.79	pc
Belgium	1957-1990	0.22	-0.93	5	0.90	pc
Canada	1953-1990	0.33	-1.60	4	0.56	pc
Cyprus	1958-1990	0.20	-1.04	6	0.60	pc
Denmark	1957-1990	0.38	-1.35	5	1.06	pc
Finland	1957-1990	0.38	-2.19	5	0.58	pc
France	1968-1990	0.20	-0.65	4	-0.10	w-pc
Germany	1957-1990	0.16	-0.60	5	-0.18	ac
Greece	1957-1990	0.29	-0.77	7	0.43	pc
Iceland	1957-1990	0.57	-1.27	6	1.99	pc
Ireland	1953-1990	0.35	0.68	6	1.45	w-pc
Italy	1953-1990	0.48	-2.54	6	1.54	s-pc
Japan	1957-1990	-0.21	0.06	8	-0.81	w-cc
Malta	1960-1989	0.02	-0.89	8	0.24	pc
Netherlands	1954-1990	0.12	-0.22	5	-0.23	ac
New Zealand	1956-1990	0.46	-1.40	4	0.82	pc
Norway	1957-1990	-0.07	-0.11	5	0.17	ac
Portugal	1973-1990	0.60	-1.99	5	3.02	s-pc
Spain	1957-1990	0.48	-0.57	6	1.08	pc
Sweden	1968-1990	0.59	-1.34	3	0.98	pc
Switzerland	1957-1990	-0.15	1.18	4	-0.75	cc
United Kingdom	1953-1990	0.05	-0.60	4	-0.36	ac
United States	1954-1990	-0.10	0.42	4	0.45	ac

Notes: r is the correlation coefficient between the current-account ratio and the growth rate of output per capita.  $\Delta CA_R$  and  $\Delta CA_B$  (in %), respectively, are the differences of the average

current-account ratio in recessions and booms, respectively, from the long-run average current-account ratio for a given country. DEF BOOM (in %) is the threshold for a growth rate of output per capita to be considered a boom. The last column presents the cyclical behavior (derived from  $\Delta CA_R$  and  $\Delta CA_B$ ).

ac acyclical

cc countercyclical

pc procyclical

s strongly

w weakly