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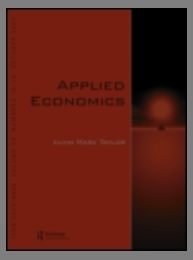

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The J-Curve: a literature review

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Mohsen Bahmani-Oskooee * & Artatrana Ratha

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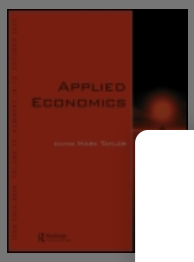

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Abstra

Due to la ce first and improve -Curve phenomenon. Since its introduction by Magee in 1973 (Brooking Papers on Economic

Activity, 1, pp. 303–25), a large number of studies have attempted to test the phenomenon using different techniques and different model specifications. The results are at best ambiguous and deserve to be collected together for the future generation of researchers and graduate students. This paper fills such a vacuum in the literature by reviewing the J-Curve related empirical papers.

Acknowledgements

We are grateful for valuable comments of an anonymous referee. However, we alone are responsible for any error.

Notes

According to the absorption approach, devaluation, through its impact on the terms of trade and domestic production, leads to a switch in spending from foreign to domestic goods, and hence, an improvement in the trade balance. Monetarists, in contrast, argue that devaluation reduces the real value of cash balances and/or changes the relative price of t as well as the bala

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Intertem t account effects c en and Deve d substit rice changes etries and interpret .

Froot an tes to import prices w stress that the retu t share is

sensitive to the excepted future exchange rate, and therefore, determines the aggressiveness of their ‘pricing-to market’ behaviour.

Gerlach (1989) investigates the implications of varying degrees of nominal price flexibilities (or rigidities) for the post-devaluation time-path of trade balance. He makes a distinction between higher prices (relative price effect) and rising prices (inter-temporal price effect). While the currently higher domestic currency prices of tradables tend to discourage imports and therefore improves the trade balance, rising domestic prices of tradables encourages agents to prepone their purchases, which tends to worsen the trade balance. If the latter effect dominates, the J-curve results.

Bacchetta and Gerlach (1994) show that a rapid pass-through of exchange rate changes to import prices is not necessary for J-Curves to arise. If import prices are sticky, consumers anticipate future import prices to rise after a devaluation and therefore reallocate their purchases over time. Thus, J-curves can also arise if imported goods are durable and import prices adjust slowly to exchange rate changes and quantities are adjusting freely.

Indeed, using quarterly data from 1973–1985, Bahmani-Oskooee (1989b) finds evidence of a W-Curve for the US current account. Subsequent to depreciation of the dollar, the current account deteriorates for two quarters and then starts improving for five qua

For the p hares are related t ticity of exports, sly attained market s iven size of export m

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For theo Krugman (1989).

Sundara proves the balance 1984–1985.

If the French trade balance improves and the UK trade balance deteriorates by the same amount following a French and British devaluation, then the French devaluation should be judged successful and the UK unsuccessful.

His sample includes Costa Rica, Ecuador, Finland, France, Iceland, Israel, Philippines, Spain, Sri Lanka and UK. The data are comparable to the data used by Miles.

Karadeloglou (1990) finds evidence of an inverse J-Curve for Greek balance of payments.

Their structural equations include demand for and supply of petroleum and non-petroleum exports and imports, changes in reserves, demand for and supply of money (real balances), and output.

Of the 41 countries, they could apply the cointegration technique to only 20 countries for which both the variables were found to be I (1).

The assumptions are: (i) import prices rise immediately, (ii) export prices remain stable, (iii) import volumes begin to decline after some lags, and (iv) export volumes begin to increase, again, after some lags.

The USA may be a special case: trade in primary products and capital assets is typically denomin (or at least weakens t profit margins tracting practice e US case.

Husted (asures of US exports current account ent struc ng run tende

For exan the USA.

Togethe agricultural exports

While Ar idening the Australian current account deficit, they also emphasized the importance of long-run

import and demand elasticities, competitiveness of Australian tradables, changes in terms of trade, and domestic spending.

See Stern (1973) for the effects of devaluation on the terms of trade and the elasticities conditions.

The J-Curve emerges after a passage of two quarters.

This ratio is unit-free and measures the trade balance in real and nominal terms.

A current account deficit reflects a shortfall between domestic savings and investment. For Australia, Alesina et al. (1991) argue that the link between fiscal consolidation and a smaller current account deficit was severed by a surge in private sector investment – a substantial real depreciation of the Australian dollar would facilitate allocation of this investment between the traded and non-traded sector such as to stabilize the current account. Using vector error correction modelling (VECM) on US data covering the period 1960Q1 to 1994Q4, Dibooglu (1997) demonstrate that macroeconomic variables account for the variation in the current account reasonably well, and the budget surplus, terms of trade, and real interest rates seem to explain a sizable proportion of the variation in current account. Dibooglu's results differ from those of Boucher (1991) for the USA (1974Q1–1988Q2), and Fry (1991) for Korea (1961–1989).

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See Shie nctions.

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Consistent with the requirements of a VAR model, they use stationary data.

Koray (1990) analyses the co-movements of the exchange rate and the trade balance within a static two-country equilibrium model of the world economy. He shows that the trade balance may improve or deteriorate in response to a depreciating exchange rate, depending on the relative importance of disturbances caused by domestic and foreign monetary and fiscal policies. The correlation between the exchange rate and the trade balance is determinate once the source of disturbance is specified – some disturbances lead to a negative correlation whereas others cause a positive correlation between the exchange rate and the trade balance. However, he does not investigate the dynamic response of the exchange rate and the trade balance in response to these disturbances.

The sample consists Austria (1964Q1–1990Q1), Canada (1955Q1–1990Q1), Finland (1975Q1–1990Q1), France (1970Q1–1990Q1), Germany (1968Q1–1990Q1), Italy (1970Q1–1990Q1), Japan (1955Q1–1990Q1), Switzerland (1970Q1–1990Q1), United Kingdom (1955Q1–1990Q1) and the United States (1950Q1–1990Q1).

Named after three authors (Harberger, Laursen and Metzler) who derived this negative correlation in a Keynesian framework.

He includes Brazil, Central African Rep., Chile, Cote d’ Ivoire, Cameroon, Congo, Costa Rica, Ecuador, Gabon, Ghana, Greece, Guatemala, Guyana, Hong Kong, Indonesia, Israel, K Philippines, Papua N d and Tobago,

See also

Note tha m model, the variable

The in all the regressi luding only the curr s, and current MA(4) process.

Applying n the German y, and insignificant lags for the other four US trading partners. When aggregate data is used,

the choice of estimation technique significantly affects the results: OLS estimates provide weak support for J-Curve; IV estimation confirms the negative findings from bilateral data. Of course, when the regressions are run with data in levels rather than first differences, evidence of significant effects of exchange rates on trade is found in the German, Italian, British and Japanese equations. However, this practice is inappropriate as it yields ‘spurious results’ in the Granger-Newbold sense.

Rosenweig and Koch (1988) check for some of these using aggregate US data, and advocate the concept of the delayed J-Curve.

Except for Italy, all the G-7 countries are included.

They construct instruments for current GNP and unlagged export price; the lag structure is chosen according to both Akaike and Schwartz Information Criteria.

The average adjustment period

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The S-Curve describes the lead and lag correlation between terms of trade and net exports.

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