

Applied Economics >

Volume 36, 2004 - Issue 13

3,660 238

Views | CrossRef citations to date | Altmetric

6

Original Articles

The J-Curve: a literature review

Mohsen Bahmani-Oskooee * & Artatrana Ratha

Pages 1377-1398 | Published online: 02 Feb 2007

🗨️ Cite this article <https://doi.org/10.1080/0003684042000201794>

Sample our
Economics, Finance,
Business & Industry Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

📄 Full Article

📊 Figures & data

📖 References

🗨️ Citations

📊 Metrics

📄 Reprints & Permissions

Read this article

🔗 Share

Abstract

Due to la
improve
phenom
Activity,
phenom
are at be
rese
review

We Care About Your Privacy

We and our 878 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting I Accept enables tracking technologies to support the purposes shown under we and our partners process data to provide. Selecting Reject All or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the Show Purposes link on the bottom of the webpage. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

Use precise geolocation data. Actively scan device

I Accept

Reject All

Show Purpose

ce first and
Curve
Economic
ne
The results
eneration of
erature by

Acknow

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 traded and non-traded goods, and thus improves the trade balance as well as the balance of payments.

For recent estimate of the ML condition see Rose ([1990](#)) and Bahmani-Oskooee and Niroomand ([1998](#)).

Intertemporal models imply that there are asymmetries between the current account effects of temporary changes in export and import prices. For example, Chen and Devereux ([1994](#)) show that for temporary import price changes, income and substitution effects work in opposite directions while for temporary export price changes, they reinforce. However, many authors often ignore these asymmetries and interpret

Froot and... stresses to import
prices w... stress that
the retur... t share is
sensitive... he
aggressi...

Gerla... price
flexib... e. He makes
a distinc... inter-
tempora... of tradables
tend to c... y domestic
prices of... nds to
worsen t...



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 quarters, again deteriorates, and finally improves.

For the price-elasticity of market shares, proportionate changes in market shares are related to proportionate changes in relative export prices; for the price-elasticity of exports, proportionate deviations of exports from a standard set by previously attained market shares are related to proportionate changes in export prices (for a given size of export markets).

Calculations made in volume terms generally confirm those in value terms: Almost 50% of the full effect appears to be realized within the first three years, and about 90% during the first five years.

For the
([1989](#)).

Sundara
balance

If the Fre
same an
shou

His sam
Spain, S

Karadel
paymen

Their str

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 denominated in major vehicle currencies, such as the US dollar. This delays (or at least weakens) the underlying pass-through. Moreover, foreign exporters may cut profit margins to maintain their market shares in the USA. Also, invoicing and contracting practices themselves may delay an initially perverse J-Curve response in the US case.

Husted ([1992](#)) estimates the cointegrating regressions between several measures of US exports and imports and shows that (a) up to about the end of 1983, the US current account tended towards zero; and (b) since 1983, there has been an apparent structural shift in the relationship between the trade flows, resulting in a long run tendency for a deficit in excess of \$100 billion.

For example, Rosensweig and Koch ([1988](#)) advocated a delayed J-Curve for the USA.

Together
exports

While Ar
Australia
import a
terms of

See
conditi

The J-Cu

This rati

A curren
For Aust



agricultural

widening the

long-run

changes in

the elasticities

terms.

investment.

ation 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).

It is assumed that each country faces an infinitely elastic supply of imports.

See Shiells (1985) for details on the estimation of gamma distributed lag functions.

TB_t = exports/imports, M_t = real domestic money supply, MW_t = world money supply in real terms, Y_t = domestic real output, YW_t = world real output, P_t = domestic price level, PW_t = world price level, and E_t = effective exchange rate.

Note that Bahmani-Oskooee ([1985](#)) studies the impact of real effective exchange rates on the real trade balance defined as excess of exports over imports (measured in domestic currency) whereas Himarios ([1985](#)) measures the trade balance in terms of the US dollar and studies the impact of the nominal bilateral exchange rate on the trade balance.

Except for the case of the USA (1974Q1-1988Q2) and

Himarios

Consiste

Koray (1

within

trade

dependi

monetar

balance

lead to a

exchang

respons

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, Kenya, Korea, Sri Lanka, Morocco, Mauritius, Malaysia, Nigeria, Peru, Philippines, Papua New Guinea, Portugal, Senegal, Singapore, Somalia, Thailand, Trinidad and Tobago, Tunisia, South Africa and Zambia.

See also Bahmani-Oskooee and Brooks (1999).

Note that it is only a partial equilibrium analysis. In a full general equilibrium model, the variables REX, Y, and Y^* are all endogenous.

The current and four lags of both foreign and domestic income are included in all the regressions. Four alternatives are considered for the real exchange rate: including only the current rate, the current and four lags of the rate, current plus eight lags, and current plus 12 lags. The current term is modelled as the white noise and the MA(4) process.

Applying the Johansen procedure to the VAR(4) model, the results show that the German real exchange rate is cointegrated with the real exchange rate, and the cointegration rank is 1. When the Johansen procedure is used, the choice of the number of lags is important. The choice of 4 lags provides the best fit. The results show that the real exchange rate is cointegrated with the real exchange rate, and the cointegration rank is 1. When the Johansen procedure is used, the choice of the number of lags is important. The choice of 4 lags provides the best fit.

Rosenweber (1999) finds that the real exchange rate is cointegrated with the real exchange rate, and the cointegration rank is 1. When the Johansen procedure is used, the choice of the number of lags is important. The choice of 4 lags provides the best fit.

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

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

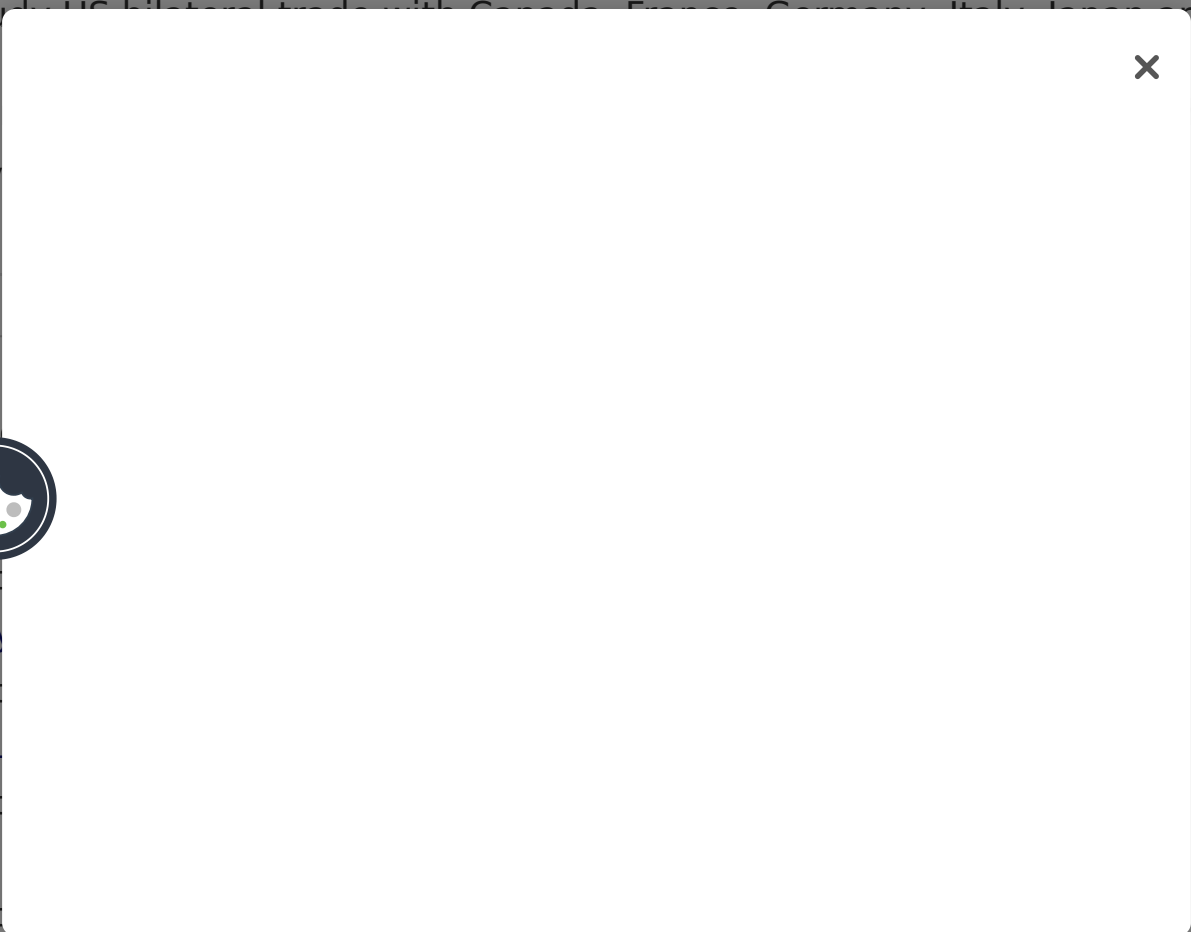
As a robustness check, they also add domestic and foreign money supplies to the right hand side and find no qualitative change in the end results.

Italy is an exception in that the impact of devaluation on the trade balance is significant over the 24 month period but not in the long run (longer than 24 months). Devaluation of the lira may cause domestic prices to rise, and thereby, reverse the long favourable impact of devaluation on the trade balance.

Normally, imports increase as a country's income rises. However, if this rise in income is due to increased production of import-substitutes, then the country would import less, and experience an improvement in the trade balance.

They study US bilateral trade with Canada, France, Germany, Italy, Japan, and the UK.

Carter and others have done other studies that have



Relat



T

Sourc

Sticky

Sourc

The L

Sourc

Deva

Sourc

Determinants of international trade flows: The Case of Developing Countries

Source: Elsevier BV

Empirical tests of the Marshall-Lerner condition: a literature review

Source: Emerald

The South Africa-U.S. Trade and the Real Exchange Rate: Asymmetric Evidence from 25 Industries

Source: Wiley

Intertemporal speculation, devaluation, and the 'J-curve'

Source: Elsevier BV

The Effect of Exchange Rate on Bilateral Trade Balance: New Evidence from Malaysia and Thailand

Source: Wiley

Currency Contracts, Pass-Through, and Devaluation

Source: JSTOR

Long-run price elasticities and the Marshall-Lerner condition revisited

Source: Elsevier BV

Macro-economic determinants of Australia's current account, 1977-1986

Source: Springer Science and Business Media LLC

Estimation of J-curves: United States and Canada

Source: JSTOR

Exchange rates and the trade balance

Source: Elsevier BV

Accounting for US current account deficits: an empirical investigation

Source: Informa UK Limited

Is the

Source

How

North

Source

Deva

Source

W

S

Inves

Source

Do ex

balan

Source

Indus

Source



The J-Curve phenomenon in European transition economies: A nonlinear ARDL approach

Source: Informa UK Limited

Is there a J-curve effect in Tunisia's bilateral trade with her partners? New evidence from asymmetry analysis

Source: Springer Science and Business Media LLC

The effects of devaluation on the trade balance: A critical view and re-examination of Mile's 'new results'

Source: Elsevier BV

THE J CURVE: CHINA VERSUS HER TRADING PARTNERS

Source: Wiley

The effectiveness of devaluation: A general equilibrium assessment with reference to Greece

Source: Elsevier BV

More evidence on the J curve from LDCs

Source: Elsevier BV

Long-Run and Short-Run Behavior of Korea's Current Account

Source: Informa UK Limited

Brexit associated sharp depreciation and implications for UK's inflation and balance of payments

Source: Emerald

The U. S. Current Account: A Long and Short Run Empirical Perspective

Source: JSTOR

Impo

Source

Nonli

Source

Real

Source

Is the

Sp

B

Source

Asses

Source

Flexi

Source

DO D

Source



old?

The Effects of Devaluation on the Trade Balance and the Balance of Payments: Some New Results

Source: University of Chicago Press

Bilateral J-Curve between U.S. and her trading partners

Source: Springer Science and Business Media LLC

Investigating the Relationship between Trade Balance and the Exchange Rate: The Case of Laos' Trade with Thailand:

Source: SAGE Publications

The J-Curve Effect and the U.S. Agricultural Trade Balance

Source: Wiley

Exchange Rates and the Trade Balance for Dynamic Asian Economies—Does the J-Curve Exist for Singapore, Malaysia, and Korea?

Source: Springer Science and Business Media LLC

Trade Balance Dynamics and Exchange Rates: In Search of the J-Curve Using a Structural Gravity Approach

Source: Wiley

The commodity composition of US-Japanese trade and the yen/dollar real exchange rate

Source: Elsevier BV

Nonlinear ARDL Approach and the J-Curve Phenomenon

Source: Springer Science and Business Media LLC

The J- and S-curves: a survey of the recent literature

Source: Emerald

An in

imba

Source

Bilate

Source

The P

Source

Dy

S

The J

system

Source

THE P

Source

The e

inves

Source: Elsevier BV




Review

A disaggregated approach to test the J-Curve phenomenon: Japan versus her major trading partners

Source: Springer Science and Business Media LLC

A nonlinear approach to the U.S.-Australia commodity trade and the J-curve: Evidence from 123 industries

Source: Wiley

Linking provided by  ScholarSplorer

Related research

People also read

Recommended articles

Cited by
238



Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Keep up to date

Register to receive personalised research and resources by email

 Sign me up



Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Copyright

Accessib

Registered
5 Howick Pl

or & Francis Group
orma business

