

INTERNATIONAL TRADE

Edited by
Bharat Hazari and Yin-Wong Cheung

CRITICAL CONCEPTS IN
ECONOMICS



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Volume III

 **Routledge**
Taylor & Francis Group
LONDON AND NEW YORK

First published 2015
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN
and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

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British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library.

Library of Congress Cataloging in Publication Data

International trade : critical concepts in economics / edited by Bharat Hazari and Yin-Wong Cheung.

volumes cm

Includes bibliographical references and index.

ISBN 978-0-415-83024-9 (set : alk. paper) – ISBN 978-0-415-83025-6 (v. 1 : alk. paper) –
ISBN 978-0-415-83026-3 (v. 2 : alk. paper) – ISBN 978-0-415-83027-0 (v. 3 : alk. paper) –
ISBN 978-0-415-83028-7 (v. 4 : alk. paper) 1. International trade. I. Hazari, Bharat R.
II. Cheung, Yin-Wong.

HF1379.I5826 2015

382–dc23

2014043193

ISBN: 978-0-415-83024-9 (Set)

ISBN: 978-0-415-83027-0 (Volume III)

Typeset in 10/12pt Times NR MT
by Graphicraft Limited, Hong Kong

Publisher's Note

References within each chapter are as they appear in the original complete work.



Printed and bound in Great Britain by
TJ International Ltd, Padstow, Cornwall

INTERNATIONAL TRADE

ACKNOWLEDGEMENTS

The publishers would like to thank the following for permission to reprint their material:

John Wiley & Sons for permission to reprint Gottfried Haberler, 'Some Problems in the Pure Theory of International Trade', *Economic Journal*, 1950, 60, 223-240.

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ACKNOWLEDGEMENTS

Jagdish N. Bhagwati for permission to reprint Jagdish N. Bhagwati, 'The Generalized Theory of Distortions and Welfare', in Jagdish N. Bhagwati, Ronald W. Jones, Robert A. Mundell and Jaroslav Vanek (eds), *Trade, Balance of Payments and Growth: Papers in International Economics in Honor of Charles P. Kindleberger* (Amsterdam: North-Holland, 1971), 1-32.

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ACKNOWLEDGEMENTS

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Taylor & Francis for permission to reprint Chi-Chur Chao, Bharat R. Hazari and Jean-Pierre Laffargue, 'Congestion and Optimal Immigration Policy', *Review of Development Economics*, 2013, 17, 1, 88–104.

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Part 6

TRADE AND DISTORTIONS

NOTE ON THE PURE THEORY OF CAPITAL TRANSFER

Wassily Leontief

Source: H. S. Ellis and L. A. Metzler (eds), *Explorations in Economics: Notes and Essays Contributed in Honour of F. W. Taussig* (Philadelphia: Blakiston, 1949), 84–91.

I

The object of this note is the reconsideration of a few theoretical questions, which until recently were the subject of a lively discussion between the proponents of the older—"classical"—and the modern—"purchasing power"—theory of international capital movements. In particular it is an attempt to define somewhat more rigorously than has hitherto been done the relation between such concepts as "transfer of purchasing power," "demand adjustments," etc., and to indicate the interrelation between these factors within the mechanism of international trade adjustments.

Limiting the scope of inquiry to these few questions, we obviously have to disregard all the complications, which obscure the basic outlines of the actual economic process. The simplest way of debarring those aspects of the problem, which are inessential from the point of view of our discussion, is not to apply our argument to an empirically given situation, but to formulate it on the basis of an artificial scheme, which by its very nature would exclude all irrelevant complications.

The simplest possible setup of this kind is that of two communities (or regions, or nations) trading with each other within the boundaries of the same monetary system. Each region may be assumed to produce two kinds of commodities, say wheat and meat. These are distributed through the medium of two separate markets (the wheat and the meat market) among the members of both communities. All transactions are conducted on a cash basis and the total quantity of circulating medium is rigidly fixed. No other commodities but wheat and meat are negotiable between the members either of the same community or of the two different communities.

The members of community *B* supply the wheat market with a larger physical amount of this commodity than they buy on it, the surplus being taken by community *A*. Let the positive difference between these two quantities be called the export from *B* to *A*. At the same time community *B* uses larger amounts of meat than it sells on the meat market. The negative difference, obviously produced in the other community, represents the import from *A* to *B*.

The total value (price times quantity) of the sales made by the members of each of the two communities is, under the given circumstances, exactly equal to the value of the total purchases, and at the same time the total value of the imports from *A* to *B* is necessarily equal to the total value of exports from *B* to *A*.

Into this simple static system, we introduce now an independent change *i.e.*, one that is not conditioned by the previous situation. This change consists in taking without compensation from the members of one of the two communities, say *A*, a part of their monetary earnings (this term will be used to indicate the proceeds from the sale of the commodities produced by the receiver of "earnings") and distributing the amount of money so obtained among the citizens of the other group (*B*). How will this transfer affect the amounts and prices of commodities produced and consumed by the individuals belonging to the two trading groups?

To follow one after another the successive stages of adjustments subsequent to the primary change would be very difficult even under the highly simplified assumptions of our abstract scheme. Instead we shall apply the method of comparative statics, *i.e.*, we shall visualize another equilibrium situation in which the members of community *A* are systematically taxed in the manner described, community *B* being simultaneously subsidized by the same amount; then we shall compare this new situation with the initial setup.¹

For each individual there exists a definite relation between (1) the size of his spendable monetary resources, (2) the quantity of purchased commodities, and (3) their prices. The equilibrium values of all the three types of variables are simultaneously determined in the market process.

From the point of view of our discussion the trade ties connecting the two communities are of particular importance. In order to isolate this aspect of the problem in its simplest form and to eliminate unessential intra-regional variations we shall assume that the members of each of the two communities have identical tastes, and that consequently the same income-price-quantity relation holds for all of them. If in addition they are endowed with absolutely equal amounts of original productive resources, the whole analysis can be reduced to the discussion of the relation between two "representative" individuals, one belonging to community *A* and the other to community *B*.

Similar considerations make it necessary to assume that the original transfer of money, the effects of which we wish to investigate, is performed in such a way that each member of community *A* is deprived of an equal

amount of his current earnings, while the distribution of the collected money among the members of community *B* is also absolutely uniform.²

The strictly equalitarian assumptions will enable us to consider also the welfare aspect of the problem, which under any other setup would acquire a more or less "metaphysical" character.

II

The following numerical example is constructed in such a way as to reveal in the most obvious manner all the different aspects of the transfer problem. Its examination will demonstrate in particular the fallacies of some of the current theoretical opinions on this subject.

Despite its extreme simplification the number of variables involved in the discussion of our theoretical picture is so great that the tabular form of presentation is practically the only one possible.

The initial equilibrium state is described on Tables 1*a* and 1*b*. Community *A* produces thirteen units of meat and eight of wheat. The price of both products is \$2 per unit, so that the total receipts of community *A* are \$42. Community *B* produces five units of meat and ten units of wheat and its total receipts amount to \$30. From Table 1*b* we see that each of the two regions spends exactly as much as it earns. The meat consumption of community *B* exceeds the domestic production of this commodity by five units, its wheat output is on the other hand five units larger than the domestic purchases. An exactly opposite relation prevails in community *A*. The surpluses are exchanged against each other. The exports and imports of each

Table 1 Position I: without capital transfer.

a. Production (receipts)

		Price \$		Community A		Community B		Total A and B	
				Quantity	Value \$	Quantity	Value \$	Quantity	Value \$
Meat	2	13	26	5	10	18	36		
Wheat	2	8	16	10	20	18	36		
Total	..	..	42	..	30	..	72		

b. Consumption (expenditures)

		Price \$		Community A		Community B		Total A and B	
				Quantity	Value \$	Quantity	Value \$	Quantity	Value \$
Meat	2	8	16	10	20	18	36		
Wheat	2	13	26	5	10	18	36		
Total	..	..	42	..	30	..	72		

community are equal in value (\$10), *i.e.*, their trade relations are perfectly balanced.

Tables 2a and 2b show the new equilibrium situation which results from the transfer of \$3 from community A to B. Neither the productive opportunities nor the tastes (price-quantity-income functions) of the two communities are assumed to have changed.³ The quantity of money as well as the velocity of its "commodity circulation" is also assumed to have remained the same, thus leaving unchanged the total value of products of both countries taken together: in both positions it equals \$72. The difference between the two equilibrium positions is due only to the reaction of our economic system to a given primary change, the capital transfer from A to B.

The result of a comparison of our four tables can be summarized in the following four points:

1. The price of meat, which is in both positions exported from A to B, has increased, while the price of wheat, which moves in the opposite direction, has decreased, *i.e.*, the "net barter terms of trade" have turned in "favor" of the lending country.

2. In the second position the *balance of trade* of the borrowing country B has become *negative*: the value of its imports has come to exceed the value of exports by the total amount of the "loan."

3. (a) The *total expenditures* (= income from sale of its product plus the amount transferred from abroad) of the borrowing country B have become *smaller* than they were without the "loan." (b) At the same time the expenditures of the lending country A (= value of its own products minus the amount transferred abroad) has *increased* in comparison with the initial

Table 2 Position II: with transfer of \$3 from community A to community B.

a. Production (receipts)

	Price \$	Community A		Community B		Total A and B	
		Quantity	Value \$	Quantity	Value \$	Quantity	Value \$
Meat	3	14.5	43.5	6	18	20.5	61.5
Wheat	0.75	6	4.5	8	6	14	10.5
Total	....	....	48	....	24	....	72

b. Consumption (expenditures)

	Price \$	Community A		Community B		Total A and B	
		Quantity	Value \$	Quantity	Value \$	Quantity	Value \$
Meat	3	11.75	35.25	8.75	26.25	20.5	61.5
Wheat	0.75	13	9.75	1	0.75	14	10.5
Total	....	....	45	....	27	....	72