National Institute of Economic and Social Research

# World Inflation Since 1950

**An International Comparative Study** 

A. J. Brown

## THE NATIONAL INSTITUTE OF ECONOMIC AND SOCIAL RESEARCH

## Economic and Social Studies XXXIV

### WORLD INFLATION SINCE 1950

An International Comparative Study

Published by the Press Syndicate of the University of Cambridge The Pitt Building, Trumpington Street, Cambridge CB2 1RP 32 East 57th Street, New York, NY 10022, USA 10 Stamford Road, Oakleigh, Melbourne 3166, Australia

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First published 1985

Printed in Great Britain at The Bath Press, Avon

Library of Congress catalogue card number: 84-29252

British Library cataloguing in publication data

Brown, A.J. (Arthur Joseph)
World inflation since 1950: an international comparative study. – (Economic and social studies; 34)

1. Inflation (Finance)
I. Title II. Darby, Jane III. Series
332.4'1 HG229

1SBN 0 521 30351 6

Thirty years ago, I wrote a book which, with what can now be seen as excessive optimism, I entitled 'The Great Inflation, 1939–51'. The present work is an attempt to make sense of the greater inflation which has occurred since then. Like Goethe, returning in his mature years to finish 'Faust', I might well ask of the shadowy forms I had tried to grasp:

Versuch ich wohl, euch diesmal fest zu halten? Fühl ich mein Herz noch jenem Wahn geneigt?

There are, indeed, reasons for caution. In the literary field, sequels are not always a success. The scene to be depicted, in my case, has been greatly broadened, in that the period is longer, and the relevant literature is vastly greater than it was in 1955. Since one reputable journal reviewed the earlier book under the heading 'A canvas too broad', I cannot say I was not warned. I have, however, not resisted the temptation to try to make a single picture of a worldwide process, most of the best treatments of which, in recent years, have taken the form rather of sets of conference papers than of works of one or two pairs of hands.

To make such a picture, one could, at the one extreme, write a survey of the literature or, at the other, start from the basic data and apply a mode of analysis of one's own choice. The treatment here lies somewhere between the extremes. It is not a systematic, econometric one, nor does it come near to surveying the whole of the immense literature; but it rests on direct examination of the data and also appeals to what seem to be the most important and relevant of the systematic studies which others have made. The general form which it takes, and its rather elastic geographical scope, are outlined in the last section of chapter 1. The main features of the inflationary processes which seem to me to emerge are drawn together in chapter 13. Whether I have grasped the substance, or only the shadow, the reader must decide.

Shortcomings in the finished product cannot be blamed on any lack of encouragement and help that I have received in working on it. The

late Andrew Shonfield was one of those who encouraged me to take up the story where I had left it in 1955, and the Royal Institute of International Affairs (under whose auspices the earlier study was produced) kindly agreed that this could most appropriately be done under the roof of the National Institute of Economic and Social Research. This scheme was made possible by a most generous grant from the Leverhulme Trust Fund, to which – and to its then Director, Ronald Tress, in particular – my warmest thanks are due.

I have been especially fortunate in having the help, in the National Institute, of Jane Darby. Not only was her work in compiling and processing data and in searching and appraising the literature indispensable, but the writing has benefited at every stage from her good judgement and economic expertise. It has benefited, also, from the comments and encouragement of the successive Directors of the Institute, David Worswick and Andrew Britton. The supporting services of the Institute, under the expert eye of Kit Jones, have, as always, been excellent; Anne Wright typed most of the earlier drafts and Fran Robinson prepared the final version for the printer. Any mistakes (and any outrageous views) that remain are my sole responsibility.

Finally, I have some acknowledgements to make nearer home. The University of Leeds, and its School of Economic Studies, have continued to provide me with invaluable library, and other facilities long after I have disappeared from their payroll; I am greatly indebted to my son, William Brown, then Director of the Industrial Relations Research Unit in the University of Warwick, for comments and suggestions on chapter 8, and my wife has added to the infinite debt of gratitude I owe her, not only by much help with the index, but by bearing with my retreat into my study at a time when retirement might have been expected to make me more useful about the house.

October, 1984

A. J. BROWN

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#### RECONNAISSANCE AND PLAN

#### THE RECORD OF INFLATION

The years 1950-79, over which we have chosen to study experience of inflation, clearly provide us with plenty of raw material. Before embarking on our main analysis it will be useful to make a preliminary reconnaissance and to set the period in context.

Inflation is not a very rare phenomenon in economic history; the ancient world was very well acquainted with it; in the Middle Ages it was not unknown, despite the constraints of a general scarcity of the precious metals; the discovery of the New World produced a protracted inflationary episode of at least West European extent, and each of the world wars since the late eighteenth century has brought inflation on an international scale. There have been, in addition, a fair number of more local occurrences, often, but not always, connected with physical conflict.

The inflation of our period was both extensive and severe (see table 1.1). No market economy avoided it, and none seems to have escaped with less than a doubling of its consumer price index. Only the official prices of some centrally planned economies (the USSR, Bulgaria, Czechoslovakia) showed virtually no increase, and those of some others (Poland, Hungary) only a small one. The International Monetary Fund gives a 'world' (weighted) average increase of 5.3-fold, and the median country increase is about the same. The United Nations indices for US dollar prices of internationally traded goods show a 3.6-fold increase in the case of manufactures, and a 4.8-fold one in that of primary products. The greater number of market economies show increases between two- and seven-fold; not many (Spain, 10.6-fold, being one) show higher increases than that until we come to very much higher ones, ranging from between 30 and 80-fold (Colombia, Ghana, Israel, Peru, Turkey) to 12,000-fold (Uruguay) and 100,000-fold (Argentina).

This suggests a bigger total price rise, by most criteria, than that of the second world war and its immediate aftermath (say July, 1939 to August, 1948), when the median increase among 45 countries for which indices are available, mostly of wholesale prices, but some of cost of living, appears to have been a little more than a

	Table 1.1	Consumer price	index levels, 1979	1950 = 1
Argentina		0.000,001	Australia	5.5
Uruguay		12,058.0	Denmark	5.5
Bolivia		719.0	Fhilippines	5.5
Brazil		275.0	Sweden	5.0
South Korea		183.0	Norway	4.9
Israel		80.5	South Africa	4.9
Iceland		60.4	India	4.3
Paraguay		54.0	Austria	4.1
Ghana		50.0	Morocco	4.1
Peru		45.3	Costa Rica	3.6
Turkey		40.3	Netherlands	3.4
Colombia		29.2	El Salvador	3.4
Yugoslavia		15.0	Burma	3.4
Spain		10.6	Canada	3.2
Mexico		9.7	Tunisia	3.2
Portugal		7.9	Belgium	3.1
Ireland		7.0	United States	3.0
Finland		6.7	Dominican Republic	3.0
Greece		6.6	Egypt	2.9
Iran		6.5	Malta	2.7
United Kingdom		6.3	Guatemala	2.7
New Zealand		6.2	Sri Lanka	2.6
Italy		5.9	Switzerland	2.5
Japan		5.7	West Germany	2.4
France		5.7	Malaysia	2.1

Source: International Financial Statistics.

three-fold one (see Brown, 1955). There is, however, the noteworthy difference that our period affords no cases of really full-blooded hyperinflation, wheareas the second world war does. With the striking examples before us of Argentina, Uruguay, and even some of the other very high inflation countries just mentioned, this may seem a surprising statement. Our justification must be that it is best to reserve the term hyperinflation for those cases where a currency virtually blows itself out of most of its normal uses as a medium of exchange and a store of value and, usually, has to be replaced with a new one, as happened with the Greek currency in 1944 and the Hungarian in 1946. The criterion of a currency having put itself largely out of use is that its velocity of circulation has increased to many times its normal value (or, to put it in the opposite way, the real value of the money stock is only a small fraction of what it has normally been). The circumstances in which this happens vary greatly from one case to another (see Brown, op. cit., chapter 8), but drastic rises in velocity do not seem to occur unless inflation has reached some high level such as a quadrupling of prices in a year. Cagan, in his classic study (1956), defines hyperinflation, arbitrarily,

as setting in when prices rise 50 per cent in a month – equivalent to 130-fold in a year. There has been nothing like that in our period.

A glance at the course of velocity of circulation in Argentina, the star case of very high inflation in our period, shows a rise of velocity by about 60 per cent after a year of 100 per cent inflation in 1959, but no great variation thereafter, even when prices more than quintupled in 1976. Money was still very much in business in 1979. There is a sharp contrast here with the Greek and Hungarian hyperinflations connected with the second world war in which, at their peaks, with prices in the former case rising nearly 60 per cent a day, in the latter case trebling each day, the aggregate real values of the currency in circulation fell to fractions of 1 per cent of their pre-hyperinflation levels.

A similar comparison may be made between the inflation of our period and that of the first world war and its immediate aftermath. By 1920 consumers' prices had more than doubled in the United Kingdom and nearly doubled in the United States; wholesale prices had doubled or trebled in most countries except the belligerents of continental Europe, where much larger increases had occurred. True hyperinflations (on Cagan's definition) either had arrived, or were shortly to arrive, in Austria, Hungary, Poland, Russia and, most notoriously, Germany.

The French Revolutionary and Napoleonic wars had also produced widespread inflation which varied from a doubling of prices in the United Kingdom and the United States to much higher increases in central Europe. France had already, by 1796, suffered and recovered from the episode of the paper assignats, which had fallen to ½ per cent of their individual face value in terms of silver (see Bresciani-Turroni, 1937) (and collectively to about a thirtieth of the silver value of the amount of them in circulation) two years earlier – perhaps only marginal as an example of hyperinflation, but a notable example of flight from a paper currency.

In comparison with world war periods, therefore, our period produced larger price increases for the generality of countries, but no truly hyperinflationary fireworks. Although two wars – in Korea and Viet Nam – powerfully influenced events within it, it was far from being a period of war economy; it was, indeed, unusual for a period of its length in that no major country was fully mobilised for war within it. But also, in comparison with the two periods earlier in the twentieth century which were dominated by war economy or reconversion, it was much longer – roughly three times as long – though the relevance of this may be modified when we consider the way in which inflation was concentrated within particular sub-periods of it.

How does it compare with the other major and widespread inflation not connected with world war, the 'price revolution' of the sixteenth-seventeenth centuries? Keynes, in a famous passage in the 'Treatise on Money' characterised the inflationary results of New World gold and silver as being a five-fold increase of Spanish prices over about 80 years (to 1600), a 2.5-fold increase in French prices over a similar, but slightly later period, and, in England, a rise which he did not precisely quantify during the 90 or 100 years ending in 1650. (According to the later studies of Knoop and Jones (1933) and of Phelps Brown and Hopkins (1956), English cost of living rose perhaps five- or six-fold between the beginning of the sixteenth century and the middle of the seventeeth, a particularly sharp rise occurring in the two middle decades of the sixteenth.) We again have evidence, therefore, of a fairly widespread inflation of the size typical of the middle range of experience in our period – but spread over three or more times as long.

If, instead of looking at total price increases over a period, we have regard to average annual rates of price increase, we can say that the rate for the median market economy in our period was about 6 per cent, and the corresponding figure for 1939-48 a little over twice as great. For 1914-20 (which excludes the hyperinflations in some countries where they subsequently developed), the median for the United States, Canada, Australia, Japan and twelve European countries was a little higher (15 per cent) though the figures for those countries range from 8 per cent (Australia) to 93 per cent (Austria). In contrast, the annual rates for the price revolution of the sixteenthseventeenth centuries work out at between 1 and 2 per cent, though it is possible that the trend rate in England over a couple of decades in the middle of the sixteenth century may have been as high as 3 per cent per annum. In average annual rate, therefore, the inflation of our period stands somewhere between that of the longest seriously upward price trend of modern history and those of the short, sharp shocks imparted by world wars and their immediate aftermaths.

In considering that period, however, there are two further things to remember. The first is that it is only part of a longer inflationary period. It followed immediately after one of the world war inflations just referred to, which in turn, had followed with little or no intermission on a cyclical upswing in prices and it has itself been succeeded, up to the time of writing, by further inflation, not yet over. The second is that it was a far from homogeneous period, during which the rates and circumstances of inflation underwent important changes. Let us look briefly at each of these things.

In the United Kingdom, both the consumer price index and the