

The Truth About Inflation

Paul Donovan



The Truth About Inflation

Paul Donovan

First published 2015
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

by Routledge
711 Third Avenue, New York, NY 10017

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

© 2015 Paul Donovan

The right of Paul Donovan to be identified as author of this work has been asserted by him in accordance with the Copyright, Designs and Patent Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Disclaimer: The opinions and statements expressed in this book are those of the author and are not necessarily the opinions of any other person, including UBS AG. UBS AG and its affiliates accept no liability whatsoever for any statements or opinions contained in this book, or for the consequences which may result from any person relying on such opinions or statements.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

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

Donovan, Paul, 1972–

The truth about inflation / Paul Donovan.

pages cm

1. Inflation (Finance) I. Title.

HG229.D636 2015

332.4'1–dc23

2014041863

ISBN: 978-1-138-02361-1 (hbk)

ISBN: 978-1-315-77629-3 (ebk)

Typeset in Times New Roman

by HWA Text and Data Management, London



Printed and bound by CPI Group (UK) Ltd, Croydon, CR0 4YY

‘Paul Donovan clearly demonstrates a critical issue for economic policy makers and investors. Even if inflation remains contained, specific groups in society will have a very different inflation experience from that portrayed by aggregate consumer price data. Understanding why and how inflation experiences differ from group to group will be increasingly important in creating a fairer society.’

*Right Honourable Danny Alexander MP,
Chief Secretary to the United Kingdom Treasury*

‘Inflation is a topic that can become deeply embedded in a political culture, as Paul Donovan makes clear. Properly understanding the politics as well as the economics of inflation is critical to investment success.’

Gerd W. Hintz, CIO Aequitas, Allianz Equity Advisors (Allianz Global Investors)

‘Unveils the ins and outs of inflation – always with the investor and practitioner in mind. The author’s sense of humour makes reading the book a real pleasure.’

Bo Bejstrup Christensen, Head of Asset Allocation, Danske Capital

The Truth About Inflation

Inflation is a simple topic, in that the basic concepts are something that everyone can understand. However, inflation is not a simplistic topic. The composition of inflation and what the different inflation measures try to represent cannot be summarised with a single line on a chart or a casual reference to a solitary data point. Investors very often fail to understand the detail behind inflation, and end up making bad investment decisions as a result.

The Truth About Inflation does not set out to forecast inflation, but to help improve its understanding, so that investors can make better decisions to achieve the real returns that they need. Starting with a summary of the long history of inflation, the drivers of price change are considered. Many of the 'urban myths' that have built up about inflation are shown to be a consequence of irrational judgement or political scaremongering. Some behaviour, like the unhealthy veneration of gold as a means of inflation protection, is shown to be the result of historical accident. In the modern era of lower nominal investment returns, inflation inequality (whereby some groups experience persistently higher inflation than others) is a very important consideration.

This book sets out the realities of price changes in the modern investing environment, without using economic equations or jargon. It gives investors the framework they need to think about inflation and how to protect themselves against it, whether the aggregate inflation of the future rises or falls from current levels.

Paul Donovan joined UBS in 1992 and is a managing director and global economist. Paul is responsible for formulating and presenting the UBS Investment Research global economic view.

To my father, Roy Donovan, who gave me my first economics book and who bore the spiralling cost inflation of supporting a son who wanted to be the economist, with remarkably little complaint.

Consider this the real return on your investment, Dad.

Illustrations

Figures

| | | |
|-----|--|-----|
| 3.1 | A broad price index in the UK from 1830 until 1913 | 52 |
| 3.2 | The price of a gallon of milk in the US, in paper dollars and gold dollars | 53 |
| 6.1 | UK high inflation perceptions versus 'core' inflation | 100 |
| 6.2 | UK high inflation perceptions versus food and energy prices | 101 |
| 6.3 | US consumer price inflation for durable goods and non-durable goods | 102 |
| 6.4 | Consumer price indices in recent times according to modern weightings, and approximating the weightings of the 1917 index | 113 |
| 7.1 | The cumulative change in prices for the poorest 20 per cent and richest 20 per cent in society, for selected economies, 1997 to 2014 | 121 |
| 7.2 | The level of income inequality compared to the difference between rich and poor peoples' inflation, 1997 to 2013 | 124 |
| 7.3 | The IMF commodity price level compared with the US consumer price level | 126 |
| 7.4 | Overall US consumer price inflation and consumer price inflation reweighted for spending by the elderly | 131 |
| 7.5 | Australian inflation rates – average, lower-income elderly and higher-income elderly | 132 |
| 8.1 | British exporters raise sterling prices and hold foreign prices unchanged when the pound weakens | 154 |
| 8.2 | Japanese export price inflation rates in invoice currency terms, and converted into yen | 155 |

Tables

| | | |
|-----|---|-----|
| 4.1 | Inflation weights in different advanced economies today | 61 |
| 6.1 | Selected economies' hedonic adjustments | 108 |

Boxes

| | | |
|-----|--|-----|
| 1.1 | Let them buy bread | 4 |
| 5.1 | Money demand in hyperinflation | 89 |
| 8.1 | Price and floating exchange rate theory | 151 |
| 9.1 | The debt–inflation myth: the British example | 173 |

Acknowledgements

I have long wanted to write a book on inflation; economists tend to have the strangest desires. Several things provoked my interest in the topic. Perhaps being a child of the 1970s, and British to boot, has meant that inflation is something always lurking in the background of my subconscious. Even as a child I was aware that prices changed. I can remember the creeping cost of the mid-morning milk-and-biscuit at school, and the point at which the two pence coin that had previously bought me a chocolate biscuit on a Friday was no longer sufficient, creating an early and powerful form of the 'loss aversion' theory that pervades this book. (Believe me, the loss of that chocolate biscuit was very, very keenly felt. Do not let anyone tell you that a small piece of shortbread is an adequate substitute.)

More recently, sitting on the investment committee of St Anne's College, Oxford, has made me very aware of the problems of relying on headline inflation as a generic statistic. The inflation in costs faced by the college bears little relation to the headline UK consumer price index for much of the time, and the investment committee spends a great deal of effort trying to overcome the differences. The discussions of my colleagues on the committee, who have a truly frightening depth of experience and wisdom, have always proved a source of stimulation for my work. I always feel my membership of the committee is fraudulent, for I take away infinitely more than I contribute to the committee meetings. Though it will not compensate for everything St Anne's has given me over the years, the royalties from this book are being donated to the college.

Working at UBS Investment Bank has also been a huge source of intellectual stimulus. Over two decades of discussions with colleagues have led to countless instances where my views have been corrected, adjusted and polished. Larry Hatheway, chief economist of UBS, deserves special mention as heading a department that not only allows economists to pursue their own projects, but provides an environment in which proper discussion and constructive criticism can take place. George Magnus, Larry's immediate predecessor, set that environment in place and it has been a privilege to be able to argue repeatedly with George on a wide range of economic (and other) issues over the years. The views of other current and former colleagues have been very helpful: whether wittingly or unwittingly provided, I must acknowledge a real debt to Maury Harris,

Reinhard Cluse, Tao Wang, Duncan Wooldridge, Scott Haslem, Andy Cates, Jeff Palma, Erika Karp and Justin Knight.

Other colleagues very kindly gave up their time to read and check various chapters. Edel Tully, one of the most experienced minds on the topic of precious metals, very kindly looked over the chapter on gold. Ramin Nakisa, an accomplished author on financial assets, took time from his more cerebral reading to look over the chapter on inflation history.

I should also give a word of thanks to Julie Hudson, UBS's head of Socially Responsible Investment, who co-authored two books with me (what books, you ask? Why, *From Red to Green: How the Financial Credit Crunch Could Bankrupt the Environment* and *Food Policy and the Environmental Credit Crunch*. Both still available from all good booksellers and suitable purveyors of e-books.) Julie's hard work as an author, her patience as a colleague and her superior command of the English language made the last two books far easier to write than this.

Ruth Ridout, with considerable bravery, agreed to edit the text of this book, and with considerable tact pointed out the many glaring errors that cropped up (she has the nicest way of indicating when something is complete gibberish). Philip French of UBS also reviewed the text in its entirety with his customary good humour and great eye for detail.

I also have the great fortune to have had the support of friends and family, who have sat listening to my rambling pontification with tolerance, or at least without throwing things at me (most of the time). My nieces Louise, Emma and Sammy are always willing providers of honest criticism – a sample being, 'That's just my uncle: he's on TV and writes books and stuff, but he's really boring', which seems a pretty succinct description of who I am. David Wareham, Alison Wareham, Ciara Wells, Peter Wells, Bhauna Patel, Mark Shepherd and Trish Shepherd have consistently exhibited the enormous depths of tolerance that is a necessary condition of being a friend of mine, and have made valiant efforts not to shut me up when I hold forth on loss aversion and similar fascinating subjects. Chris and Judith Trimming have, as ever, provided a refuge from the pain of writing and editing.

Despite all the support and help, the responsibility for any errors or omissions must be my own, I suppose. Believe me, if I could find a way of blaming someone else, I would. But it seems if the reader has reason to disagree with anything that follows, it must be my fault.

Contents

| | |
|--|-----|
| <i>List of illustrations</i> | x |
| <i>Acknowledgements</i> | xii |
| 1 What is inflation? | 1 |
| 2 A brief history of inflation | 20 |
| 3 All that is gold does not glitter | 44 |
| 4 What makes up inflation? | 59 |
| 5 Printing money never, ever, ever creates inflation | 78 |
| 6 Inflation numbers ‘aren’t true’ | 97 |
| 7 Inflation numbers really aren’t true | 119 |
| 8 It is all the fault of the foreigner | 139 |
| 9 The debt–inflation myth | 159 |
| 10 Inflation and the modern investor | 178 |
| <i>Bibliography</i> | 188 |
| <i>Index</i> | 194 |

1 What is inflation?

The attempt to understand money has made more persons mad than love.

(Benjamin Disraeli)¹

In 1795, in Fordingbridge, Hants, England, one Sarah Rogers was tried, convicted and sentenced to three months' hard labour in prison. Today, a three-month jail sentence (without the hard labour) is handed down for a crime like assaulting a police officer. Back in 1795, Sarah Rogers had done something that was considered far more serious in the eyes of the law to warrant her incarceration. Sarah Rogers was convicted of campaigning for cheaper butter. Sarah Rogers was imprisoned for complaining about a very narrow form of price inflation.²

Sarah Rogers was imprisoned because the government was afraid it might lose control of society if inflation got out of hand. There had been an assassination attempt against the king in October of the same year, amidst a London riot over food price increases (price increases for which the king and government were blamed). Clearly, inflation and government were assumed to be intimately associated, even in the late eighteenth century, and inflation was taken seriously as a threat to the stability of the realm.

The importance of inflation has not diminished. There were riots over the price of rice in Japan in 1918.³ Social order disintegrated in Germany during the hyperinflation of 1923, with the state of Bavaria effectively seceding (briefly) from the country. In 1951, the US House of Representatives' Committee on Education and Labor felt itself able to declare that the consumer price index was 'the most important single statistic issued by the government'.⁴ A generation later, in the 1970s, some quite polemical ideas were being voiced. The British journalist William Rees-Mogg supported the 1973 Chilean *coup d'état* as a price worth paying for the control of inflation in that country. Samuel Brittan (now columnist at the *Financial Times*) and *The Banker* magazine both warned that democracy in developed economies might not be able to handle inflation and that inflation may in turn undermine democracy. Margaret Thatcher, as British leader of the opposition, declared in 1975 that 'rampant inflation, if unchecked, could destroy the whole fabric of our society'.⁵ This is all powerful stuff.

2 *What is inflation?*

Over two centuries after Sarah Rogers's trial, ninety years from the (first) German hyperinflation and more than a generation on from the fears of the 1970s, and concerns about price changes are still around (although expressing such concerns is not generally considered worthy of a custodial sentence, at least not in democratic countries). Indeed, one might say that concern is too small a word for the sentiment. Inflation provokes a more powerful, passionate response than almost any other concept in economics; and economics is a pretty passionate subject, as everyone knows. Unemployment is perhaps the only other economic issue that pushes the laity of non-economists to such heights of emotion.⁶ Investors express indignation about inflation, consumers express concern about the cost of living, workers express worries about real wages. For some the fear of inflation has risen exponentially in the wake of the global financial crisis, as central banks have printed significant amounts of money (in a process known as quantitative policy). And yet in spite of all the talk and concern about inflation, and in spite of the attempts to protect against inflation's supposed corrosive effects, inflation is something that is often wildly misunderstood by investors, the general public and a truly alarming number of politicians.

This misunderstanding of inflation is not helped by modern media. In the past, economic analysis was conducted by trained economists who would hand down their pronouncements (shrouded with an appropriate degree of Delphic obscurity) to be reverentially received by the mass of the population with all the appropriate awe and deference that an economist's views deserve. Today, economic analysis has become economic anarchy. The amateur and unqualified economic pundit of the investment blog writes about consumer price inflation without actually grasping either its composition or its purpose. Business television channels want a simple, single-line graph that they can post on screen for thirty seconds, not a complex mass of numbers that are hedged with qualifications and 'yes, but...' caveats at every turning point. Our understanding of inflation is not helped by a world increasingly dominated by 'sound-bite economics'. Inflation as a concept is simple in that it is something that anyone of normal intelligence should be able to readily understand. However, inflation is not *simplistic* in that it cannot be reduced to a single number or applied indiscriminately. Inflation is at once simple and multifaceted.

The purpose of this book is to redress the balance a little. The aim is not to present a means of forecasting inflation as such. Economic models abound regarding inflation prediction; most of them are relatively dreary, many are far too mathematical in their approach, and few are of any real use to the investor or consumer trying to think about inflation. Instead of presenting a model for *forecasting* inflation, therefore, this book tries to present a means for *understanding* inflation. Understanding what inflation is, and what it is not, is something that is increasingly missing from investment decisions. A proper understanding of why inflation cannot and should not be reduced to a simplistic single figure will prevent investors making potentially damaging decisions. It also identifies some of the challenges policymakers face in balancing the competing forces of perception and reality.

This opening chapter therefore aims to set out what inflation actually is. Like any good economics student, it is as well to begin by defining the terms that are to be used. Once we have established what the word 'inflation' really means, we can get down to the serious business of debunking the myths that surround the idea, and end up by trying to consider inflation in a way that is useful.

So what is inflation?

At its most crude, inflation is the rate of change in prices. Which immediately raises the question: what is a price? A price represents a standardised and mutually agreed measure of what one person is prepared to receive in exchange for whatever goods or services that they can provide. Nowadays we tend to standardise prices in terms of money (meaning notes and coins, or more likely their virtual, electronic equivalent) but it could be anything. The cow has been a medium of exchange for millennia, perhaps for longer than any other form of physical currency. Sea shells, cigarettes, split lengths of a stick – anything will do, and all in their turn have been major forms of currency (in America, Germany and England, respectively). Price is just a convenient shorthand means of summarising the relative value of different goods and services. Price is needed as a metric because those values shift – a point which is absolutely critical to understanding inflation.

Prices change all the time. The price of any good is, broadly speaking, determined by the demand for the product and the amount of supply that exists for that product. The fickleness of fashion means that demand for goods will change over time. The marketplace of the school playground shows this as well as anything: stickers displaying airbrushed images of the latest boy band will command a healthy premium while the band is in fashion, but as the fortunes of the band ebb and their fans emerge from the ether of their influence (or 'grow up' and acquire a more sophisticated aural taste) so the price of such products will decline – until, of course, the band reforms a couple of decades hence and the products assume value as memorabilia. What we have here is demand driving up price in the early stage, prices falling as demand fades without any corresponding reduction in supply, and then finally a constrained supply giving scarcity value at a time when demand, albeit possibly misguided demand, re-emerges.

We should expect individual product prices to change frequently *relative to other prices*. Fashion, seasonal supply and demand patterns, the need to manage warehouse space for retailers – all of these things will cause specific prices to fluctuate. As any parent knows, the price of taking a vacation will tend to rise during the school holidays. This is a seasonal demand-driven price shift (demand rises, when the supply of hotel rooms and flights cannot rise, or at least cannot rise too drastically). There is no reason why the seasonal surge in demand for vacations should lead to an increase in the price of bread. Rising vacation costs represent a relative price shift, not a general increase in prices.

The price change of one product *relative to other products* is not inflation. Sarah Rogers's period in prison was not really the result of protesting about inflation, although that was probably of scant comfort to her. Sarah Rogers was incarcerated

Box 1.1 Let them buy bread

One of my earliest recollections, as a small child, was being entrusted with the task of going to the local shop to buy a loaf of bread. I was given a fifty pence coin, which was a great curiosity to me as my handling of money up until that point had tended to be confined to the smaller denominations – the coppers of one and two pence coins, and the five pence pieces that were still largely the pre-decimalisation shilling coins. I can remember the value of this being earnestly impressed upon me; a fifty pence coin represented a considerable sum of money, at a time when a loaf of bread cost sixteen pence. I was instructed to go to the shop, buy the loaf, and return with bread and change.

Inevitably, I dropped the coin on my way to the shop. The loss of something as valuable as a fifty pence piece was traumatising, so much so that I can still remember roughly where I must have dropped the money – it is somewhere around N51:38:17, E0:25:38 if anyone wants to go and look for it. Of course, nowadays, looking for a fifty pence coin may not seem to be worth the effort. Back when I lost the money, fifty pence was wealth beyond the dreams of avarice (at least, beyond the avaricious dreams of a small child). Fifty pence then was the equivalent of three loaves of bread. Today fifty pence will purchase half a loaf of bread. However, adjusting for the general rate of inflation the fifty pence I lost many years ago is worth around three pounds sixty-five pence today (in 2014). That equates to three and a half loaves of bread (currently retailing for around a pound a loaf).

The trauma of decades past demonstrates an important point. Within a general price rise (to hold the spending power of fifty pence then requires over seven times as much money today), relative prices will still shift (the price of a loaf of bread is six times what it was). Bread is relatively speaking cheaper today. The price of everything has risen, but the price of bread has risen by less than the price of other things.

as the result of protesting a single price change (albeit an important price change, and at a time of general inflation). But, as a general rule, policymakers should not seek to intervene as prices change relative to one another. To legislate that a packet of butter must always have the same price as a loaf of bread would be ridiculous. What if demand for butter falls because people switch to low-fat spreads? Should the policymakers of a more health-conscious nation intervene in the free market because the price of butter falls under such circumstances? Or because the relative price of bread has risen (if one were to barter for it, one would have to offer more butter to obtain a loaf of bread)? This would be an absurd state of affairs. In this example people have chosen to demand less butter, so there is no need for the price of butter to remain as high as it once was.

In spite of the patent absurdity of mandating that the price of a loaf of bread must always equate to the price of a packet of butter, policymakers have repeatedly

been drawn to the siren calls of just such regulation. Medieval Europe is littered with examples of governments trying to hold back the incoming tide of relative price shifts by insisting that fixed prices be maintained. The fact that governments continually had to issue edicts on prices suggests quite strongly that none of these edicts were ever observed; the repeated failure of such policies did nothing to stop the attempt to legislate again. More recently, the Soviet Union's economy is a strong propaganda point for an economist arguing against relative price controls, with the resulting frequent shortfalls of specific products as fixed prices fail to balance supply and demand. US President Nixon's presiding over price controls (once as a bureaucrat during the Second World War, and once as president) was ultimately a failure on both occasions – in that relative price shifts were simply delayed, not prevented. Even in the twenty-first century we still find relative price shifts targeted by the media or politicians, provoking the general cry of 'something must be done'. Energy prices often provoke particularly shrill cries for regulation, and in many countries food prices are also regulated as a matter of course. Policymakers should guard against the siren calls of these attempts to brand relative price adjustment as a policy objective – and should politicians give way and confuse relative pricing with inflation, the consumer or the investor should be prepared to bet that the politicians will ultimately fail in any attempt at *relative* price control.

Relative prices are not therefore inflation and thus not a suitable objective for policymakers to pursue – with one caveat that we will come to. We should accept that not only *will* prices change with the ebb and flow of consumer demand (and product supply), but that prices *should* in fact change over time. What matters to policymakers, investors and consumers is not what one specific price is doing, but what prices overall are doing: inflation, in other words.

To qualify for the title 'inflation', any increase in prices needs to be across a broad range of products. This is because a broad-based increase in prices is likely to affect the quality of life of the average consumer in some way. Indeed, the modern concept of inflation originates in concerns about the 'cost of living' and the related concept of a 'living wage' (i.e. a wage that allows its recipient to maintain a stable quality of life over time). The idea that a government should intervene to target broad prices under the concept of the 'cost of living' is old; the concept of 'cost of living' dates to the early nineteenth-century debates about the Corn Laws in the United Kingdom (whereby the government intervened in the market for cereals, distorting the price).

It would be a sad outcome for humanity and, indeed, economists if the quality of life were held hostage to the relative shifts in price of boy band collectibles, or even the price of bread and butter. It is not single price changes that matter to the quality of life, but the broad range of price adjustment. If the price of a wide range of goods and services is rising, then people will be worse off – in that they will be able to purchase fewer goods and will enjoy a lower material standard of living, in the absence of an improvement in their income.

It could be added that a broad-based price change is indicative of some underlying economic shift, beyond the fickleness of fashion or seasonal demand. If the prices of disparate and unrelated products are all increasing at the same time,

that would seem a reasonable indicator that some broader macroeconomic force is at work behind the scenes. The underlying economic trends are a legitimate concern for policymakers.

The caveat to the idea that relative price changes do not constitute inflation is that there is one relative price that *does* matter. The astute reader of this book will have spotted that if the price of *money itself* has changed, that is a relative price shift that would and indeed should also be considered a measure of inflation. As prices are determined by supply and demand balances, if the supply of whatever is the medium of exchange (notes and coins, sea shells, cattle, gold, cigarettes, etc.) were to increase *relative* to the supply of everything else, and increase relative to the demand for whatever is the medium of exchange, then the price of all goods would rise in money (medium of exchange) terms. This is a relative price shift that policymakers have a duty to control, because it is inflation. In many, though not all, instances policymakers will also have a duty to control such inflation because very often it is the government that controls the relative supply of money (the medium of exchange). That has not always been the case, as we shall see in the next chapter, but in modern economics it is generally the case.

Real and nominal

This brings us then to the related concept of real and nominal measurement. Because so much in the world of economics is about the ‘value’ of things, and that value is nowadays calculated in terms of money, it is important to distinguish between times when something has become more valuable (desirable, essential), and times when the price of something has changed because of inflation. To go back to the example of a loaf of bread – the rise in the price of a loaf of bread from sixteen pence to one hundred pence does not mean that bread is nearly six times as valuable, or six times as important, or six times as desirable as it was in the past. The nominal price of bread has gone up, but the real price has in fact gone down (bread prices have fallen *relative* to the prices of other goods and services). Bread is actually less important or less desirable to the British consumer today than it was in the past.

Real measures therefore give us data adjusted for inflation and as such reflect the value or importance of a product or service. Nominal measures make no allowance for inflation. This distinction is generally well understood, though often misapplied, in the modern environment. The high inflation episodes of the 1970s and 1980s have caused people to learn how to distinguish between real and nominal. If wage increases fail to keep pace with inflation, for example, workers will soon identify the fact with almost as much readiness as any economist. However, the distinction between real and nominal is a relatively new distinction. Although there were attempts to distinguish the concepts in the 1920s and the 1930s (principally in France, where the economy suffered a significant bout of inflation after the First World War), as late as the 1950s the Bank of England did not often make the distinction between real and nominal economic variables.

So, if nominal is the face value, and real is the face value adjusted for inflation, what inflation rate should be used to create the real figure? This, as we shall see, is