

Principles of Economics in a Nutshell

Principles of Economics in a Nutshell provides a succinct overview of contemporary economic theory. This key text introduces economics as a social science, presenting the discipline as an evolving field shaped within historical context rather than a fixed set of ideas.

Chapters on microeconomics introduce concepts of scarcity and tradeoffs, market analysis (the Marshallian cross of supply and demand) and the theory of the firm and market structure. Chapters on macroeconomics begin with an explanation of national income accounting, followed by discussions of macroeconomic theory in the goods market and in the money market from both a Keynesian and Classical view. The text concludes with examples of how to expand upon core material, introducing the perspectives of feminist and ecological economics.

This book will be of great importance to students new to economics and is ideal for use on single-semester Principles courses or as a primer on economics courses in other settings. The text is fully supported by online resources, which include a set of analytical questions and suggestions for further reading for each chapter.

Lorenzo Garbo is Professor in the Department of Economics at University of Redlands, USA.

Dorene Isenberg is Professor in the Department of Economics at University of Redlands, USA.

Nicholas Reksten is Assistant Professor in the Department of Economics at University of Redlands, USA.

"This introductory economics textbook is long overdue. For too long, students taking their first economics course have had difficulty seeing how material can be used to address the most important issues we face in society. This textbook gives students a strong foundation in economic theory *and* shows them how to use what they learn to address interesting and relevant topics in economics such as non-market transactions, household production and environmental problems."

- Professor Matthew Lang, University of California, Riverside

"This textbook is for professors who want to teach the basics of economics within a broad and open-minded Liberal Arts framework."

- Professor James Devine, Loyola Marymount University

"A much-needed alternative textbook to engage students in today's economic issues."

- Professor Mark Maier, Glendale Community College

Principles of Economics in a Nutshell

Lorenzo Garbo, Dorene Isenberg, and Nicholas Reksten



First published 2020

by Routledge

2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge

52 Vanderbilt Avenue, New York, NY 10017

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

© 2020 Lorenzo Garbo, Dorene Isenberg, and Nicholas Reksten

The right of Lorenzo Garbo, Dorene Isenberg, and Nicholas Reksten to be identified as authors of this work has been asserted by them in accordance with sections 77 and 78 of the Copyright, Designs and Patents 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.

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

Names: Garbo, Lorenzo, author. | Isenberg, Dorene, 1949- author. | Reksten, Nicholas, author.

Title: Principles of economics in a nutshell / Lorenzo Garbo, Dorene Isenberg and Nicholas Reksten.

Description: Abingdon, Oxon; New York, NY: Routledge, 2020.

Includes bibliographical references and index.

Identifiers: LCCN 2019048044 (print) | LCCN 2019048045 (ebook)

ISBN 9780367321208 (hbk) | ISBN 9780367321192 (pbk)

ISBN 9780429316739 (ebk)

Subjects: LCSH: Economics.

Classification: LCC HB75 .G315 2020 (print) | LCC HB75 (ebook)

DDC 330--dc23

LC record available at https://lccn.loc.gov/2019048044

LC ebook record available at https://lccn.loc.gov/2019048045

ISBN: 978-0-367-32120-8 (hbk)

ISBN: 978-0-367-32119-2 (pbk)

ISBN: 978-0-429-31673-9 (ebk)

Typeset in Avenir, Minion and Trade Gothic by Servis Filmsetting Ltd, Stockport, Cheshire

Visit the eResources: www.routledge.com/9780367321192

Contents

CHARTER 1	Mayo they just the steel moulest introduction
CHAPTER 1	More than just the stock market: introduction to economics 1
	1.1 Economics as a social science 1
	1.2 On the scientific character of economics, ideology, and perspectives 4
	1.3 Concept of economic system 7
	1.4 Founders of modern economics: Adam Smith and John Maynard Keynes 9
	1.5 Alternative economic paradigms: feminist and ecological economics 14
CHAPTER 2	Not in the Garden of Eden: scarcity and tradeoffs 18
	2.1 Scarcity and inevitable trade-off among activities 18
	2.2 Production Possibility Frontier (PPF) and opportunity cost 20
	2.3 A special case of PPF: the budget constraint 25
CHAPTER 3	Led by an invisible hand: the market 28
	3.1 Markets: a general introduction 28
	3.2 Market demand 30
	3.3 Market supply 37
	3.4 Price adjustment mechanism (market mechanism) 40
	3.5 Government interventions: price floors and price ceilings 43
	3.6 Market failures: public goods and externalities 47

List of figures viii List of tables x Preface xi

√i	Contents	
		.7 Price elasticity of demand: sensitivity of the quantity demanded of a good to its own price 50
		.8 Income elasticity of demand 54
CHAPTER 4		nside the magic box: productivity, costs, nd profit maximization 56

- 4.1 Introduction to the Neoclassical firm: production function 56
- 4.2 Short-run vs. long-run in production
- 4.3 Short-run profit maximization: concepts of *economic* and *normal* profits 59
- 4.4 A survey of market structures 60
- 4.5 Total revenues for the perfectly competitive firm 61
- 4.6 Building block of short-run cost analysis: marginal productivity of labor 62
- 4.7 Short-run cost functions 64
- 4.8 Profit maximization in perfect competition (short-run) 70
- 4.9 Profit maximization in monopoly 74

Understanding the wealth of nations: national CHAPTER 5 income accounting 78

- 5.1 Circular flows and fundamental macroeconomic identities 78
- 5.2 Macroeconomic goals and national income accounting 85
- 5.3 Business cycles and trend 92
- 5.4 What else should count? Measuring time use

CHAPTER 6 In the short-run we are alive: macroeconomic theory and policy: the goods market

- 6.1 Introduction to the Classical or *supply-side* theoretical framework 97
- 6.2 Classical framework The Loanable Funds Model: determination of the interest rate in the real side of the economy 99

6.3	Macroeconomic policy in the Classical framework: goods market 102
6.4	Introduction to the Keynesian theoretical framework 108
6.5	The Kevnesian Cross: determination of equilibrium

- 6.5 The Keynesian Cross: determination of equilibrium income (or output) 108
- 6.6 Expenditure multipliers 113
- 6.7 Macroeconomic policy in the Keynesian framework: goods market 116

CHAPTER 7 Money changes everything: macroeconomic theory and policy: the money market 120

- 7.1 What is money? 120
- 7.2 Money creation 121
- 7.3 Classical theory: the quantity identity (and theory) of money 125
- 7.4 The Central Bank and the interest rate: the Keynesian monetary system 128

CHAPTER 8 The embedded economy 134

- 8.1 Introduction 134
- 8.2 Feminist economics 135
- 8.3 Ecological economics 138
- 8.4 Putting it together: the beginning of economic wisdom 141

Index 145

Figures

All figures have been created by the authors for the purposes of this work.

2.1	Production Possibility Frontier (PPF)	21
2.2	Johnnie's Production Possibility Frontier	23
2.3	Production Possibility Frontier: Strawberries & Wheat	24
2.4	Budget constraint: veggie-burgers and sodas	26
3.1	Graphical representation of a generic market demand	31
3.2	Effect of an increase in the desire for a good (generic)	32
3.3	Effect of an increase in income: normal goods (generic)	33
3.4	Effect of an increase in income: inferior goods (generic)	33
3.5	Effect of an increase in the price of a complement of good X	
	on the demand for good X	34
3.6	Effect of an Increase in the price of a substitute of good X on the	
	demand for good X	35
3.7	Graph of the demand function: $P = b - aQ$	36
3.8	Graph of the demand function: $P = 100 - 0.5Q$	37
3.9	Generic graphical representation of the market supply	38
3.10	Graph of the supply function: $P = cQ + d$	39
3.11	Graphical representation of the supply function: $P = Q + 10$	40
3.12	The market	41
3.13	Graphical representation of the market equilibrium	43
3.14	Graphical representation of an effective price ceiling	44
3.15	Graphical representation of an effective price floor	45
	Externalities	48
3.17	Generic market demand	51
3.18	Elasticity example	52
4.1	Market equilibrium and demand for the perfectly	
	competitive firm	62
4.2	Generic shape of the MPL	64
4.3	Patterns of MPL and MC	65
4.4	Marginal cost, once again	68
4.5	Average variable cost and average cost from marginal cost:	
	first step	69
4.6	Full representation of short-run cost curves	69
4.7	Information available to the perfectly competitive firm (choice	
	of level of output)	70
4.8	Profit maximization: reasoning at the margin	71

	Figures	ix
4.9 4.10	Positive economic profits for the perfectly competitive firm Negative economic profits (i.e. loss) for the perfectly	72
1.10	competitive firm	73
4.11	(Short-run) shut-down price	73
4.12	Information available to the monopolist (choice of the level of	
	output)	75
4.13	Linear demand and marginal revenue	76
4.14	Profit maximization in monopoly	76
5.1	Flow diagram of closed economy, no public sector	81
5.2	Flow diagram of closed economy with public sector	82
5.3	Business cycle and long-run trend in the economy	93
5.1	Loanable Funds Model	102
5.2	Loanable Funds Model: effects of expansionary fiscal policy	103
5.3	Loanable Funds Model: nudging firms to invest more	104
5.4	Loanable Funds Model: nudging households to save more	105
5.5	Consumption function	109
5.6	Keynesian model: determination of the equilibrium level of	
	income	112
5.7	Keynesian model: effects of an increase in public expenditure	117
7.1	Money demand	129
7.2	Money market equilibrium	130
7.3	Money market equilibrium and determination of investment	
	expenditures	132
3.1	The embedded economy	135

Tables

4.1	Practice exercise: calculation of the marginal productivity of labor	63
4.2	Practice exercise: calculations of all short-run costs	67
5.1	American Time Use Survey selected results	95
8.1	Hours (minutes) spent daily on paid and unpaid work by sex,	
	developing and developed countries, 2005–2013	137

We set out to write this brief volume on introductory economics in the hope that we could use our combined 60 years of teaching experience to create a text that would fit well with a one-semester principles course that combined macro- and microeconomics, like ours, in which the instructor was eager to supplement the textbook with up-to-date outside sources. Too often, we found textbooks to be bloated with unnecessary material that we had to ask students to read around and that were, as a result, too expensive. We felt that students could benefit from concise, straightforward presentations of the theoretical material that would leave plenty of room for the discussion of applications and extensions in the classroom. Using a draft of this work with our students confirmed that this approach could be effective in teaching introductory economics, and, indeed, that it would be superior to other, more traditional methods of introducing the subject.

Additionally, we had long realized that economics is a discipline badly in need of updating the ways in which introductory courses are approached. Much of this we had been trying in our individual courses. Rather than teach economics as a dogmatic, abstract, and distant discipline, we wanted to ground it in its history for students, showing them how it emerged and emphasizing that it is a living subject, with arguments and divergent views. We wanted to demonstrate to students that they could use the foundational models presented here as a bridge to explore other questions and schools of thought. We hope that using this text inspires students, especially those who may not have traditionally studied the subject, to take other courses in economics. We were all drawn to the subject, at least in part, because of its powerful potential to explain the world and solve social problems.

The book begins by introducing economics as a social science and explaining its historical roots, discussing especially the work of Adam Smith and John Maynard Keynes, arguably the two most important figures in the founding of modern economics. Next, it discusses the concepts of scarcity and tradeoffs in order to explore how societies might make decisions regarding resource use. The microeconomics portion of the text introduces the concept of markets, including the Marshallian cross supply-and-demand framework, different types of competition, market failures, and an analysis of supply decisions by firms. The macroeconomics portion begins by introducing a flow model of the macroeconomy and foundational concepts of national income accounting, and potential macroeconomic goals, such as GDP growth, price stability, and reduced unemployment. It then introduces

xii Preface

the competing macroeconomic paradigms of the Classical and Keynesian models, first in the goods market and then incorporating money and the banking system into the analysis. The final chapter of the book introduces the feminist and ecological economics schools of thought in order to demonstrate possible extensions of the models discussed in the text along with further questions that students may explore within the introductory course and elsewhere.

1

More than just the stock market

Introduction to economics

1.1 Economics as a social science

Social science, according to the Oxford Dictionary, is *the scientific study of human society and social relationships*. The traditional social sciences are: anthropology, economics, politics, psychology, and sociology; more recently, interdisciplinary fields such as women's, gender, and sexuality studies, race and ethnic studies, humanitarian affairs, and so on, have been added to the more traditional list.

What distinguishes economics among these social sciences? The noun economics comes from the Greek oikos-nomia, which became oeconomia in Latin. Nomia in Greek means "distribution, arrangement, management" (think also about: astronomy, agronomy ...), while oikos means "household". Thus, economics originally meant "management of the household, of the place we live in". This is a definition worth reflecting upon for a moment, as it may help you distinguish economics from adjacent fields of study: for instance, you may want to consider the fact that "management of the household" does not only imply making the household wealthier. Also, the emphasis of this definition falls on the household as a whole, and not on its individual components. This is quite different from what we experience in our highly individualistic society! In ancient Greece, the purpose of human existence was the enjoyment of a good life, and such an objective could only be attained within the community, that is, the *polis* (city-state). It was the community – and not the individual – that could achieve good social results, a prerequisite for well-being. Therefore, individuals were to conceive their conduct in economic affairs in light of their relations with each other and so with the community of citizens on which they depended. Here is how Aristotle (384-322 BCE) wrote about it in Politics:

Man is by nature a political animal. And therefore, men, even when they do not require one another's help, desire to live together; they are also brought together by their common interests in proportion as they severally

attain to any measure of well-being. This is certainly the chief end, both of individuals and of states. (III. 6)

Seeing then that the state is made up of households, before speaking of the state we must speak of the management of the household. ... And there is another element of a household, the so-called art of getting wealth [chrematistike], which, according to some, is identical with household management, according to others, a principal part of it. (I, 3)

More than two millennia have gone by since then, and you may think that many aspects of human and social existence have changed. You may think, for instance, that today we are much less dependent on others in the pursuit of our own well-being (individualism). But ... are we really? Where do you stand in regard to the possibility for human beings to achieve well-being un-collectively?

Let's reflect further on the definition of economics given earlier, which may be rephrased as: economics deals with the use of the resources of the household with the objective of producing the greatest well-being for the household itself. A simple generalization of "household" to whatever environment we live in updates the definition of economics to a concept we can relate to more easily: the management of resources of a city, a state, a country, and so on, with the objective of maximizing the overall well-being of the corresponding population. This is where troubles begin: is there a unique definition of the well-being of a community, a definition we could all agree upon? And even if we could agree to consider just one definition of the wellbeing of a community, how likely is it that we would also agree on how and what to measure in order to evaluate it? How likely is it that we would also agree on what policies or strategies would improve it the most? Even people with fairly similar visions of the world are unlikely to share the same idea of well-being, to choose the same unit of measure and techniques in order to evaluate it, to imagine the same policies to improve it. Economists generally agree that the purview of economics is the management of resources with the objective of maximizing the overall well-being of the community, but often disagree -like everybody else - on the practical, concrete translation of the community's well-being, on what and how to measure it, and on what to do in order to improve it. The next section of this chapter will provide you with some help in rationalizing the most common causes of divergence of opinion among economists.

Before we get there, though, let's do some more work on our definition. Given the inclusion of economics among the social sciences, the study of the management of resources for the well-being of the community must be conducted according to the methods and principles of science: it has to be a systematic and methodical study. Again, scientific comes from the Latin scientia, which means knowledge, and scientific then means productive of knowledge. How does one then approach the study of economics according to a scientific method?

Francis Bacon, a British philosopher, in 1620 published a treatise entitled *Instauratio Magna*, which contains the very first full and modern description of the *scientific method* (Bacon in fact became later known as the *founder* of the scientific method). In its most basic form, such method consists of a strict sequence of methodological steps, that can be summarized as follows:

- 1. faithful record of natural phenomena;
- 2. derivation of aphorisms system-free inferences of/from what one observed;
- 3. "negative instances" are used to eliminate faulty aphorisms, while aphorisms that are not negated by experimentation are gathered into generalizations that constitute "knowledge."

A couple of examples should clarify.

- Example 1: a truthful aphorism
 - I observe water running through my bare fingers and wetting them.
 - I derive the aphorism that when water runs through my bare fingers, my fingers get wet.
 - Are there instances in which this does not happen, that can negate my aphorism? No.
 - Thus, I can generalize and say that water wets bare fingers.
- Example 2: a faulty aphorism
 - I observe that during a downturn of the economy (recession) there are more poor people around.
 - I make the inference (aphorism) that during a recession people become poorer.
 - Are there instances that deny my inference? Yes: during the last recession, for instance, the average compensation of CEOs increased.
 - My aphorism is faulty.

Summarizing, the conceptual sequence of the scientific method – and so also of economic analysis – consists therefore of: facts \rightarrow theory \rightarrow check of the validity of the theory against facts.



1.2 On the scientific character of economics, ideology, and perspectives

In the previous section we have already come across some causes of disagreement among economists. There is more. We just saw that economics, as a social science, follows the scientific method: there is fundamental agreement on that; but how scientific can economics really be? Can the study of economics, which has so much to do with the human experience and understanding of reality, the types of interactions, norms, structure of society, historical patterns, and so on, lead to scientific knowledge? Joan Robinson, a celebrated British economist, in Freedom and Necessity (1970, p. 119) wrote: "The methods to which the natural sciences owe their success - controlled experiment and exact observation of continually recurring phenomena – cannot be applied to the study of human beings by human beings." Even if economists faithfully apply the scientific method, the outcome of their work may have to be taken differently from, say, the outcome of a chemical reaction that can be repeated ad infinitum in the same exact conditions. Thus, Robinson concludes that, "The function of social science is quite different from that of the natural sciences - it is to provide society with an organ of self-consciousness." What could that mean?

The degree of certainty with which economists perceive the outcome of their work (that is, how *scientific* economists consider the outcomes of their work) tend to divide economists into different camps: it typically distinguishes scholars who self-identify as *economists* or as *political economists*, depending on whether the focus of their work and their vision of the discipline are restricted to what can be objectively measured (*pure* economic relationships), or whether they can only conceive economic relationships in contextual ways, within the political, historical, cultural, and social framework in which economic relationships take place. Of course, the question of whether anything at all can be measured truly objectively remains open.

An additional and growing area of disagreement among economists has to do with the system of beliefs and moral values (*ideologies*) scholars abide by. The impact of ideology on one's approach can be best appreciated through examples. Consider, for instance, the following passage, taken from Sismondi's "On the Condition of the Work People in Manufactories" (1847 [1834], p. 196):

The most important of all questions in Political Economy [is] the share of happiness which wealth ought to diffuse among those who contribute by their labour to its creation. With us it is a fixed principle that social order ought never to sacrifice one class of men to another, and that, whilst admitting divers conditions, poor as well as rich, these differences are only