

# MACROECONOMICS

FIFTH CANADIAN EDITION

**OLIVIER BLANCHARD**

Massachusetts Institute of Technology

**DAVID JOHNSON**

Wilfrid Laurier University

**PEARSON**

Toronto

*À Noelle  
O.B.*

*To Susan  
D.J.*

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# A B O U T   T H E   A U T H O R S

## Olivier Blanchard

**Olivier Blanchard** is the Robert M. Solow Professor of Economics at the Massachusetts Institute of Technology. He did his undergraduate work in France and received a Ph.D. in economics from MIT in 1977. He taught at Harvard from 1977 to 1982 and has taught at MIT since 1983. He has frequently received the award for best teacher in the department of economics. He is currently on leave from MIT and serves as the Chief Economist at the International Monetary Fund.

He has done research on many macroeconomic issues, including the effects of fiscal policy, the role of expectations, price rigidities, speculative bubbles, unemployment in Western Europe, transition in Eastern Europe, the role of labour market institutions, and the various aspects of the current crisis. He has done work for many governments and many international organizations, including the *World Bank*, the *IMF*, the *OECD*, the *EU Commission*, and the *EBRD*. He has published over 150 articles and edited or written over 20 books, including *Lectures on Macroeconomics* with Stanley Fischer.

He is a research associate of the National Bureau of Economic Research, a fellow of the Econometric Society, a member of the American Academy of Arts and Sciences, and a past Vice President of the American Economic Association.

He currently lives in Washington, D.C. with his wife, Noelle. He has three daughters: Marie, Serena, and Giulia.



## David Johnson

David Johnson is Professor of Economics at Wilfrid Laurier University, and Education Policy Scholar at the C. D. Howe Institute.

Professor Johnson's areas of specialty are macroeconomics, international finance, and, more recently, the economics of education. His published work in macroeconomics includes studies of Canada's international debt, the influence of American interest rates on Canadian interest rates, and the determination of the exchange rate between Canada and the United States. His 2005 book *Signposts of Success*, a comprehensive analysis of elementary school test scores in Ontario, was selected as a finalist in 2006 for both the Donner Prize and the Purvis Prize. He has also written extensively on inflation targets as part of monetary policy in Canada and around the world. His primary teaching area is macroeconomics. He is coauthor with Olivier Blanchard of *Macroeconomics* the sixth U.S. edition.

Professor Johnson received his undergraduate degree from the University of Toronto, his Master's degree from the University of Western Ontario, and his Ph.D. in 1983 from Harvard University, where Olivier Blanchard served as one of his supervisors. He has worked at the Bank of Canada and visited at the National Bureau of Economic Research, Cambridge University, and most recently at the University of California, Santa Barbara as Canada-U.S. Fulbright Scholar and Visiting Chair.

Professor Johnson lives in Waterloo, Ontario, with his wife Susan, who is also an economics professor. They have shared the raising of two children, Sarah and Daniel. When not studying or teaching economics, David plays Oldtimers' Hockey and enjoys cross-country skiing in the winter and sculling in the summer. For a complete change of pace, Professor Johnson has been heavily involved in the Logos program, an after-school program for children and youth at First Mennonite Church in Kitchener, Ontario.



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# P R E F A C E

We had two main goals in writing this book:

- To make close contact with current macroeconomic events: What makes macroeconomics exciting is the light it sheds on what is happening around the world, from the major economic crisis that has engulfed the world since 2008, to the budget deficits of the United States, to the problems of the euro area, to high growth in China. The Canadian policy response to world events is a significant part of the story in this book. These events and responses—and many more—are described in the book, not in footnotes, but in the text or in detailed Focus boxes. Each box shows how you can use what you have learned to get an understanding of these events. Our belief is that these boxes not only convey the “life” of macroeconomics, but also reinforce the lessons from the models, making them more concrete and easier to grasp.
- To provide an integrated view of macroeconomics: The book is built on one underlying model, a model that draws the implications of equilibrium conditions in three sets of markets: the goods market, the financial markets, and the labour market. Depending on the issue at hand, the parts of the model relevant to the issue are developed in more detail while the other parts are simplified or lurk in the background. But the underlying model is always the same. This way, you will see macroeconomics as a coherent whole, not a collection of models. And you will be able to make sense not only of past macroeconomic events, but also of those that unfold in the future.

## New to this Edition

- Chapter 1 starts with a history of the crisis, giving a sense of the world of macroeconomics, and setting up the issues to be dealt with throughout the book.
- Chapter 2 and the appendix on national income accounting uses the new presentation of Canada’s national accounts announced in the fall of 2012.
- Chapter 4, the initial chapter on monetary policy and the *LM* curve, includes a treatment of the case where the central bank sets the interest rate.
- Chapters 6, 7, and 8 include the new presentation of Canada’s international payments, also revised in 2012.
- A new Chapter 11, which comes after the short- and medium-run architecture have been put in place, presents an extensive analysis of the world economic crisis. It shows how one can use and extend the short-run and medium-run analysis to understand the various aspects of the crisis, from the role of the financial system to the constraints on macroeconomic policy.
- Material on depressions and slumps has been relocated from later chapters to Chapter 11 and the material on

very high inflation has been reduced and included in Chapter 24.

- A rewritten Chapter 25, on fiscal policy, is an extensive analysis of recent fiscal policy in Canada.
- Chapters 23, 24, and 25 draw the implications of the crisis for the conduct of fiscal and monetary policy in particular, and for macroeconomics in general.
- Many new Focus boxes have been introduced. Most are necessary to consider the macroeconomic events related to the crisis. The new boxes include: “The Lehman Bankruptcy, Fears of Another Great Depression, and Shifts in the Consumption Function” and “Recessions in Canada since 1981” in Chapter 3; “Bank Runs and Bank Collapses” in Chapter 4; “The U.S. Economy and the *IS-LM* Model from 2000 to 2012” in Chapter 5; “The G20 and the 2009 Fiscal Stimulus” in Chapter 7; “Sweden Stops, Safe Havens, and the Limits to the Interest-Parity Condition” in Chapter 8; “Canada’s Macroeconomic Policy Response to the World Economic Crisis” in Chapter 10; “The Great Depression in North America,” “Increasing Bank Leverage in the United States—the SIV,” “Japan, the Liquidity Trap, and Fiscal Policy,” in Chapter 11; “The Release of GDP Growth Measures in Canada and the United States: Numbers to Watch” in Chapter 13; “Labour Productivity in Canada and the United States, 1961–2011” in Chapter 17; “Temporary Foreign Workers in Canada” in Chapter 18; “Why Deflation Can Be Very Bad: Deflation and the Real Interest Rate in America During the Great Depression” in Chapter 19; “The Yield Curve in Canada and the United States in 2013” and “Are Canadian Houses Overpriced in 2013?” in Chapter 20; “LTV Ratios and Housing Price Increases from 2000 to 2007” in Chapter 24; “What is Canada’s Cyclically Adjusted Budget Balance?” and “How Countries Decreased Their Debt Ratios after World War II” and “Is Fiscal Policy Neutral in the Short Run?” in Chapter 25.
- Figures and tables have been updated using the latest data available. The presentation of the national accounts and the balance in payments has been updated to the new conventions recently adopted by Statistics Canada.

## Organization

The book has two central components, a core and two additional sections. An introduction precedes the core. The two sections that extend the core are followed by a review of the role of policy. The book ends with an epilogue on the history of macroeconomics.

- Chapters 1 and 2 introduce the basic facts and issues of macroeconomics.

Chapter 1 offers a tour of the world, from Canada, to the United States, to Europe, to Japan. Some instructors

may prefer to cover Chapter 1 later, perhaps after Chapter 2, which introduces basic concepts, articulates the notions of short run, medium run, and long run, and gives a quick tour of the book.

While Chapter 2 gives the basics of national income accounting, we have put a detailed treatment of national income accounts in Appendix 1 at the end of the book. This both decreases the burden on the beginning reader and allows for a more thorough treatment in the appendix.

- Chapters 3 to 18 constitute the **core**.

Chapters 3 to 8 focus on the **short run**. They characterize equilibrium in the goods market and in the financial markets, and they derive the basic model used to study short-run movements in output, the *IS-LM* model. The open economy material appears in Chapters 6, 7, and 8.

Chapters 9 to 14 focus on the **medium run**. Chapter 9 focuses on equilibrium in the labour market and introduces the natural rate of unemployment. Chapter 10 develops a model based on aggregate demand and aggregate supply and show how that model can be used to understand movements in activity that come from shifts in demand. Chapter 11 adds shifts in aggregate supply and, more importantly, extends the model to look at the crisis. To understand the crisis there is a discussion of financial markets and the liquidity trap. Chapter 12 introduces the Phillips Curve and a basic tradeoff between the change in inflation and a higher level of unemployment. Chapter 13, which looks at the dynamic relation between inflation and economic activity, is a bit harder and is structured to allow an instructor to delete the chapter without loss of continuity. Chapter 14 looks at open economy issues in the medium run. In particular, there is an analysis of fixed and flexible exchange rates. Chapter 14 is also a bit harder and can also be dropped without loss of continuity.

Chapters 15 to 18 focus on the **long run**. Chapter 15 describes the facts, showing the evolution of output over countries and over long periods of time. Chapters 16 and 17 develop a model of growth, focusing on the determinants of capital accumulation and technological progress and the role of each in growth. Chapter 18 looks at growth in the open economy. It stresses the role of net immigration and foreign capital in creating economic growth. An appendix to Chapter 18 deals with the concept of an optimal current account deficit.

- There are two sections outside the **core**.

Chapters 19 to 22 focus on **expectations**. Expectations play a major role in most economic decisions and, by implication, in the determination of output. Chapter 19 introduces the basic tools. Chapter 20 focuses on expectations in financial markets. There is an extensive discussion of housing and the housing bubble as part of the crisis. Chapter 21 looks at investment and consumption. Chapter 22 presents complications in monetary and fiscal policy when expectations matter.

Chapters 23, 24, and 25 return to **macroeconomic policy**. While most of the first 22 chapters discuss macroeconomic policy in one form or another, the purpose of Chapters 23 to 25 is to tie the threads together. Chapter 23 looks at the role and the limits of macroeconomic policy in general. Chapters 24 and 25 review monetary and fiscal policy. Some teachers may want to use parts or all of these chapters earlier. For example, it is easy to move forward the discussion of the government budget constraint in Chapter 25.

- Chapter 26 is a short history of the development of macroeconomic thought. It includes a section asking what we have learned from the crisis.

## Alternative Course Outlines

Intermediate macroeconomics is typically taught as a single two-semester course with one instructor or as two one-semester courses, often with different instructors. The book's organization assumes two 12- or 13-week terms with some time used for evaluation and perhaps review. Some chapters are more difficult than others and would require more time in class.

If an instructor had a group of intermediate macroeconomics students for two consecutive semesters, it would make sense to use the book in the order it is written.

A first one-semester course could cover Chapters 1 through 14. This would bring the course to the end of the medium-run analysis. You could leave out Chapters 13 and 14 without loss of continuity and include some material in Chapters 23 to 25 if that were your preference.

The second one-semester course often reviews the core material, particularly if students have been away from macroeconomics for a period of time. It then covers the long run, the material on expectations and the material on policy.

## Features

We have made sure never to present a theoretical result without relating it to the real world. For this purpose, in addition to discussions of facts in the text itself, we have included **Focus** boxes, which expand on a point made in the text.

The margin notes running parallel to the text create a dialogue with the reader, smoothing out the more difficult passages and allowing for a deeper understanding of the concepts and the results derived along the way.

For students who want to explore macroeconomics further, there are two features present in some chapters:

- **Short appendices** to some chapters, which show how a proposition in the text can be derived more rigorously or expanded.
- A **Further Readings** section at the end of the some chapters, as appropriate, indicates where to find more information.

Each chapter ends with three ways of making sure that the material in the chapter has been thoroughly understood:

- A **summary** of the chapter's main points.
- A list of **key terms**.



- A series of **end-of-chapter exercises**, some of them requiring access to the Internet, some of them requiring the use of a spreadsheet program.

## The Teaching and Learning Package

The book comes with a number of supplements to help both students and instructors.

### For Instructors:

- **Instructor's Solutions Manual.** This manual includes solutions to all end-of-chapter questions and exercises. It can be downloaded from the Pearson Canada Catalogue.
- **Test Item File.** The test bank is completely revised with additional new multiple-choice questions for each chapter.
- **TestGen**—The printed Test Item File is designed for use with the computerized TestGen package, which allows instructors to customize, save, and generate classroom tests. The test program permits instructors to edit, add, or delete questions from the test bank; edit existing graphics and create new graphics; analyze test results; and organize a database of tests and student results. This software allows for extensive flexibility and ease of use. It provides many options for organizing and displaying tests, along with search and sort features. The software and the Test Item File can be downloaded from the Pearson Canada Catalogue.
- **Digital Image Library**—We have digitized the complete set of figures, graphs, and charts from the book. These files can be downloaded from the Pearson Canada Catalogue.
- **PowerPoint Lecture Slides**—These electronic slides provide section titles, tables, equations, and graphs for each chapter and can be downloaded from the Pearson Canada Catalogue.
- **Technology Specialists.** Pearson's Technology Specialists work with faculty and campus course designers to ensure that Pearson technology products, assessment tools, and online course materials are tailored to meet your specific needs. This highly qualified team is dedicated to helping schools take full advantage of a wide range of educational resources, by assisting in the integration of a variety of instructional materials and media formats. Your local Pearson Education sales representative can provide you with more details on this service program.
- **CourseSmart.** CourseSmart goes beyond traditional expectations, providing instant, online access to the textbooks and course materials you need at a lower cost for students. And even as students save money, you can save time and hassle with a digital eTextbook that allows you to search for the most relevant content at the very moment you need it. Whether it's evaluating textbooks or creating lecture notes to help students with

difficult concepts, CourseSmart can make life a little easier. See how when you visit [www.coursesmart.com/instructors](http://www.coursesmart.com/instructors).

- **Pearson Custom Library.** For enrollments of at least 25 students, you can create your own textbook by choosing the chapters that best suit your own course needs. To begin building your custom text, visit [www.pearsoncustomlibrary.com](http://www.pearsoncustomlibrary.com). You may also work with a dedicated Pearson Custom editor to create your ideal text—publishing your own original content or mixing and matching Pearson content. Contact your local Pearson Representative to get started.
- **peerScholar.** Firmly grounded in published research, peerScholar is a powerful online pedagogical tool that helps develop your students' critical and creative thinking skills. peerScholar facilitates this through the process of creation, evaluation, and reflection. Working in stages, students begin by submitting a written assignment. peerScholar then circulates their work for others to review, a process that can be anonymous or not, depending on your preference. Students receive peer feedback and evaluations immediately, reinforcing their learning and driving the development of higher-order thinking skills. Students can then resubmit revised work, again depending on your preference. Contact your Pearson Representative to learn more about peerScholar and the research behind it.

### For Students:

- **Spreadsheets.** Most of the chapters have one or more spreadsheets associated with the material in the chapter. These spreadsheets allow the student to work through a large number of calculations related to the chapter material. These spreadsheets can be downloaded by instructors from the Pearson Canada Catalogue.
- **CourseSmart.** CourseSmart goes beyond traditional expectations, providing instant, online access to the textbooks and course materials you need at an average savings of 60%. With instant access from any computer and the ability to search your text, you'll quickly find the content you need, no matter where you are. And with online tools like highlighting and note-taking, you can save time and study efficiently. See all the benefits at [www.coursesmart.com/students](http://www.coursesmart.com/students).

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