Modern Development Economics

Alan R Roe and Miguel Lebre de Freitas

This book is in draft and is based mainly on the teaching materials of the two authors in the UK and Portugal respectively. It also reflects extensive advisory work in developing economies over many years. The materials on this web site are preliminary versions of the component chapters of the book which are still subject to checking and review. Use of the materials is welcome subject to this health warning and appropriate acknowledgement of source.

Part One: Contents

This first Part of the book is in FIVE chapters and has the following objectives:

- To set out the broad content of the book and explain a few of the main difficulties that we confront in studying “development” (Chapter 1).
- To familiarize readers with a common platform of basic concepts and terminology (Chapters 1 and 2).
- To provide a narrative description of four major propositions – or “building blocks” - that we use to discuss the process of economic development and how these interact (Chapter 2).
- To introduce the main data sets and indicators that are now commonly used to assess progress in the fight against global poverty (Chapters 2 and 3).
- To provide readers with a common platform of facts about the present-day gaps in living standards between rich and poor countries in the modern world and the problems of assessing these accurately (Chapter 3).
- To provide a common understanding about the historical trends in living standards (and their divergences) in (i) the very long term since AD 1000 and (ii) in the modern era since 1950 and to introduce the Millennium Development Goals as the most recent basis for assessing the progress of “development” (Chapter 4).
- To see if we can uncover some basic patterns in development across a wide range of countries that might then be used to evaluate the relevance of the growth models discussed in Part II (Chapter 5)

Preface **Error! Bookmark not defined.**

Chapter 1. Establishing a Common Platform of Concepts and Facts Error! Bookmark not defined.

1.1 Scope of the Text **Error! Bookmark not defined.**

1.2 The Structure of the Book **Error! Bookmark not defined.**

1.3 What do we mean by Development? **Error! Bookmark not defined.**

Box 1.1: Definitions of Development are Controversial **Error! Bookmark not defined.**

1.4 Recognising the Disparities in Under-Development **Error! Bookmark not defined.**

1.5 Solutions to Under-development Proliferate **Error! Bookmark not defined.**

Box 1.2: HIPCS – a Laboratory for Understanding Deep Poverty **Error! Bookmark not defined.**

Box 1.3: Transition Countries – A Laboratory for Understanding the role of Institutions in Development

Chapter 2: Getting started – Four useful Building Blocks

2.1 Introduction

Box 2.1: Models of Growth – A Look ahead to Part II **Error! Bookmark not defined.**

2.2 The FOUR Building Blocks **Error! Bookmark not defined.**

Figure 2.1: Route Map for the Discussion **Error! Bookmark not defined.**

2.3 Building Block Number One - Labour Productivity is Crucial **Error! Bookmark not defined.**

Box 2.2: Income: Leisure Trade-Offs are Important to Living Standards but are less available in Poor Countries **Error! Bookmark not defined.**

2.4 Building Block Number Two - Capital Availability and Productivity **Error! Bookmark not defined.**

Box 2.3: Capital Productivity in the USSR –1960-1989 **Error! Bookmark not defined.**

Figure 2.3: Investment Choices in Market and Planned Economies **Error! Bookmark not defined.**

Box 2.4: It's Easy to Waste Capital! **Error! Bookmark not defined.**

2.5 Building Block Number Three - Changing Economic Structure as a Driver of Development **Error! Bookmark not defined.**

Figure 2.4 (a): Changing Shares of Production **Error! Bookmark not defined.**
Figure 2.4 (b): Changing Shares of Employment **Error! Bookmark not defined.**
Box 2.5: What Sort of Economy is China – Agricultural or Industrial? **Error! Bookmark not defined.**

2.6 Building Block Number Four: Consumer Choices and Changes in Relative Prices Drive Structural Change **Error! Bookmark not defined.**
Figure 2.5: Rising Incomes and Food Consumption **Error! Bookmark not defined.**
Box 2.6: Sectoral Shifts and Likely Development Patterns **Error! Bookmark not defined.**

2.7 Two Insights from the Bare-Bones Model **Error! Bookmark not defined.**
Example No. 1: The Paradox of Rising Productivity **Error! Bookmark not defined.**
Box 2.7: Productivity Growth and Global Capitalism: Two Views **Error! Bookmark not defined.**
Example Number 2: The Changing Preferences of Society **Error! Bookmark not defined.**
Box 2.8: Some Origins and Attributes of Democracy **Error! Bookmark not defined.**

2.8 Last Words **Error! Bookmark not defined.**

Chapter 3: Classifying Countries and Measuring Development

3.1 Introduction **Error! Bookmark not defined.**

3.2 Gross Domestic Product as the Baseline Measure **Error! Bookmark not defined.**
3.2.1 Advantages of that Measure **Error! Bookmark not defined.**
Table 3.1: The Equivalence between Production and Incomes: An Example for a Typical Firm or Farm **Error! Bookmark not defined.**
Figure 3.1: How Production Becomes Income **Error! Bookmark not defined.**
3.2.2 The Shortcomings of the Measure **Error! Bookmark not defined.**
Box 3.2: Adjusting the GDP Aggregates **Error! Bookmark not defined.**

3.3 Traded versus Non-Traded Goods and Services – a Crucial Distinction **Error! Bookmark not defined.**
Box 3.3: A Numerical Example **Error! Bookmark not defined.**
Box 3.4: The International Comparisons Project (ICP) **Error! Bookmark not defined.**
Box 3.5: Why Exchange Rate and PPP Comparisons of Incomes Diverge **Error! Bookmark not defined.**

3.4 Introducing the Human Development Indicator **Error! Bookmark not defined.**
Table 3.2: The HDI Weights and Scales **Error! Bookmark not defined.**
Box 3.6: The Atkinson Welfare Function and the HDI **Error! Bookmark not defined.**

3.5 Classifying Countries **Error! Bookmark not defined.**

3.5.1 The World Bank's classification of countries **Error! Bookmark not defined.**

Box on Data: A - Accessing the World Bank's GDP Data **Error! Bookmark not defined.**

Box 3.7: A Warning about using Average Income Data **Error! Bookmark not defined.**

Table 3.3: How the World Divides: Income Levels by Country in 2005 **Error! Bookmark not defined.**

Figure 3.2: Shares of Poor Countries and Poor People **Error! Bookmark not defined.**

Figure 3.3: Shares of Global Income **Error! Bookmark not defined.**

Table 3.4: Where in the World are the Poor People? - (data are for 2005) **Error! Bookmark not defined.**

Figure 3.4: The Geographical Location of the (153) Poorer Countries **Error! Bookmark not defined.**

Box 3.8: High Incomes and Development – Not a Straightforward Link! **Error! Bookmark not defined.**

3.5.2 Re-working the Classification using PPP- based Incomes **Error! Bookmark not defined.**

Figure 3.5: Comparing Incomes on Exchange Rate and PPP bases *(Source: World Development Report, 2003).* **Error! Bookmark not defined.**

3.6 Further Insights from the Human Development Index **Error! Bookmark not defined.**

Box on Data: B - How to Access the UNDP's HDI and related data **Error! Bookmark not defined.**

Table 3.5: The Human Development Index by Region, 2004 *(Source: UNDP Human Development Report, 2006)*

Error! Bookmark not defined.

Chapter Four: Development and Prosperity over Time

4.1 Introduction **Error! Bookmark not defined.**

Box 4.1: Two Worlds – *The Independent* May 31st 2003 **Error! Bookmark not defined.**

4.2 Interpreting Income Gaps **Error! Bookmark not defined.**

4.2.1 Absolute dollar gaps mean little **Error! Bookmark not defined.**

Box 4.2: The Algebra of Income Gaps **Error! Bookmark not defined.**

4.2.2 Comparisons over time should use PPP measures **Error! Bookmark not defined.**

Box 4.3: Who Actually Got Poorer in the Long Term? **Error! Bookmark not defined.**

4.2.3 It matters which Time Periods are chosen for comparisons **Error! Bookmark not defined.**

Box 4.4: The Lost Decade of the 1990s **Error! Bookmark not defined.**

4.3 The Very Long-Run Perspective **Error! Bookmark not defined.**
Box 4.5: Why New Commodities Matter **Error! Bookmark not defined.**
Figure 4.1: Income Levels since 1000 AD **Error! Bookmark not defined.**
Figure 4.2: Shares of GDP 1000-1998 **Error! Bookmark not defined.**

4.4 The Developing Countries after 1950 **Error! Bookmark not defined.**
Box 4.6: The 1950s as a Watershed for Development Thinking **Error! Bookmark not defined.**
4.4.1: The Major Asian Economies **Error! Bookmark not defined.**
Figure 4.3: Asian Growth: 50 Years of Rapid Progress **Error! Bookmark not defined.**
Box 4.7: Comparing China and India 1980-2001 **Error! Bookmark not defined.**
4.4.2 The Main Latin American Economies **Error! Bookmark not defined.**
Figure 4.4: Latin America: Impressive Post-War Surge but Not Sustained **Error! Bookmark not defined.**
4.4.3 Eastern Europe and the FSU **Error! Bookmark not defined.**
Figure 4.5: The FSU: The New Economic Powerhouse of the C20th but Collapse after 1990 **Error! Bookmark not defined.**
4.4.4 The Major African Economies **Error! Bookmark not defined.**
Box 4.8: Failed Industrialisation in Siberia 1970 - 2000 **Error! Bookmark not defined.**
Figure 4.6: A Brief Surge after Independence but Sluggish Growth since the mid-1970s **Error! Bookmark not defined.**
4.4.5 The Middle-East **Error! Bookmark not defined.**
Figure: 4.7: Rapid Growth Buoyed by High Oil and Gas Prices for a Time **Error! Bookmark not defined.**

4.5 How Does all this affect People? **Error! Bookmark not defined.**
4.5.1 Example 1 - Life Expectancy **Error! Bookmark not defined.**
4.5.2 Example 2 - Education **Error! Bookmark not defined.**
Box 4.7: Measuring the Quantity and Quality of Education **Error! Bookmark not defined.**
4.5.3 Example 3: Health and the Incidence of Major Illness **Error! Bookmark not defined.**
4.5.4 Example 4 - Food and Nutrition **Error! Bookmark not defined.**

4.6 Assessing Progress using the Human Development Index **Error! Bookmark not defined.**
4.7 So Have Income Levels Converged? **Error! Bookmark not defined.**
Figure 4.8: Income Convergence 1950-1998 (Unadjusted Data) **Error! Bookmark not defined.**
Figure 4.9: Income Convergence 1950-1998 recognising Population Size **Error! Bookmark not defined.**

4.7 The Millennium Development Goals – Targets for 2015 **Error! Bookmark not defined.**

4.7.1 Target 1: Halving the Numbers in Extreme Poverty **Error! Bookmark not defined.**

Figure 4.10: Progress with MDG 1: Halving Numbers in Poverty **Error! Bookmark not defined.**

4.7.2 Target 5 - Reducing the Incidence of Child Mortality **Error! Bookmark not defined.**

Figure 4.11: Progress with MDG 5: Two Thirds Reduction in Child Mortality **Error! Bookmark not defined.**

4.7.3 A Look at the Mainly Poor Regions **Error! Bookmark not defined.**

4.7.4 Finally a Look at the most Critical Country Cases **Error! Bookmark not defined.**

Figure 4.12: Selected MDGs in Sub-Saharan Africa **Error! Bookmark not defined.**

Figure 4.13: The Main Problem Countries **Error! Bookmark not defined.**

4.8 Main Issues and Conclusions **Error! Bookmark not defined.**

Chapter Five: Is there a Pattern to the Process pf Development?

5.1 Introduction **Error! Bookmark not defined.**

Box 5.1: The Story of Machar Tong Din, a Dinka from Nyala, South Darfur, Sudan **Error! Bookmark not defined.**

Figure 5.1: Per Capita incomes in Sudan and South Korea – 1950 to 2003 *(Source: Angus Maddison, University of Groningen web site)* **Error! Bookmark not defined.**

5.2 Objectives of the Chapter **Error! Bookmark not defined.**

Figure 5.2: Savings Rates by Income Level in 2004 **Error! Bookmark not defined.**

5.3 Method **Error! Bookmark not defined.**

Box 5.2: Historical approaches and the identification of Development Processes: An Example **Error! Bookmark not defined.**

5.4 The Chenery-Syrquin-Taylor Framework **Error! Bookmark not defined.**

Figure 5.2: The Changing Shares of Production as Income Rises. **Error! Bookmark not defined.**

Figure 5.3: Changes in Agricultural Production-Dependence as Incomes rise **Error! Bookmark not defined.**

5.5 A Taxonomy of Development Patterns **Error! Bookmark not defined.**

Table 5.1: Chenery and Syrquin Patterns - Summary of Results **Error! Bookmark not defined.**

5.6 The Accumulation of Physical Capital **Error! Bookmark not defined.**

Figure 5.5: Savings Rates (GDS) by Region 1980 to 2003 (% of GDP) **Error! Bookmark not defined.**
Figure 5.6: Savings Rates by Income Level 1980 to 2003 (% of GDP) **Error! Bookmark not defined.**
Table 5.2: Savings and Investment Balances in Low-Income Countries, 1980- 2003 **Error! Bookmark not defined.**
Table 5.3: Aid Support to Seven Selected Countries – 1990 to 2004 **Error! Bookmark not defined.**

5.7 The Accumulation of Human Capital **Error! Bookmark not defined.**
5.7.1 The Basic Patterns **Error! Bookmark not defined.**
Figure 5.7: Human Capital Accumulation and Income **Error! Bookmark not defined.**
Figure 5.8: Primary School Enrolment Rates in 2004 **Error! Bookmark not defined.**
Figure 5.9: Secondary School Enrolment Rates in 2004 **Error! Bookmark not defined.**
5.7.2 A Digression on the Welfare Aspects of Human Capital Accumulation **Error! Bookmark not defined.**
5.7.3 Stocks and Flows **Error! Bookmark not defined.**
Figure 5.10 Educational Attainments – Shares (%) of All Adults **Error! Bookmark not defined.**
Box 5.2: Health Status is also Relevant to Human Capital Accumulation **Error! Bookmark not defined.**

5.8 Changes in Resource Allocations **Error! Bookmark not defined.**
5.8.1 The Main Patterns **Error! Bookmark not defined.**
5.8.2 Other Resource Allocation Issues **Error! Bookmark not defined.**
Figure 5.11: Private and Government Expenditures and Income Levels **Error! Bookmark not defined.**
Figure 5.12: Export Dependence and Rising Income Levels **Error! Bookmark not defined.**
Figure 5.13: Developing Country Shares of Total World Exports, 1980-2000 *(Source: Elwyn Grainger Jones, (2005)* **Error! Bookmark not defined.**
Figure 5.14: Import Dependence and Rising Income Levels **Error! Bookmark not defined.**

5.9 Demographic Change **Error! Bookmark not defined.**
5.9.1 Demographic Transition and Population Momentum **Error! Bookmark not defined.**
5.9.2 Documenting the Patterns in Population Dynamics **Error! Bookmark not defined.**
Figure 5.15: Crude Birth Rates in 2004 (per 1,000 persons) **Error! Bookmark not defined.**
Figure 5.16: Crude Death Rates in 2004 (per 1,000 persons) **Error! Bookmark not defined.**
Figure 5.17: The Demographic Transition in Four Regions, 1950-2000 **Error! Bookmark not defined.**

Figure 5.18: Population Structures in Bangladesh and China – 2007 and 2025 (projected). **Error! Bookmark not defined.**

5.10 Stylised Facts **Error! Bookmark not defined.**

Table 5.4: Stylised Facts about Income Shares of GDP **Error! Bookmark not defined.**

References Error! Bookmark not defined.