

OpenStax Economics 3e

Transition Guide

The OpenStax Economics series – including *Principles of Economics* as well as *Microeconomics* and *Macroeconomics* – was significantly revised to focus on current economic data and analysis, while maintaining the structure and approach of the previous edition. Guided by extensive feedback from faculty, the authors deepened the coverage and discussion of recent economic trends, including the economic impacts of the COVID-19 pandemic and related domestic and international events. Student relevance is further emphasized through updated and expanded chapter-opening and current events narratives, reflecting topics and issues meaningful to the audience. Finally, dozens of charts and tables have been updated to surface more recent information.

The most significant additions to the textbook describe the research and analysis of more recent and diverse economists. These enhancements are intended to provide a more accurate representation of the broad contributions and principles of economic thought, and particularly its application to societal and governmental issues. We considered the variety of academic and personal interests that students bring to the course, and aimed to widen the impact of the concepts by discussing issues such as education spending, minimum wage laws, employment markets, entrepreneurship, technical innovation, and government aid. Examples of added economists include William A. Darity Jr., Kate Raworth, Carlota Perez, Thomas Sowell, Mariana Mazzucato, Dambisa Moro, and Elinor Ostrom. More specifics on related coverage is provided in chapter-by-chapter listings below.

We are aware that shifting sections and question numbers can lead to difficulty in the revision transition process; so, this revision was undertaken with no changes in chapter/section arrangements, learning outcome numbers, or question numbers. (Note that many questions were improved, but in a manner that preserved the numbering.) As a result, usage of homework systems and even generalized/templated course syllabi should be minimally affected.

The table below includes the major content updates for the textbook. In addition to these, we have made several hundred edits involving verbiage, terminology, and other minor corrections. A number of illustrations and photos (as well as their respective captions/credits) have been changed; if a figure/table is updated, you can assume that adjacent contextual text is usually changed as well. Finally, the descriptions in this guide are meant to be clear but brief, and in some cases the changes may be oversimplified; it is likely best to go to any sections in question and review the actual changes.

Section	Revisions and Updates
1 Intro	<ul style="list-style-type: none"> Minor updates to chapter-opening narrative
1.1	<ul style="list-style-type: none"> Addition of the experimental methods and applications of Duflo, Banerjee, and Kremer, set in the context of education barriers and spending efficacy. (Photo of the three Nobel winners also added.)

1.4	<ul style="list-style-type: none"> • Additions to chapter-closing vignette (Bring it Home) regarding agricultural use of data for crop yield maximization.
2 Intro	<ul style="list-style-type: none"> • Replacement of chapter-opening narrative with a new discussion of educational outcomes and ROI, including more recent BLS data.
3 Intro	<ul style="list-style-type: none"> • Updated prices and years of gasoline and other reference products.
3.1	<ul style="list-style-type: none"> • Changed order of learning objectives
3.4	<ul style="list-style-type: none"> • Under the Price Floors section, context updates for the US federal minimum wage, updated data on European Union agricultural purchases.
4 Intro	<ul style="list-style-type: none"> • Updated and improved introduction on baby boomers • Updated data on higher education student employment and their
4.1	<ul style="list-style-type: none"> • Updated Figure 4.2 (and caption), which is a labor market example referring to nurses in Minneapolis-St. Paul Bloomington • Added info on Thomas Sowell and Walter Williams positions and rationale regarding higher minimum wages.
6 Intro	<ul style="list-style-type: none"> • Improved language in Intro narrative, including changing the title
6.2	<ul style="list-style-type: none"> • In Clear It Up Box, clarified research regarding gender differences in spending.
8.2	<ul style="list-style-type: none"> • Title and labeling updates to figures 8.4 and 8.5
10.2	<ul style="list-style-type: none"> • Added context and improved language in prisoner's dilemma
12 Intro	<ul style="list-style-type: none"> • Updated developments regarding Keystone pipeline (also updates to conclusion at end of chapter)
12.1	<ul style="list-style-type: none"> • Updated and simplified Table 12.1 – Emissions
13 Intro	<ul style="list-style-type: none"> • Added narrative on Mariana Mazzucato's work on innovation, with a focus on US government's development and maintenance of GPS and its impact on the economy.
13.1	<ul style="list-style-type: none"> • Renamed section to "Investments in Innovation" • Updated Table 13.2 – Earnings in relation to educational experience • Added new subsection on "Societal Change as an Innovation Outcome," focusing on Carlota Perez's research on employment shifts related to information and communication technology
13.2	<ul style="list-style-type: none"> • Updated figure 13.4 – Patent filings (extended to 2020) • Updated table 13.3 – U.S. R&D expenditures
13.3	<ul style="list-style-type: none"> • Added description of Elinor Ostrom's research on communities that managed public goods, and her perspective on the non-tragedy of the

	commons
14.3	<ul style="list-style-type: none"> Updated data on union membership, as well as table 14.6 on the largest U.S. unions Updated figure 14.13 – The growth of service jobs
14.5	<ul style="list-style-type: none"> Added narrative about scientist and biotech innovator Lydia Villa-Komaroff, who overcame discrimination to make life-saving discoveries and launch the biotech industry. Added clarifying paragraph regarding discrimination and intent Added material on gender payment gaps related to unpaid work Added research of Jessica Pan, Jonathan Guryan, and Kerwin Kofi Charles related to wage gaps according to geography and attitudes, as well as job devaluation related to gender. In Clear It Up on housing discrimination practices in th 2000’s, added historical practice of redlining and its long-lasting outcomes Added research and perspective of William A. Darity Jr., providing a counterpoint to views that the marketplace will ultimately end discrimination Added context regarding EEOC and the work of Phyllis Ann Wallace to collect and analyze data for research and discrimination cases Updated Figure 14.16 – demographic changes
15.1	<ul style="list-style-type: none"> Updated table 15.1 on poverty rates by group, and 15.2 on poverty lines by country
15.3	<ul style="list-style-type: none"> Updated Figure 15.5 – EITC, CTC
15.4	<ul style="list-style-type: none"> Updated Figure 15.8 and table 15.6 on the Lorenz Curve
16.2	<ul style="list-style-type: none"> Updated Table 16.2 – Healthcare spending by country
17.2	<ul style="list-style-type: none"> Updated Figure 17.4 – interest rates Updated Figure 17.6 – Dow Jones Industrial Average Updated Table 17.2 – Rates of returns on S&P 500 Updated Figure 17.7 – Median Home Prices
Chapter 18	<ul style="list-style-type: none"> Overall updates to government and political data, including election expenditures (18.1), voter participation (18.2), and earmark expenditures (18.2)
19.1	<ul style="list-style-type: none"> Updated Tables 19.1 and 19.2 and Figure 19.3 and 19.5 on components of U.S. GDP on demand and production sides Updated Figure 19.6 – Types of Production Added brief overview of GNI as a measure of national wealth
19.2	<ul style="list-style-type: none"> Updated Table 19.5 and Figure 19.7 and 19.8 on Nominal GDP and Deflator

19.3	<ul style="list-style-type: none"> • Updated Figure 19.10 – Real GDP • Updated information on U.S. Recessions (including the COVID-related recession) • Updated Table 19.7 – U.S. Business cycles
19.4	<ul style="list-style-type: none"> • Updated Tables 19.8 and 19.9 – GDP and GDP per capita across countries
19.5	<ul style="list-style-type: none"> • Added research and perspective of Kate Raworth regarding utilizing GDP as a measure of national prosperity, and her advocacy of including non-monetized goods/services in measures of wealth
20.2	<ul style="list-style-type: none"> • Updated Figure 20.3 – Output per hour • Updated Figure 20.4 – Productivity growth
20.3	<ul style="list-style-type: none"> • Updated Figure 20.5 – Human capital deepening
20.4	<ul style="list-style-type: none"> • Updated Table 20.5 – Economic Growth
21 Intro	<ul style="list-style-type: none"> • Overhauled introductory narrative to cover COVID-related unemployment (and updated corresponding narrative at end of chapter)
21.1	<ul style="list-style-type: none"> • Updated Figure 21.2 and Table 21.1 on Employment/Unemployment
21.2	<ul style="list-style-type: none"> • Updated Figures 21.3 and 21.4 (and related text) regarding unemployment rates by population • Updated Tables 21.2, 21.3, and 21.4
21.4	<ul style="list-style-type: none"> • Updated Table 21.5 – Unemployment benefits
22.2	<ul style="list-style-type: none"> • Updated Figure 22.2 – Weighing of CPI Components
22.3	<ul style="list-style-type: none"> • Updated Figure 22.3 – Price Level and Inflation Rates • Updated Figures 22.4 and 22.5 on Countries with Low and High Inflation rates
22.4	<ul style="list-style-type: none"> • Updated Figure 22.6 – U.S. Minimum Wage and Inflation • Updated Figure 22.7 – U.S. Inflation Rate and Productivity
22.5	<ul style="list-style-type: none"> • Under Indexing in Govt Programs subsection, updated the income tax categories • Overhauled the Bring it Home narrative regarding the pandemic and subsequent inflation issues. (Note that the material is only updated through mid-2022, so instructors may need to provide more recent inflation context when teaching this material in 2023.)
Chapter 23	<ul style="list-style-type: none"> • Overall updates to data on U.S. Current Account Balance (23.1) and Level and Balance of Trade (23.2)

24 Intro	<ul style="list-style-type: none"> Updated Figure 24.2 – House sale data
24.3	<ul style="list-style-type: none"> At very end of section, added material on shocks to labor markets from recessions, particularly evidenced by the COVID-19 pandemic.
24.6	<ul style="list-style-type: none"> Overhauled the Bring it Home narrative regarding the pandemic and related changes in aggregate demand, mentioning changes in the labor and consumer markets.
25 Intro	<ul style="list-style-type: none"> Updated Figure 25.2 – Real Domestic Product changes
25.4	<ul style="list-style-type: none"> Overhauled the Bring it Home narrative regarding the pandemic and government interventions.
26.1	<ul style="list-style-type: none"> Updated Figure 26.2 – Potential and Actual GDP
26.3	<ul style="list-style-type: none"> Updated second half of Bring It Home narrative to reflect the Neoclassical perspective on the pandemic-influenced economy
27.1	<ul style="list-style-type: none"> Updated Figure 27.1 – M1/M2
27.4	<ul style="list-style-type: none"> Updated Bring It Home narrative to add more context and more recent developments regarding cryptocurrency. (Note that the material is only updated through mid-2022, so instructors may need to provide more recent context regarding crypto market issues and devaluing.)
28.1	<ul style="list-style-type: none"> Updated material on the Federal Reserve Chair to focus on Jerome Powell.
28.4	<ul style="list-style-type: none"> Updated Figure 28.10 – Monetary Policy, Employment, and Inflation Added “Episode 10” to list of Federal Reserve actions At very end of section, added material related to early 2022 Fed actions.
28.5	<ul style="list-style-type: none"> Updated Figure 28.11 – Velocity Calculated
29.1	<ul style="list-style-type: none"> Added significant context and additional example scenario to overview under “Extraordinary Size of Foreign Exchange Markets” Updated Table 29.1 – Currencies Traded Most on Foreign Exchange Markets Updated Figure 29.3 – Strengthen or Appreciate vs. Weaken or Depreciate
29.4	<ul style="list-style-type: none"> Updated Figure 29.11 – U.S. Dollar Exchange Rate in Japanese Yen
30.1	<ul style="list-style-type: none"> Updated Figure 30.2 – Federal Spending 1960-2020 Updated Figure 30.3 – Slices of Federal Spending Updated Figure 30.4 – State and Local Spending
30.2	<ul style="list-style-type: none"> Added brief note regarding universality and impact of taxpaying,

	<p>including reference to the gig economy.</p> <ul style="list-style-type: none"> ● Updated Figure 30.5 – Federal Taxes 1960-2020 ● Updated Figure 30.6 – State and Local Tax Revenue as a Share of GDP
30.3	<ul style="list-style-type: none"> ● Updated Figure 30.7 – Pattern of Federal Deficits and Surpluses ● Updated Figure 30.8 – Federal Debt as a Portion of GDP ● Updated Figure 30.9 – Total Govt Spending and Taxes as a Share of GDP
30.4	<ul style="list-style-type: none"> ● Under “Expansionary Fiscal Policy,” Added an overview of government spending during the pandemic-related recession
30.5	<ul style="list-style-type: none"> ● Updated Figure 30.13 – Comparison of Actual Budget Deficit with Standardized Employment Deficit ● At very end of section, added an overview of the Child Tax Credit
31 Intro	<ul style="list-style-type: none"> ● Updated coverage of student aid measures
31.1	<ul style="list-style-type: none"> ● Updated Figure 31.3 – U.S. Budget, Surplus, and Deficit
31.2	<ul style="list-style-type: none"> ● Updated Figure 31.4 – Budget and Trade Deficits
31.3	<ul style="list-style-type: none"> ● Updated Figure 31.6 – Budget Deficits and Private Savings
31.4	<ul style="list-style-type: none"> ● Updated Figure 31.7 – Budget Deficits/Surpluses and Private Investments ● Updated Table 31.1 – Grants for Major Physical Capital Investment ● Updated Figure 31.9 – Spending for Elementary, Secondary, and Vocational Education ● Overhauled second portion of Bring it Home narrative including updates to the costs of education and the Pell Grant Program
32.1	<ul style="list-style-type: none"> ● Revised World Bank country classifications to reflect the four-level ranking system (splitting middle income into upper- and lower-middle income), as well as updated the quantitative income levels. ● Updated Table 32.1 – World Income Versus Population ● Updated Figure 32.3 – Global GDP and Percent Population ● Updated Table 32.2 – Regional Comparisons of GDP per Capita and Population
32.2	<ul style="list-style-type: none"> ● Updated developments in Japanese economy as a result of expansionary policies ● Updated Figure 32.5 – Lowest Income Countries ● Added passage regarding development economics as a field, and highlighted work and perspective of Dambisa Moyo on the ineffectiveness of foreign aid.

32.3	<ul style="list-style-type: none">• Added passage on W. Arthur Lewis's work regarding the dual-sector economy, and showcase China as an example nation (including the concept that China's reaching the Lewis turning point is disputed)
32.4	<ul style="list-style-type: none">• Changed example of a high-inflation nation to Venezuela (from Zimbabwe)
33.3	<ul style="list-style-type: none">• Updated Tables 33.13 and 33.14 on U.S. Export destinations and Export/Import Quantities
34.1	<ul style="list-style-type: none">• Updated approach and outcomes of Trump administration tariffs on Chinese goods, as well as the pending decisions in the Biden administration on whether to retain them.
34.3	<ul style="list-style-type: none">• Updated example goods and quantities in Anti-Dumping coverage