ECONOMICS

Explore & Apply

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ECONOMICS



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To my former professors -Ron

To Mary
-Bob

ABOUT THE AUTHORS



RONALD M. AYERS

Ronald Ayers is Associate Professor of Economics and Director of the Teaching and Learning Center at the University of Texas, San Antonio. He teaches principles of microeconomics and macroeconomics, as well as the university's core curriculum course in political economy and various field

courses, including labor economics, money and banking, and industrial organization. His classes have ranged from small honors sections to lecture sections of 300.

After receiving Bachelor's and Master's degrees from the University of New Orleans, he subsequently received his Ph.D. in economics from Tulane University. Earlier in his career, Dr. Ayers served as a faculty member at Loyola University (New Orleans), Ohio State University, and Texas A & M University. He has also worked as a consultant for the City of San Antonio and several private consulting firms and attorneys. In recent years he was awarded the President's Distinguished Achievement Award for Core Curriculum Teaching, the College of Business Teaching Award, and the U.T. System Chancellor's Council Teaching Award. He also was named a Senior Fellow, Texas Higher Education Coordinating Board, in 2000. In 2001–2002, Professor Ayers was elected to serve as the Chair of the University's Faculty Senate.

Dr. Ayers has published chapters in *Putting the Invisible Hand to Work: Concepts and Models for Service-Learning in Economics* (University of Michigan Press) and *U.S.-Mexican Economic Relations: Prospects and Problems* (Praeger Publishing Company). In addition, he has published articles in many different journals, including the *National Social Science Journal*, and the *Journal of Urban and Regional Information Systems*. Along with Robert Collinge, Professor Ayers has written *Economics by Design: Principles and Issues*, forthcoming in its third edition. When he is not pursuing his interest in how people learn, Dr. Ayers enjoys spending time with his dogs, collecting books, and tinkering.



ROBERT A. COLLINGE

Robert Collinge is Professor of Economics at the University of Texas, San Antonio. Among other courses at the graduate and undergraduate levels, Dr. Collinge has taught micro principles, macro principles, or the combined survey/issues class in each of his 16 years at UTSA. In the last few years,

Professor Collinge has twice been awarded his University President's Outstanding Achievement Award, once for overall teaching and once for teaching at the core curriculum level. Most recently, he has received his College's Combined Teaching, Research, and Service Excellence Award. Along with Ronald Ayers, Professor Collinge co-directed his University's Center for Economic Education.

After undergraduate studies at the State University of New York at Buffalo, Bob enrolled at the University of Maryland at College Park, where he went on to receive his B.A., M.A., and Ph.D. degrees. In 1982, he joined the Economics faculty at the University of Louisville. To gain experience outside of academia, Dr. Collinge worked in Washington, D.C., first as a Visiting Economist with the U.S. International Trade Commission, and then as an Economist in the Policy Analysis Department of the American Petroleum Institute.

Professor Collinge's research focuses on the design and analysis of public policies, such as his recent articles in the *Journal of Environmental Economics and Management* and the *Canadian Journal of Economics*. He has contributed to an array of other books and journals, including *The Economic Journal, The Journal of Public Economics*, and *World Development*. Professor Collinge currently serves as a member of the editorial board of *Public Works Management and Policy*. In his free time, Bob enjoys hiking through the woods near his Texas Hill Country home.

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PREFACE



A BOOK FOR TODAY'S STUDENTS

Taking your first course in economics can be like finding yourself in a foreign country where you do not know the language. You want the freedom to explore various interesting spots, but you cannot read the street signs for direction and you struggle when trying to communicate with the locals. There may be several different, exciting paths you can choose, but you are not sure which is best. To get your bearings in the country and reach your destinations, you need to learn something about the country's language.

Students in a principles of economics course face many of the same challenges as a wandering traveler. They have registered for the course, but they face the hurdle of learning a new language that includes many new terms and concepts. They also face the challenge of learning how to read and interpret graphs. *Economics: Explore & Apply* was written to help students learn the language of economics. We engage students with familiar real-world examples and applications that bring economics to life. Our goal is to encourage students to apply the concepts they learn in this book to personal, business, and social issues that will face them long after their economics course is over. We teach students how to analyze events in the world around them and draw their own conclusions. To achieve our goal, we implement three key tools:

- 1. Real-world applications
- 2. Sound pedagogy
- 3. Straightforward presentation

REAL-WORLD APPLICATIONS

Principles of economics is often a required course for a variety of majors, since its subject matter relates to so many of life's issues: Should I stay in school, or quit and get a full-time job? Which major should I select? Why does it matter if the Federal Reserve increases or decreases interest rates, or if Microsoft is a monopoly? To help students find the answers to such questions and fulfill the purpose of this course, we emphasize both economic tools and the application of those tools. Many of our applications deal with recent events that underscore the importance of economics, such as: electricity shortages in California; the war on drugs and its associated violence; and budget deficits and the size of the national debt. Such economic issues make it all the more important for students to understand the market economy and the principles that underlie effective public policy.

Explore & Apply

We continually motivate learning and retention of concepts with examples and brief applications throughout this book. Additionally, each chapter concludes with an in-depth Explore & Apply section that drives students to use the economic principles they have just learned. Each Explore & Apply looks at a current issue and places the student in the position of analyzing the issue using the economic tools presented in the chapter. Whether in class or over coffee, debating these policy issues can be both in-



teresting and instructive. The result is that students retain the concepts and are ready to apply them to the many additional issues they will encounter beyond the confines of this textbook and the course.

The Explore & Apply sections include domestic and international topics, and several interweave technology-related issues. Sample topics include:

- What has motivated China to transition toward a market economy?
- What impact does the war on terrorism have on the economy?
- What are the economic implications of unethical business practices?
- How do incentives shape the U.S. healthcare system?

Each Explore & Apply includes two Thinking Critically questions that promote economic reasoning and encourage students to debate a policy issue. A compass icon, located in the chapter-opening learning objectives and various places in the chapter, identifies material and questions related to the Explore & Apply sections. Below are excerpts of narrative, a graph, and

questions from the Chapter 3 Explore & Apply.

To keep the Explore & Apply sections up to date and to strengthen class discussions, we offer two kinds of web support materials at www.prenhall.com/ayers:

the issues at hand. Current statistical information and interviews with professionals and students highlight the various viewpoints on each policy issue. Tips on how to use these videos appear in the book's Instructor's Manual.

- & XPLORE
- -Frederick Douglass, ex-slave and abolitionis "Our schools must be improved!" From kindergarten through the twelfth grade, the educa tion of America's youth is a top concern of both the president and parents. There is less concern, however, about improving colleges; the reasons relate to demand and supply

Some people know the importance of education because they have it. I know the importance of

College students shoulder the high cost of college, with cost playing a major role in col-lege choice. Consistent with the law of demand, the lower the price of a college education, ceteris paribus, the greater the number of students who will apply and the more education they will choose. To promote college education, government offers tax deductions, subsiand financial aid that in effect lowers its price.

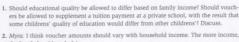
High school seniors choose among a varied assortment of colleges. In lower grades however, there is normally a powerful financial incentive to choose only the government-provided local public school. The reason is that taxpayer financing makes those schools free

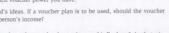


- 1. Updates on each Explore & Apply section and supporting exercises. 2. Ten custom-filmed videos that further explore
- 1 Should educational quality be allowed to differ based on family income? Should youchers be allowed to supplement a tuition payment at a private school, with the result that
- the less help—it's only fair.

 Fred: I think education should be free for everyone. Your income shouldn't have anything to do with how much voucher power you have.
- Evaluate Myra's and Fred's ideas. If a voucher plan is to be used, should the voucher amount depend upon a person's income?

Visit www.prenhall.com/avers for updates and web exercises on this Explore & Apply topic







education because I didn't.



THINKING

RITICALLY

PEDAGOGY

Our pedagogical features support our goal of helping students learn the language of economics and apply what they have learned.

■ Learning Objectives. Each chapter opens with a list of objectives that establishes the goals and organization of the chapter. We repeat these learning objectives and use them as an organizational tool for the end-of-chapter summary. The linking of the learning objectives and summary provides students with a helpful and coherent way to review the concepts

in each chapter. One learning objective per chapter supports the *Explore & Apply* section.

- Snapshots. Students retain economic concepts best when they see how these concepts relate to their immediate world. We include three Snapshots in each chapter to reinforce key concepts that have been presented.
- QuickChecks. Three or more questions with answers interspersed throughout each chapter allow students to check their knowledge of key concepts before moving on.
- Margin Definitions. This running glossary allows students to check their understanding of key terms.
- **Graphs.** Reading and interpreting graphs is a key part of understanding economic concepts. Colors are used consistently to reinforce key concepts. For example, the supply and aggregate supply curves are red, the demand and aggregate demand curves are blue,

and shifts in curves are shown with a different shade. Call-out boxes are inserted into the graphs to help students interpret them. Graph captions are clear and self-contained so that students can understand how and why curves are shifting.

- Extensive Array of End-of-Chapter Pedagogy. Each chapter ends with a wide array of summary and self-test materials that appeal to a variety of teaching and learning styles:
 - **Summary and Learning Objectives** summarize the key points of the chapter and tie those points back to the learning objectives that opened the chapter.
 - **Key Terms List** gives students an opportunity to review the concepts they have learned in the chapter. A page reference is included next to

each term so that students can easily locate the definitions.

Test Yourself questions in true/false and multiple-choice formats give students self-assessment opportunities and support the *Explore & Apply* section. Solutions appear at the end of the book.

Questions and Problems are annotated by topic. The annotation appears before each question and problem so that instructors can easily make assignment choices. Solutions to even-numbered items appear in the back of the book. All solutions appear in the instructor's manual.

Web Support Materials encourage students to visit www.prenhall.com/ayers to access more self-test quizzes, Exploring the Web exercises, news articles, and much more.



COMPETING WITH COMPARATIVE ADVANTAGE



Many great athletes are multitalented, possessing strength, speed, and muscle coordination that dwarf that of the general population. These qualities are needed for success in a variety of sports, yet few athletes play more than one sport professionally, even though they might be able to do so. Simply look at the sports pages. Venus Williams makes headlines by swinging a tennis racket, while Tiger Woods swings a golf club and Barry Bonds swings a bat. Their choices tell the rest of us about their comparative advantages.

The best teams exploit the comparative advantages of their players. Each player has a job to do and specializes in doing it well. Whatever the sport, owners and fans expect this principle of comparative advantage to be followed and demand coaches who will best exploit the talents of their players. But even the best coaches can err, as when Cleveland Indians' baseball coach This Speaker said in 1921, "Babe Ruth made a great mistake when he gave up pitching. Working once a week, he might have lasted a long time and become a great star." 4

QUICKCHECK

List three cases in which shifts in demand and/or supply would result in a lower price and a greater quantity.

Answer: One case occurs when supply shifts to the right and demand does not change. A second case is when both supply and demand both shift to the right, but the shift in supply is larger. A third case is when supply shifts right and demand shifts left, with the shift in supply being larger than the shift in demand. These cases are shown in Figures 3-10, 3-10, b) and 3-12. respectively.

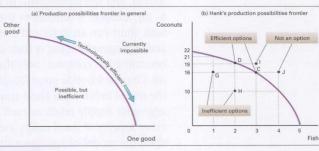


FIGURE 2-3

POSSIBILITIES FOR EFFICIENCY All points on the production possibilities frontier are output combinations that are bennologically efficient and feasible, as shown in (a). Points within the production possibilities frontier are also feasible, but are not efficient. Points outside the frontier cannot be reached with current leave used and feat-honders.

For example, (b) shows Hank's production possibilities on Castaway Island. On this graph, point G represents 16 coconuts and 1 fish. That combination of outputs is possible, but Hank could do better at point D by producing 19 coconuts and Z fish. Likewise, point C is more efficient than point H. Both C and D are efficient in a technological sense, mensing that at either point, Hank cannot produce more of one good without giving up some of the other. Hank would like to achieve points I or J, but does not have the resources and technology to do Hank would like to achieve points I or J, but does not have the resources and technology to do.



STRAIGHTFORWARD PRESENTATION

One of the most frequent complaints about many existing textbooks is that they offer more material than can be covered adequately during the term. *Economics: Explore & Apply* responds to this concern by covering essential concepts without bogging down the reader in too much detail. The book accomplishes this objective by emphasizing the intuition of economics and focusing on those concepts that are at the heart of economics analysis. The result is a 29-chapter book that can easily be read and taught from with an ample but not excessive read amount of material.

MACROECONOMICS ORGANIZATION

Economics: Explore & Apply is available in three separate volumes. A combined volume includes the topics of macroeconomics and microeconomics. Split volumes are also available for those who teach either macroeconomics or microeconomics. Please see the Alternative Sequences chart on preface page xxx. Common to all three volumes is Part 1, "A Journey Through the Economy" (Chapters 1–4), which covers the goals of economics, various economic systems, production possibilities, comparative advantage, demand and supply, market efficiency, and price controls.

The macroeconomics portion of *Economics: Explore & Apply* is flexible enough to be used by those who favor a short-run emphasis or a long-run emphasis. For example, we have isolated the income–expenditure model (Keynesian cross) in Chapter 10, "Aggregate Expenditures," so that instructors who do not cover this model can easily skip the chapter without loss of continuity.

Part 2, "Monitoring the Macroeconomy" (Chapters 5-7), covers GDP measurement, inflation, and unemployment. In Part 3, "Aggregate Supply and Aggregate Demand" (Chapters 8-10), Chapter 8 introduces the two primary schools of macro thought, associating Keynes with short-run analysis and classical with long-run analysis. The model of aggregate supply and aggregate demand is then introduced as a framework for analysis. To keep matters from becoming too complex, only the long-run aggregate supply curve is introduced in this chapter. Chapter 9 builds upon Chapter 8 by introducing the short-run aggregate supply curve and the issues involved in short-run analysis. Chapter 9 emphasizes how short-run and long-run aggregate supply relate to each other and to aggregate demand. Issues of deficits, debt, and other aspects of fiscal policy are introduced in this framework. Chapter 10 further elaborates upon the model of aggregate supply and aggregate demand by examining the Keynesian aggregate expenditures model that underlies the aggregate demand curve. Part 4, "Incentives for Productivity" (Chapters 11-12), covers issues related to implementing fiscal policy and how incentives for growth are strongly influenced by the specifics of government fiscal policy design. Part 5, "Money and Monetary Policy" (Chapters 13-14), covers money, the Fed, and the logic behind Fed policy actions. These topics are positioned so as not to disrupt the step-by-step building process found in Chapters 8 through 12.

MICROECONOMICS

Our microeconomics chapters follow the traditional layout that has for many years served economics students well. We emphasize incentives and choice, the foundations for a vibrant market economy.

Part 6, "Microeconomic Foundations" (Chapters 15–18), covers elasticity, consumer behavior, and how firms make production decisions. Part 7, "Output Markets" (Chapters 19–21), cover the market structures of pure competition, monopoly, oligopoly, and monopolistic competition. Part 8, "Input Markets" (Chapters 22–23), shows that input markets also have their structures, with the labor market of particular significance to our earnings. Mar-

ket economies sometimes fail to produce the goods we value and other times send price signals that misguide our choices. In *Part 9*, "Market Failure and Government Action" (Chapters 24–26), we show that government actions can help remedy market failures, but those actions often have failures of their own. We include a full chapter on public choice to emphasize the economic significance of incentives within government.

THE GLOBAL ECONOMY

Whether it be economic incentives in China, the multinational nature of the work force, or treaties on the global environment, international economic issues are integrated throughout the book. Furthermore, they appear in many of the *Explore & Apply* sections, Snapshots, and comparative tables and figures. Our book concludes by looking at the global marketplace. In Chapter 27, "Into the International Marketplace," and Chapter 28, "Policy Toward Trade," we examine the balance of payments, exchange rates, free-trade agreements, and arguments for trade restrictions. In Chapter 29, "Economic Development," we study the forces that can lead some countries to develop strong economies and other countries to stagnate.

CURRENCY AND ACCURACY

At all times, we strive for currency of content. Graphs and tables include the most recent data available. Throughout the book, we apply economic analysis to genuinely current issues—the ones that appear in headlines today and promise to continue making headlines in years to come. We will also keep the *Explore & Apply* sections current via the book's web site.

Economics: Explore & Apply was developed based on our forty years' combined experience teaching the principles of economics course, as well as the input of approximately 100 professors. We realize the extreme importance of accurate graphs, equations, questions and problems, and solutions. To ensure the highest level of accuracy, we carefully and painstakingly evaluated each chapter and also formed an Accuracy Review Board of four economics professors who checked every word, number, equation, and figure in the book. The board members were Paul Comolli, University of Kansas; Barry Kotlove, Edmonds Community College; Matthew Marlin, Duquesne University; and Garvin Smith, Daytona Beach Community College. The supplement package was checked for accuracy by Warren Bilotta, Louisiana State University, Alexandria; Jack Bucco, Austin Community College; Ronald Elkins, Central Washington University; Jeff Holt, Tulsa Community College; and John C. Wassom, Western Kentucky University.

SUPPLEMENTS ADVISOR AND COORDINATOR

We understand how important it is for instructors to have a supplement package that is comprehensive, coordinated with the main text, and easy to use. Professor Mary Lesser of Iona College, who has taught the principles of economics course for 20 years, served as the advisor and coordinator for the extensive print and technology supplement packet that accompanies *Economics: Explore & Apply*. Professor Lesser ensured that each supplement, including the test banks, instructor's manuals, study guides, and PowerPoint presentations met the highest standards of quality. Her script ideas and overall direction on the *Explore & Apply* custom-video series helped the film crew focus on topics that resonate with today's students. She also helped develop many of the media supplements, including the *Explore & Apply* Active Book.

PRINT SUPPLEMENTS

Economics: Explore & Apply has a comprehensive supplements package that is coordinated with the main text through the numbering system of the headings in each chapter. The



major sections of the chapters are numbered (1.1, 1.2, 1.3, and so on), and that numbering system is used consistently in the supplements to make it more convenient and flexible for instructors to develop their course assignments.

Study Guides

The authors have personally prepared the comprehensive study guides that accompany the text. Tied directly to sections of the text, the study guides enhances and reinforces economic concepts for increased student comprehension. Each chapter of the study guide includes approximately 90 questions. Each chapter features the following elements:

- **Chapter Reviews.** A comprehensive summary of the key concepts of the chapter, including the *Explore & Apply* sections.
- StudyChecks. These problems are included throughout the Chapter Review for quick practice with the concepts just covered.
- Self Tests. 25 true/false/explain, 25 fill in the blanks, 25 multiple choice, and up to 5 grasping the graphs give students an opportunity to test their knowledge and label and analyze key graphs from the book.
- Part Exams. Ten multiple choice part exams test students' cummulative comprehension over several chapters.
- **Solutions.** Detailed answers to all study guide questions.

Instructor's Manuals

Two instructor's manuals, *Macroeconomics* and *Microeconomics*, written by Rose LaMont of Modesto Junior College and Peter Mavrokordatos of Tarrant County College, provide the following teaching support materials:

- **Exercises** to use in the classroom.
- Sample Syllabi
- **Solutions** to all problems in the book.
- **Video Guide** to help integrate the *Explore & Apply* videos into the classroom.

Test Banks

Four test banks—two for microeconomics and two for macroeconomics—were prepared by Scott Hunt of Columbus State Community College, Richard Gosselin of Houston Community College, Andrew Dane of Angelo State University, and Kathy Wilson of Kent State University. The test banks include *over 10,000 questions*, organized by chapter section. Each question is keyed by degree of difficulty as easy, moderate, or difficult. *Easy* questions involve straightforward recall of information in the text. *Moderate* questions require some analysis on the student's part. *Difficult* questions usually entail more complex analysis. To help instructors select questions quickly and efficiently, we have used the skill descriptors of fact, definition, conceptual, and analytical. A question labeled *fact* tests a student's knowledge of factual information presented in the text. A *definition* question asks the student to define an economic term or concept. *Conceptual* questions test a student's understanding of a concept. *Analytical* questions require the student to apply an analytical procedure to answer the question.

The test banks include questions with tables that provide students with the numbers that they need to use in solving for numerical answers. They also contains questions based on the graphs that appear in the book. The questions ask students to interpret the information presented in the graph. There are also many questions in the test banks that require students to sketch out a graph on their own and interpret curve movements. Test bank questions also support the *Explore & Apply* sections.

Color Transparencies

All figures and tables from the text are reproduced as full-page, four-color acetates.

INTERNET RESOURCES

Prentice Hall's Internet Resources provide students with a variety of interactive graphing and self-assessment tools. It also supplies numerous current news articles and supporting exercises.

Companion Website http://www.prenhall.com/ayers

The Companion Website connects students to Current Events economics articles in the news, *Explore & Apply* updates, Exploring the Web exercises and activities, and Practice Quizzes that include many graphs from the text. The Practice Quizzes were prepared by Fernando Quijano and Yvonn Quijano. These quizzes provide immediate feedback for correct answers, and let students e-mail results to their professors.

For Instructors

- Syllabus Manager. This feature allows instructors to enhance their lectures with all the resources available with this text. Instructors can post their own syllabus and link to any of the material on the site.
- **Downloadable Supplements.** These features allow instructors to access the book's PowerPoint presentations and Instructor's Manual. Please contact your Prentice Hall sales representative for password information.

Companion Website PLUS for Instructors and Students

Available by using the access code packaged with every new text, Companion Website PLUS uses all of the content of the Companion Website listed previously and the following other interactive resources:

- Active Graphs. Seventy Active Graphs support key graphs in the text. These JAVA applications invite students to change the value of variables and curves and see the effects in the movement of the graph.
- Smart Graphs. Thirty-five Smart Graphs ask students to modify graphs based on an economic scenario and questions. Students receive an instant response detailing how they should have changed the graph.
- Animated Graphing Tutorial with Audio. Guides the student through a multimedia version of Chapter 1 Appendix: "Working with Graphs and Data."
- Egraph and Graphing Questions. This electronic tool allows students to create precise, colorful graphs, using Flash technology. Students can e-mail these graphs to their professor or print and save them. To apply this technology, we have included *Graphing Questions* that require students to analyze information gathered on the Web, then create graphs using the Graphing Tool. Complete answers, with graphs, are included. The *Graphing Questions* were prepared by Leonie L. Stone of the State University of New York at Geneseo.
- Explore & Apply Video Series. A series of ten custom-filmed videos support the Explore & Apply sections. The videos dig deeper into the issue presented in each chapter and highlight various viewpoints of the policy issue being discussed. Each video includes interviews with professionals and students. A guide to using the videos is included in the Instructor's Manual and provides summaries, lecture tips, discussion questions, and exercises.

ONLINE COURSE OFFERINGS

To accommodate various teaching styles, we offer a complete range of technology-support materials.



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TECHNOLOGY SUPPLEMENTS FOR THE INSTRUCTOR

The following technology supplements are designed to make teaching and testing easy.

TestGen-EQ Test-Generating Software

The test banks appear in print and as computer files that may be used with the TestGen-EQ test-generating software. This computerized package allows instructors to customize classroom tests. Instructors may edit, add, or delete questions from the test banks; edit existing graphics and create new graphics; analyze test results; and organize a database of tests and student results. This new software allows for flexibility and ease of use. It provides many options for organizing and displaying tests, along with a search and sort feature. *Economics: Explore & Apply* is supported by a comprehensive set of four test-item files with over 10,000 questions. These test-item files are described in detail under the "Print Supplements" section of this preface.

PowerPoint Lecture Presentations

The PowerPoint presentations, by Paul Harris of Camden County College, offer summaries and reinforcement of key text material. Many graphs "build" over a sequencing of slides so that students may see the step-by-step process of economic analysis. Instructors can create full-color, professional-looking presentations and customized handouts for students. The

PowerPoint presentations are included in the Instructor's Resource CD-ROM and are downloadable from www.prenhall.com/ayers.

Explore & Apply Videos on VHS Cassette

A series of ten custom-filmed videos support the *Explore & Apply* sections. The videos dig deeper into the issue presented in each chapter and highlight various viewpoints of the policy issue being discussed. Each video includes interviews with professionals and students. A guide to using the videos is included in the Instructor's Manual, which provides summaries, lecture tips, discussion questions, and exercises. The videos are available to instructors on VHS cassette and on the Instructor's Resource CD-ROM. They will also be posted on the book's web site at www.prenhall.com/ayers.

Instructor's Resource CD-ROM

The Instructor's Resource CD-ROM allows instructors to easily access and edit the instructor's manual, test banks, and PowerPoint presentations. The *Explore & Apply* custom videos are also included.

SUBSCRIPTIONS: WALL STREET JOURNAL, FINANCIAL TIMES, AND ECONOMIST.COM

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