

SPELMAN COLLEGE
Economics 316 (CRN # 92057), Intermediate Macroeconomic Theory, Cosby LL 31
Monday and Wednesday, 3:00 PM to 4:15 PM
Professor: Dr. Angelino C. G. Viceisza

OFFICE HOURS AND CONTACT INFORMATION

Office Hours: Monday, 11:30 AM to 2:30 PM; Wednesday, 1:30 PM to 2:30 PM; by appointment

Office Location: Department of Economics, Giles Hall, Room 402 (4th floor)

Office Phone: 404-270-6055 (please use email; more below)

Course website: Please check Moodle. *In absence thereof, I will make use of email and/or twitter.*

Personal research website: <https://sites.google.com/site/viceisza/>

Default email: aviceisz@spelman.edu; Back-up email only: viceisza@gmail.com

Twitter: @aviceisza #viceisza (follow me for last-minute updates, research opportunities, scholarships, etc.)

Note: I am usually accessible via email to respond to simple questions or quick consultations. If an issue warrants discussion in person, I will refer you to my office hours. This will usually be the case for issues related to course performance. If using email, please include ECON 316 in the subject line.

REQUIRED TEXT

Abel, Andrew B., Ben S. Bernanke, and Dean Croushore, *Macroeconomics*, 9th Edition. New Jersey: Pearson, 2017. *Also see suggested readings at the end of the syllabus, particularly as you work on the research paper.*

COURSE DESCRIPTION

This course begins with a review of strategic conceptual, measurement and methodological concerns which establish a basis for an in-depth investigation of the macroeconomy's behavior from several perspectives. Secondly, this course will examine the macroeconomy's long-run performance with respect to theories explaining the role of labor, saving, consumption, financial assets and innovation as markets contributing to an economy's capacity for economic growth. Thirdly, this course will consider, in some theoretical and empirical detail, the short-run performance of the macroeconomy from the vantage point of business cycle analysis, the IS-LM/AD-AS model and the Keynesian model of wage/price rigidity. In so doing, it will consider classical, Keynesian, as well as new classical and new Keynesian views of the macroeconomy (including so-called real-business cycle models). Fourthly, this course will address macroeconomic (i.e. monetary and fiscal) policy concerns from an international and institutional perspective. Finally, this course should inform the student about the conundrum facing both economist and policy maker when a severe economic contraction induces a tradeoff between short-run macroeconomic recovery and long-term economic growth. In so doing, the course seeks to build modeling and technical skills (e.g. use of multivariate calculus and constrained optimization) that prepare the student for the next stage of macroeconomic study at the graduate level.

PREREQUISITES

Economics 241, Economics 242, and Economics 203 all with a grade of at least C are required to take this course. The student must withdraw from this course if the student has not completed these prerequisites or has not received approval from the Professor. Failure to withdraw from the course will result in the student being administratively withdrawn from or denied access to the course when this information is discovered. It is strongly recommended that the student also complete Economics 303 (Econometrics) before enrolling in this course given expectations associated with specific assignments such as the research paper.

BEHAVIORAL OBJECTIVES

Upon completion of this course, the student should be able to:

1. Distinguish between micro and macroeconomics and explain how they are related.
2. Identify, define, and calculate main macroeconomic variables; e.g. GDP, unemployment, inflation.
3. Explain the basic tenets of classical, Keynesian, new classical, and new Keynesian economics.
4. Derive the production function, the classical labor demand curve, and the classical labor supply curve.
5. Graph and explain equilibria in labor, goods, and money/asset markets.
6. Define unemployment, calculate related variables, and explain Okun's Law.
7. Explain and derive key macroeconomic models such as the Solow growth model, the IS-LM model, AD-AS model, and real-business cycle models.
8. Explain, recognize, and/or derive the Phillips curve and so-called Lucas critique.
9. Use these models to conduct macroeconomic analysis; e.g. assessing the role of fiscal/monetary policy.
10. Explain the endogenous growth hypothesis and its macroeconomic policy implications.
11. Explain the logic of growth accounting and its use to explain growth rate behavior.
12. Graphically as well as mathematically derive/prove some of the above concepts using tools from (multivariate) calculus.
13. Understand the differences between cross-sectional, time series, and panel data and their relevance for empirical macroeconomic analysis such as cross-country growth regressions.

JUSTIFICATION FOR FOUR CREDITS

This is a four-credit, three-contact-hour course. To justify the additional credit, the student will be required to do the following outside of class:

1. Read book chapters and materials *prior to class* (see course outline).
2. Complete take-home quizzes (typically, retroactive based on material discussed in class).
3. Complete a research paper.

COURSE GRADING

The course grade will be determined by:

Two (2) exams	30% (15% each)
One (1) comprehensive final exam	30%
Quizzes	15% (six out of eight: 2.5% each)
Research paper	15%
Attendance and participation	10% (7.5% for attendance; 2.5% for participation)

The following grading scale will be employed:

Percentage Earned	Grade Earned	Percentage Earned	Grade Earned
93 – 100	A	70 – 74	C
90 – 92	A-	65 – 69	C-
87 – 89	B+	62 – 64	D+
83 – 86	B	58 – 61	D
79 – 82	B-	below 57	F
75 – 78	C+		

Note: (1) The above scale should be regarded as approximate as the instructor reserves the right to make adjustments in awarding final grades. (2) I typically grade exams with a “bump”.

QUIZZES

Quizzes will open at 4:00 PM of a given day and close at 11:59 PM of the day after. So, a student will have 32 hours to complete a quiz. The dates listed in the course outline are **due dates**. Quizzes will be completed on/submitted via Moodle and close at midnight. This means that the student's submission should be complete by 11:59 PM of **the stated due date**. **The student should plan accordingly since late submissions will receive a zero (0)**. Please avoid losing points in an unnecessary manner by starting the quiz on time.

RESEARCH PAPER

The research paper (RP) should be based on a carefully developed research question that if properly executed in the medium run can lead to an independent study or senior thesis and in the long run can lead to a peer-reviewed journal article. *See rubric and notes at the end of the syllabus for additional expectations.* The RP should comprise the following components (excluding appendices such as references, tables, and figures/graphs):

- 1) A title page with author name(s) [in alphabetical order] followed by an abstract with keywords.
- 2) An introduction covering (2 pages):
 - a. The main research question
 - b. A review of the literature and the contribution of the particular research question
 - c. The organization of the proposal
- 3) A theoretical model or conceptual framework covering (2 pages):
 - a. The model setup and derivations
 - b. The testable hypotheses derived from this model
 - i. Note that in economics, a “model” typically means a conceptual framework that can be used to explain or predict what we observe in the real world. It is usually some text and math (possibly supported by graphs). We will see examples as we progress through the course, but to get a sense of economic models early on you should take a look at articles published in reputable economics journals (see end of syllabus for some citations).
 - ii. An example of an economic model you are familiar with is that of utility maximization. For example, let apples be x_1 and oranges be x_2 , and the price of apples and oranges be p_1 and p_2 respectively. A consumer's utility over apples and oranges can be expressed as $U(x_1, x_2)$. The typical utility maximization model says that this consumer will:
$$\max_{\{x_1, x_2\}} U(x_1, x_2) \text{ s.t. } p_1 x_1 + p_2 x_2 = m$$
where the latter represents a budget constraint and m is her/his/... money budget, e.g. from wages. This theoretical model leads to predictions about the optimal amount of apples $x_1^*(p_1, p_2, m)$ and oranges $x_2^*(p_1, p_2, m)$ this consumer will “choose” in order to maximize utility given a set of prices and budget. This is a “testable prediction” (aka hypothesis) from a theoretical model that can in turn be tested using real-world data for many consumers (aka an empirical model). *See next item.*
- 4) An empirical section covering (5 pages):
 - a. An empirical (i.e. regression) model that is informed by the aforementioned theoretical model.
 - b. A discussion of the data and sources used to construct variables for this empirical model.
 - c. A clear discussion of the results.
- 5) A conclusion covering (1 page):
 - a. The main conclusions and policy implications resulting from the research.
 - b. Next steps for this and other research moving forward.

Notes:

1. The RP will pass two stages of review (Stage 1 and 2) prior to being submitted for final grading/Stage 3 (see course outline for due dates). Stages 1, 2, 3 count for 1%, 4%, 10% of your grade respectively.
2. You are allowed to work in groups of up to three people. If you choose to work in a group, please note:

- a. You are responsible for choosing your group members and communicating those to me by Stage 1 of the RP. *All group member names should be listed in all submissions in alphabetical order.*
 - b. It is your responsibility to ensure that your group functions properly. I.e. it is up to you to divide the work and ensure that (1) there is no freeriding and (2) submissions occur ON TIME.
 - c. You should designate one of your group members to be the “Communications liaison”. This person will be responsible for submitting the group’s work on Moodle. If this person does NOT submit ON TIME, the whole group will suffer (see below).
 - d. All group members will receive the exact same grade regardless of the circumstances.
 - e. All group members must be present during office hours for any consultation meetings.
 - f. All group members must be copied when contacting me via email regarding any RP issues.
3. The RP must be on a macroeconomic topic, please read chapter 1 of the text carefully to assess what constitutes macroeconomic subject matter. A microeconomic topic about the determinants in crime in major U.S. cities is certainly research worthy; however, it is not a macroeconomic topic. The impact of national rates of incarceration on the aggregate unemployment rate is a macroeconomic topic. Please discuss with me further during office hours. I reserve the right to reject a research question after Stage 1.

FORMATTING

All written documentation (in particular, the different stages of the research proposal and the referee report) should be in Times New Roman 11 point font with 1.5 spacing and 1 inch margins all around. **ANY FILES THAT ARE UPLOADED TO MOODLE SHOULD BE LESS THAN 2 MB.**

MAKE-UP POLICIES AND EXTRA CREDIT

1. **REGULAR EXAMS:** There are absolutely **NO** make-up exams, whether the absence is excused or not. In case an absence is excused by the Office of the Dean within a week of the missed exam date, I reserve the right to prorate the weight of the missed exam over the remaining exams.
2. **FINAL EXAM:** The final exam absolutely **CANNOT** be made up. If a student misses the final exam, the student will receive a zero (0) for the exam. An exception **may** be made if a student seeks approval from me **PRIOR** to the exam by providing a valid documented excuse approved by the Office of the Dean. Even in this case, I still reserve the right to deny the student’s request.
3. **QUIZZES:** There are absolutely **NO** make-up quizzes, whether the absence is excused or not. I will drop the two (2) lowest quiz grades when determining the student’s overall grade. For example, if a student misses two quizzes, the student will receive a zero (0) but those will be dropped.
4. **RP:** These components absolutely **CANNOT** be made up, whether excused or not. If a student or group misses them, the student/members will receive a zero (0).
5. **TARDINESS:** Late submissions will **NOT** be accepted. They will receive a zero (0).
6. **EXTRA CREDIT:** It is my experience that most students fail to submit all possible assignments. As such, it does not make economic sense to give opportunities for extra credit since students are not making use of the opportunities already afforded to them. So, I will **NOT** give extra credit, regardless of the student’s circumstances.

THERE ARE NO EXCEPTIONS TO ANY OF THESE RULES.

ACCESS TO EXAMS

Exams in this course are not permitted to enter “the public domain”. Although there is no obligation to allow the student to review exams after they have been reviewed in class and collected, if a student wishes to review an exam, I will typically accommodate the student during office hours.

ATTENDANCE AND PARTICIPATION POLICY

Class attendance and participation are mandatory, as these are integral parts of the class. *As such, 10% of your class grade comes from these components.* Please note the following:

1. Attendance is taken at the beginning of each class.
2. For students who have the habit of arriving after the class begins (late arrival), I reserve the right to count late arrivals as absences. The student is considered late if the student is not present when class begins. I typically count tardiness as an absence if the student arrives after I finished taking attendance. In case of excessive lateness (ten minutes after class begins), I reserve the right to bar a student from entering the classroom.
3. If a student misses zero (0, no) classes, the student receives 100 for the attendance portion of the grade. If a student misses one (1) unexcused class, the student receives 95 for attendance. If a student misses two (2) unexcused classes, the student receives 90 for attendance. Any student with three (3) or more unexcused absences will receive a zero (0) for attendance. *This means that this student loses 7.5% of the course grade.*
4. **Any student with five (5) or more absences (excused or unexcused) will be administratively withdrawn from the course. I will email the student a notification and proceed by processing such withdrawal through the Offices of the Dean of Undergraduate Studies and the Registrar.**
5. Class participation will be judged based on thoughtful questions and discussions **and** lack of disruptive behavior during class (see General Code of Conduct section of this syllabus). In particular, if a student uses a cell phone during class (without my permission), the student will receive a zero (0) for the participation portion of the grade. *This means that this student loses 2.5% of the course grade.*
THERE ARE NO EXCEPTIONS TO ANY OF THESE RULES.

ACADEMIC INTEGRITY

The following is Spelman College's **Academic Integrity Policy**:

“At the heart of Spelman College’s mission is academic excellence, along with the development of intellectual, ethical and leadership qualities. These goals can only flourish in an institutional environment where every member of the College affirms honesty, trust, and mutual respect. All members of the academic community of Spelman College are expected to understand and follow the basic standards of honesty and integrity, upholding a commitment to high ethical standards. Students are expected to read and abide by the Spelman College Code of Conduct (see the Spelman College Student Handbook) and are expected to behave as mature and responsible members of the Spelman College academic community. Students are expected to follow ethical standards in their personal conduct and in their behavior towards other members of the community. They are expected to observe basic honesty in their work, words, ideas, and actions. Failure to do so is a violation of the Spelman College Academic Integrity Policy.”

Violators will be subject to the sanctions outlined in the Spelman College Bulletin.

GENERAL CODE OF CONDUCT (INCLUDING TECHNOLOGY AND CELL PHONE USE POLICY)

It is understood that any student participating in this course will show conduct in a manner that is constructive and non-disruptive to the learning environment. This is out of mutual respect for the professor as well as fellow students.

With this in mind, use of any form of technology—including computers and cell phones—is only allowed if it is absolutely necessary for the student’s learning within the course. If so, the student should see me by the end of the first day of class to discuss and potentially obtain permission to use such a technology. Even if granted, I still

reserve the right to revoke this privilege if I note in a future class that such technology is being used for purposes other than learning related to the course.

In the absence of such permission, use of technologies is strictly prohibited unless the professor explicitly requests the students to use such technologies. The student should turn off cell phones, laptops, tablets, or any other noise-making devices while in class as these can generally be considered disruptive. Any such disturbances will result in automatic eviction from class. NO EXCEPTIONS!!!

DISABILITY STATEMENT

The following is Spelman College's **Disability Statement**:

“Spelman College is committed to ensuring the full participation of all students in its programs. If you have a documented disability (or think you may have a disability) and, as a result, need a reasonable accommodation to participate in class, complete course requirements, or benefit from the College's programs or services, you should contact the Office of Disability Services (ODS) as soon as possible. To receive any academic accommodation, you must be appropriately registered with ODS. The ODS works with students confidentially and does not disclose any disability-related information without their permission. ODS serves as a clearinghouse on disability issues and works in partnership with faculty and all other student service offices. For further information about services for students with disabilities, please contact the ODS at 404-270-5289 (voice), located in MacVicar Hall, Room 106.”

CENTER FOR ACADEMIC PLANNING AND SUCCESS (CAPS)

The Spelman College Center for Academic Planning and Success (see <http://www.spelman.edu/academics/caps>) is located in the Milligan Building, 2nd floor. The Center provides peer tutors for various subject areas, including economics. The schedule of times when peer tutors will be available can be acquired from the Center. This is a valuable resource for student learning and students are urged to avail themselves of the Center. Peer tutors have previously been very successful students in the course.

GENERAL REMARKS

1. Students are expected to plan their air travel at the end of the semester so that it does not conflict with the final exam. The same applies to other types of travel throughout the semester.
2. Students should select a “buddy” in the course from whom they can obtain materials in case they miss class. It is the student's responsibility to obtain such material and stay up to speed.
3. The syllabus provides a general plan for the course; deviations may be necessary.

COURSE OUTLINE

Date	Topic	Quizzes or Notes	Stage of RP
8/16	Syllabus and introduction		
8/21	Chapter 1, Technical basics	Quiz 1 assigned and due 8/22	
8/23	Chapter 2		
8/28	Chapter 3		
8/30	Chapter 3	Quiz 2 assigned and due 9/1	
<u>9/4: NO CLASS due to Labor Day</u>			
9/6	Chapter 4		1 st draft of RP due 9/6
9/11	Chapter 4		
9/13	Chapter 5	Quiz 3 assigned and due 9/14	
9/18	Chapter 5, 6		
9/20	Chapter 6		
9/25	Chapter 6	Quiz 4 assigned and due 9/26	
<u>9/27: Exam 1 (all material up to now)</u>			
10/2	Chapter 7		
10/4	Chapter 7		
<u>10/9, 10/11: NO CLASS due to Fall Break – NOTE: 2nd draft of RP due 10/15</u>			
10/16	Chapter 8		
10/18	Chapter 8	Quiz 5 assigned and due 10/19	
10/20: Midterm grades submitted			
10/23	Chapter 9		
10/25	Chapter 9		
10/27: Last day to withdraw with a “W”			
10/30	Chapter 10		
11/1	Chapter 10	Quiz 6 assigned and due 11/2	
11/6	Chapter 11		
11/8	Chapter 11		
<u>11/13: Exam 2 (all material between Exams 1 and 2)</u>			
11/15	Chapter 12	Quiz 7 assigned and due 11/16	
<u>11/20, 11/22 NO CLASS DUE TO THANKSGIVING</u>			
11/27	Chapter 12 and select topics		Final draft of RP due 11/27
11/29	Final Class (Review)	Quiz 8 assigned and due 11/30	
<u>COMPREHENSIVE FINAL EXAM DURING THE WEEK OF DEC 4-8 (TBA)</u>			

TYPICAL GRADING RUBRIC FOR THE RP

Rank	Content Quality	Quality of Written Exposition	Approximate score
Excellent	The paper is technically strong in that it comprises (1) an excellent literature review, (2) a well-developed theoretical model, (3) a clear empirical strategy and results testing the hypotheses derived from 2, (4) a discussion of conclusions and policy implications, and (5) a discussion of ways forward.	The paper is written in an academic manner, following typical standards observed in the literature. This applies both to the use of the English language (grammar, spelling, and so on), but also to the use of mathematical notation. Notation needs to be used as appropriate and be properly defined. The student should use academic articles in top peer-reviewed journals as a guide (see course reading list for examples of such articles as well as advice provided further below).	90-100
Very Good	The paper is strong in categories (1), (2), (3), and (5), but is weak in category (4).	The paper uses notation inappropriately.	85-89
Good	The paper is strong in categories (1), (2), and (3), but is weak in categories (4) and (5).	The paper uses notation inappropriately and does not necessarily read as an academic article.	80-84
Fair	The paper is weak in any of the categories (1), (2), or (3).	Same as former.	75-79
Limited	The paper is weak in one or more of the categories (1), (2), and (3).	Same as former.	70-74
Weak	The paper is weak in all categories.	Same as former.	69 and below

Other tips/issues for consideration for the RP:

1. It is imperative that you start with a proper research question that is informed by and sufficiently different from prior literature.
2. Generally, references must come from a reputable source; e.g. journal articles or working papers from www.nber.org. Discuss with me during office hours to get insights into additional references.
3. Use the journal articles or academic working papers on the syllabus as a guide for what your RP should look like.
4. Make sure to differentiate clearly between a theoretical model and an empirical model (i.e. what you are used to in econometrics). Your theoretical model informs the latter, but they are not the same.
5. Bear in mind that a theoretical model is important because it gives a framework for formally deriving hypotheses, which in turn can be tested using real-world data. These data can come from some combination of:
 - Survey and administrative data (e.g. Census, FRED, CES) – most likely in this course.
 - Experiments (lab and/or field).
 - These data can be primary in that you will design the instruments and collect them or secondary in that they already exist (because someone else collected them) and you will obtain access/use them for your purposes. In this course, you will most likely rely on secondary data.

SNAPSHOT OF SUGGESTED, RELEVANT READINGS (ALPHABETICAL ORDER)

The following list of readings is suggested as you go through the book chapters and related material. It is particularly relevant as you formulate your question for the RP and review related literature. As stated above, the National Bureau of Economic Research Working Paper series (see www.nber.org) is another great resource for cutting-edge research on a range of topics, in particular macroeconomics. Additional journals you may want to consult are: *American Economic Review*, *American Economic Journal: Macroeconomics*, *Econometrica*, *Journal of Economic Dynamics and Control*, *Journal of Monetary Economics*, *Journal of Political Economy*, *NBER Macroeconomics Annual*, *Quarterly Journal of Economics*, *Review of Economics and Statistics*, and *Review of Economic Studies*.

1. Aliprantis, Dionissi, Timothy Dunne, and Kyle Fee. 2011. "The Growing Difference in College Attainment Between Women and Men." *Economic Commentary* 21, Federal Reserve Bank of Cleveland.
2. Ameral, Pedro. 2012. "Technology Shocks and Unemployment in the Last Recession." *Economic Commentary* 7, Federal Reserve Bank of Cleveland.
3. Borsi, Mihaly. 2016. "Credit Contractions and Unemployment." Working Paper. <https://sites.google.com/site/borsimihaly/home/research>
4. Clement, Douglas. 2010. "Awash in Cash." *The Region* 24(2), Federal Reserve Bank of Minneapolis.
5. Clement, Douglas. 2011. "The Generation Gap." *The Region* 25(3), Federal Reserve Bank of Minneapolis.
6. de Cordoba, Gonzalo Fernandez and Timothy J. Kehoe. 2009. "The Current Financial Crisis: What Should We Learn From the Great Depressions of the 20th Century?" *The Region* 5, Federal Reserve Bank of Minneapolis.
7. Daly, Mary. C., Bart Hobijn, Ayşegül Sahin, and Robert G. Valletta. 2012. "A Search and Matching Approach to Labor Markets." *Journal of Economic Perspectives* 26(3).
8. Drautzburg, Thorsten, Jesús Fernández-Villaverde, and Pablo Guerrón-Quintana. 2017. "Political Distribution Risk and Aggregate Fluctuations." *NBER Working Paper* 23647.
9. Duarte, Margarida, Diego Retuccia, and Andrea Waddle. 2007. "Exchange Rates and Business Cycles Across Countries." *Economic Quarterly* 93(1).
10. Elsby, Michael W. L., Bart Hobijn, and Ayşegül Sahin. 2010. "The Labor Market in the Great Recession." *NBER Working Paper* 15979.
11. Estevado, Marcello and Evidiki Tsounta. 2011. "Has the Great Recession Raised U.S. Structural Unemployment." *IMF Working Paper* WP/11/105.
12. Fernald, John G. and Charles I. Jones. 2013. "The Future of U.S. Economic Growth." *American Economic Review, Papers and Proceedings* (May).
13. Fraumeni, Barbara. 2009. "The Contributions of Highways to GDP Growth." *NBER Working Paper* 14736.
14. Goodfriend, Marvin. 2007. "How the World Achieved Consensus on Monetary Policy." *Journal of Economic Perspectives* 21(4).
15. Hines, James R. 2007. "Taxing Consumption and Other Sins." *Journal of Economic Perspectives* 21(1).
16. Humpage, Owen F. 2008. "Rising Relative Prices or Inflation: Why Knowing the Difference Matters." *Economic Commentary*, Federal Reserve Bank of Cleveland.
17. Juhn, Chinhui and Simon Potter. 2006. "Changes in Labor Force Participation in the United States." *Journal of Economic Perspectives* 20(3).

18. King, R. G. and R. Levine. 1993. "Finance and Growth: Schumpeter Might be Right." *Quarterly Journal of Economics* 108(3).
19. Kocherlakota, Narayana. 2010. "Modern Macroeconomic Models as Tools for Economic Policy." *The Region* 24(1), Federal Reserve Bank of Minneapolis.
20. Kocherlakota, Narayana. 2011. "Labor Markets and Monetary Policy." *The Region* 25(1), Federal Reserve Bank of Minneapolis.
21. Koo, Richard C. 2011. "The World in Balance Sheet Recession: Causes Cures and Politics." *Real Economic Review* 58.
22. Ludvigson, Sydney C. 2004. "Consumer Confidence and Consumer Spending." *Journal of Economic Perspectives* 18(2).
23. Mankiw, N. Gregory. 2006. "The Macroeconomist as Scientist and Engineer." *Journal of Economic Perspectives* 20(4).
24. Mester, Loretta J. 2015. "Long Run Economic Growth." <https://www.clevelandfed.org/newsroom-and-events/speeches/sp-20151015-long-run-economic-growth.aspx>
25. Meyer, Bruce D. and James X. Sullivan. 2017. "Consumption and Income Inequality in the U.S. Since the 1960s." *NBER Working Paper* 23655.
26. Murat, Tasci. 2011. "This Time May not be Different: Labor Markets, the Great Recession and the (Not So Great) Recovery." *Economic Commentary* 18.
27. Perri, Fabrizio and Joe Steinberg. 2012. "Inequality and Redistribution during the Great Recession." *The Region* 26(2), Federal Reserve Bank of Minneapolis.
28. Papadimitriou, Dimitri, Greg Hannsgen, and Gennaro Zezza. 2011. "Is the Recovery Sustainable?" Strategic Analysis, Levy Economics Institute.
29. Pescatori, Andrea and Saeed Zaman. 2011. "Macroeconomic Models, Forecasting and Policymaking." *Economic Commentary* 19, Federal Reserve Bank of Cleveland.
30. Piketty, Thomas and Emmanuel Saez. 2007. "How Progressive is the U.S. Federal Tax System? A Historical Perspective." *Journal of Economic Perspectives* 21(1).
31. Ramey, Valerie. 2011. "Can Government Purchases Stimulate the Economy?" *Journal of Economic Literature* 49(3).
32. Romer, Paul M. 1999. "The Origins of Endogenous Growth." *Journal of Economic Perspectives* 8(1).
33. Slesnick, Daniel T. 1992. "Aggregate Consumption and Saving in the Postwar United States." *Review of Economics and Statistics* 74(4).
34. Stock, James H. and Mark W. Watson. 2017. "Twenty Years of Time Series Econometrics in Ten Pictures." *Journal of Economic Perspectives* 31(2).