

API-120: Advanced Macroeconomics for the Open Economy, Fall 2019

Harvard Kennedy School

Course Syllabus: prospectus, outline/schedule and readings

Staff:	Professor:	Jeffrey Frankel	Littauer 217; jeffrey_frankel@harvard.edu.
	Office hours:	Mon. & Wed. 4:15-5:15, L217.	
	Faculty Assistant:	Minoo Ghoreishi	Belfer 510A. (617) 384-7329.
	Teaching Fellow:	Can Soylu	
	Course Assistants:	Jason Keene, Juan Paez & Stella Tam.	
Times:	Lectures:	Littauer 140, Mondays and Wednesdays, 2:45-4:00 pm. ¹	
	Review Sessions:	Tuesdays: 4:15-5:30 pm (in R-304); Fridays: 8:45 -10 am or 10:15 -11:30 am (in L-230).	
	Final exam:	Friday, Dec. 13, 2:00-5:00 pm.	

Course Description: This course is the first in the two-course sequence on Macroeconomic Policy in the MPA/ID program. It particularly emphasizes the international dimension. The general perspective is that of developing countries and other small open economies, defined as those for whom world income, world inflation and world interest rates can be taken as given, and possibly the terms of trade as well. The focus is on monetary, fiscal, and exchange rate policy, and on the determination of the current account balance, national income, and inflation. Models of devaluation include those where the price of internationally traded goods in terms of non-traded goods is central. A theme is the implications of increased integration of global financial markets. Another is countries' choice of monetary regime, especially the degree of exchange rate flexibility. There will be applications to the problems of commodity-exporting countries, among other topics. (Such topics as exchange rate overshooting, speculative attacks, portfolio diversification and debt crises will be covered in the first half of API 119.)

Nature of the approach: The course is largely built around analytical models. Although real-world examples will appear throughout, we will rely heavily on theoretical and econometric analysis, as is customary in economics classes. Having said that, the course largely leaves to the successor course, API 119, the mathematical derivation of behavioral equations from first principles of individuals' optimization of intertemporal utility.

Who is expected to take the course: This course, like Advanced Macroeconomics for the Open Economy II (API 119), is a required component of the MPA / International Development sequence. It is envisioned that some students might one day be making policy recommendations or decisions in a central bank or economics ministry or an international financial institution, but first needs training at a high level of intellectual rigor. Others may less macro-oriented, and just want to be able better to read the *Economist* or *FT*. In addition to MPA/ID students, a very few other students are sometimes admitted by permission of instructor – for example, someone who has taken BGP-620 and done well in it, and who in addition is comfortable with calculus and the other mathematical tools that distinguish the MPA/ID curriculum.

Required tools: Besides macroeconomics, some knowledge of basic microeconomics and international economics is presumed. Analytical tools to be used include especially calculus.

^{1/} 1st lecture: Wed., Sept.4, 2019, 2nd lecture Fri. Sept. 6.

Grading: Problem sets 25%, mid-term exam 25%; final exam 50%.

Problem Set **Due date (10:10 a.m.
in the MPA/ID drop box)**

- | | |
|----|------------------------------|
| 1. | Thurs., Sept. 12 |
| 2. | Thurs., Sept. 19 |
| 3. | Thurs., Sept.26 |
| 4. | Thurs., Oct. 3 |
| 5. | Thurs., Oct. 10 |
| | [Midterm exam Wed., Oct. 16] |
| 6. | Thurs., Oct. 31 |
| 7. | Thurs., Nov. 7 |
| 8. | Thurs., Nov. 21 |

Please check the dates of the midterm and final exams.

If you cannot take the exams, do not take the course.

Students are responsible for knowing what is in [the Academic Code](#).

Readings:

For most lectures, there is a single triple-starred reading that students are required to read *in advance of the lecture*. You may be called on in class to answer a question based on the reading.

Readings are either scholarly articles, short news media stories, or textbook chapters. The main textbook is the second half of [World Trade and Payments, R. Caves, J. Frankel, & R. Jones \(10th edition, Addison-Wesley Longman, 2007\)](#), which is abbreviated *WTP* on the reading list. Chapters are available online at the course page and also on my Publications page. For those who want to try to buy a hard copy, possible options include the Coop or online from Amazon (either new or used). Also there may be some copies on reserve in the HKS library, G floor of Littauer.

For lectures 7 and 10-13 [Money & Inflation], the text is “Monetary Policy,” Chapter 12, of David Romer’s *Advanced Macroeconomics*, 5th ed., McGraw Hill, 2019, or Chapter 10 in the 4th ed., 2012. (Romer is also the text for the 2nd half of API119, Macro II.)

Textbooks for further background: Most students will have already studied basic or intermediate macroeconomics. The necessary pre-requisite background in macroeconomics at a basic level is represented by Greg Mankiw, *Macroeconomics*, e.g., 9th ed. (Worth: NY), 2015.

At a considerably more advanced level than *WTP*, the recommended text is Maurice Obstfeld and Kenneth Rogoff, *Foundations of International Economics* (MIT Press, 1996).

API-120: Macroeconomic Policy Analysis I

Prof. Jeffrey A. Frankel, Harvard Kennedy School

Topics and schedule:

Tentative due dates
for Problem Sets:

I. REVIEW OF BASIC MACRO CONCEPTS

1. (9/4) GDP accounting
2. (9/6) Balance of payments accounting & the National Saving identity
3. (9/9) The traditional Keynesian multiplier model

II. DEVALUATION AND THE TRADE BALANCE

4. (9/11) The Marshall-Lerner condition _ PS 1 due 9/12
5. (9/16) The trade balance in practice.

III. THE MUNDELL-FLEMING MODEL

6. (9/18) The Mundell-Fleming model with a fixed exchange rate _ PS 2 due 9/19
7. (9/23) Monetary policy at the Zero Lower Bound
8. (9/25) Mechanisms of adjustment: Reserve flows _ PS 3 due 9/26
9. (9/30) The model with a floating rate & perfect capital mobility; The Impossible Trinity.

IV. INFLATION

10. (10/2) Aggregate Demand and Aggregate Supply __ PS 4 due 10/3
11. (10/7) Inflation and the rational expectations hypothesis
12. (10/9) Dynamically inconsistent monetary policy vs. monetary rules __ PS5 due 10/10
[10/14 Columbus Day holiday]
13. (10/16) **MIDTERM EXAM**
14. (10/21) Seigniorage and hyperinflation
15. (10/23) Application: Macro policy in China #1 (2004-11).

V. INTEGRATION OF GOODS MARKETS

16. (10/28) Trade. Does arbitrage enforce PPP? Speed of adjustment.
17. (10/30) Barriers to integration. __ PS 6 due 10/31
18. (11/4) Nontraded goods and Balassa-Samuelson relationship.

VI. SMALL OPEN ECONOMIES

19. (11/6) Devaluation in small countries __ PS 7 due 11/7
[11/11 Veterans Day holiday]
20. (11/13) The Salter-Swan model featuring nontraded goods
21. (11/18) EM crises: currency mismatches & contractionary devaluation __ PS8 due 11/21
22. (11/20) Dutch Disease
- 22 ½ (11/22?) Possible optional lecture: The Natural Resource Curse

VII. EXCHANGE RATE REGIMES

23. (11/25) Classification; Pros and cons of fixed vs. floating Rates
[11/27-11/30 Thanksgiving holiday]
24. (12/2) Optimum Currency Areas & currency unions.
25. (12/4) More on EM currencies
- 25 ½ (12/6?) Possible optional lecture: Macro policy in China #2

Friday, Dec. 13, 2:00-5:00 pm. **FINAL EXAM**

API-120: Macroeconomic Policy Analysis I

Prof. Jeffrey A. Frankel, Harvard Kennedy School

READING ASSIGNMENTS

* = required reading, available online when possible

** = required strongly, available online when possible

*** = required strongly to read *before* lecture. You may be called upon.

[] = background readings

I REVIEW OF MACROECONOMIC CONCEPTS

1. (9/4) GDP accounting

Paul Krugman, 1994, "[The Myth of the Asian Miracle](#)," *Foreign Affairs*, 73, 6, Nov., 62-78. **

"[The lives of the parties: China's economy is more Soviet than you think](#)," *Economist*, Dec.15, 2018. *

Arvind Subramanian, 2019, "Validating India's GDP Growth Estimates," July, [CID WP 357](#).

Reported in "[The Indian growth fable: A former official casts doubt on India's GDP figures](#)," *Economist*, June 15, 2019. **

W.Chen, X.Chen, Chang-Tai Hsieh & Z.Song, 2019, "[A Forensic Examination of China's National Accounts](#)," [NBER WP 25754](#), April. *

Amadou Sy, 2015, "[Are African countries rebasing GDP in 2014 finding evidence of structural transformation?](#)," Brookings Institution, March 3.

2. (9/6) Balance of payments accounting and the National Saving identity

Caves, Frankel & Jones, [World Trade and Payments \(WTP\), 2007, Chapter 15 & 17.2](#) ***

"China Concerns: [Tourism deficit leaves current account vulnerable to trade shock](#)," *Financial Times*, June 14, 2018. **

"[Pakistan's economy: In need of re-stitching](#)," *The Economist*, June 16, 2018. *

3. (9/10) The Keynesian multiplier model

Caves, Frankel and Jones *WTP*, 2007, Chapters 17.1, 17.3 & 18.1-18.2. ***

Olivier Blanchard and Daniel Leigh, 2014, "[Growth Forecasts Errors and Fiscal Multipliers](#)," *American Economic Review*, 103, no.3, pp. 117-120. From [IMF WP 13-1](#).

M.Bussière, et al, 2013, "[Estimating Trade Elasticities: Demand Composition and the Trade Collapse of 2008-2009](#)," *AEJ: Macroec.* 5, 3, July, 118-51. [NBER WP 17712](#). *VoxEU Summary*, 2012.

II. DEVALUATION AND THE TRADE BALANCE

4. (9/11) The Marshall-Lerner condition

Caves, Frankel & Jones, *WTP*, 2007, Chapter 16 & Supplement, pp. S43-S44. ***

5. (9/16) The trade balance in practice.

Jaime Marquez, 2002, "Income and Price Effects of Asian Trade," in his *Estimating Trade Elasticities* (Kluwer, Boston), pp. 91-97. ***

Dani Rodrik, 2008, "[The Real Exchange Rate and Economic Growth](#)," *Brookings Papers on Economic Activity*, No. 2.

Rustam Jamilov, 2013, "J-Curve Dynamics and the Marshall-Lerner Condition: Evidence from Azerbaijan," *Transition Studies Review*, vol. 19, no. 3, pp. 313-323.

III. THE MUNDELL-FLEMING MODEL

6. (9/18) Mundell-Fleming model of monetary & fiscal policy with a fixed exchange rate

[Caves, Frankel and Jones WTP, 2007, Chapters 18.3-18.4, 22.1-22.3](#) ***

[Also Romer, Chapter 6.1]

Ethan Ilzetzki, Enrique Mendoza & Carlos Vegh, 2013, "[How Big \(Small?\) Are Fiscal Multipliers?](#)" *J.Mon.Ec.* 60, 2, 239-54. [NBER WP 16479](#) or [IMF WP 1152](#). [Summary](#) NBER Digest, 2011. *

["A stimulating question: Can emerging economies now afford counter-cyclical policies?"](#) *The Economist*, Dec. 13, 2008, p. 90. *

["Argentine businesses battle to survive 40% interest rates,"](#) *Fin. Times*, June 11, 2018. **

7. (9/23) Monetary Policy at the Zero Lower Bound

Romer's *Advanced Macroeconomics*, Chapter 12.2 & 12.6-12.7 in 5th ed. *

Paul Krugman, "[The Shock of the Normal](#)," *NYT* blog, Jan. 7, 2017.

Raghuram Rajan, "Central banks' year of reckoning," [Project Syndicate](#), Dec. 21, 2017.

8. (9/25) Mechanisms of adjustment: Reserve flows

Caves, Frankel and Jones *WTP*, 2007, Chapters 19.1, 22.4-22.7. ***

["Hot money flows into Argentine peso spook President Macri,"](#) *Fin. Times*, May 27, 2016. *

["Swiss central bank blames strong franc as eurozone pulls away,"](#) *Fin. Times*, June 16, 2017.

["Turkish lira up 2% after central bank raises interest rates to keep inflation in check,"](#) *Financial Times*, July 8, 2018. **

["Why investors favour economically orthodox political strongmen: A guide to auto-technocracy,"](#) *The Economist*, July 27, 2019. ***

9. (9/30) The model with a floating rate & perfect capital mobility; Impossible Trinity.
 Caves, Frankel and Jones *WTP*, 2007, Chapter 23. ***
 Robert Mundell, 1963, "[Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates](#)," *Canadian J. Ec. & P.S.*, Nov.
 "[Brazil's economy: Wild horses – A soaring currency...](#)" *The Economist*, Apr.23, 2011. **

IV. MONEY AND INFLATION

10. (10/2) Aggregate Demand, Aggregate Supply, and money growth
WTP, Chapter 26.1 ***
 Romer's *Advanced Macroeconomics* (McGraw Hill, 2019), Chapter 12.1 in 5th ed. *
 Prachi Mishra & Peter Montiel, 2013, "[How Effective is Monetary Transmission in Low-income Countries? A Survey of the Empirical Evidence](#)," *Economic Systems*. vol.37, issue 2, June, 187–216. [IMF WP12143](#). *
 "[Some like it hot: Which emerging economies are at greatest risk of overheating?](#)" *Economist*, July 2, 2011, p.65. **
 "[India lifts interest rate to curb price pressures](#)," *Financial Times*, June 7, 2018. *
 "[Joblessness in Asia: The luxury of unemployment](#)," *The Economist*, June 9, 2018, p.65.
11. (10/7) Inflation and the rational expectations hypothesis
 David Romer, *Advanced Macroeconomics*, Chapter 12.3 in 5th ed. ***
 [Chapter 6.2-6.4 of David Romer's *Advanced Macroeconomics* 4rd ed., 2011]
 "[Argentina's inflation problem: The price of cooking the books](#)," *Economist*, Feb. 25, 2012, 47-48.
 "[The winding road: Monetary policy in Africa has become more orthodox](#)," *The Economist*, Jan. 26, 2019. **
12. (10/9) Dynamically inconsistent monetary policy vs. monetary rules
WTP, Chapters 26.3-26.4 ***
 Romer, *Advanced Macroeconomics*, Chapters 12.8-12.9 in 5th ed. (11.7-11.8 in 4th ed.) **
 Kenneth Rogoff, 1985, "[The Optimal Degree of Commitment to an Intermediate Monetary Target](#)," *Quarterly Journal of Economics* 100, Nov., 1169-1189.
 Kenneth Rogoff, 2003, "[Globalization and Disinflation](#)," *Economic Review*, Federal Reserve Bank of Kansas City, 88, no. 4, 4th quarter, pp. 45-78.
 J. Frankel, 2011, "[Monetary Policy in Emerging Markets: A Survey](#)," in [Handbook of Monetary Economics](#), Benjamin Friedman & Michael Woodford, eds. (North Holland). HKS [RWP 11-003](#); NBER WP 16125.
 "[Nigeria's Central Bank Chief Warns on Autonomy](#)," *Financial Times*, June 7, 2012.
 Mario Blejer, 2013, "[Political Central Banking: Get ready for the end of central bank independence](#)," *The International Economy*, 27, no.2, spring, pp. 32-33.
 "[The desperation of independents: Stubbornly low interest rates may mean the end of central-bank autonomy](#)," *The Economist*, Aug, 6, 2016.
 "[Erdogan deals a fresh blow to Turkey's economy](#)," *Financial Times*, July 8, 2019.
 "[Recep Tayyip Erdogan sacks the head of Turkey's central bank](#)," *The Economist*, July 13, 2019. *
13. (10/16) **MIDTERM EXAM**

14. (10/21) Seigniorage and hyperinflation

WTP, Chapter 19.3 & page 582 ***

Romer's *Advanced Macroeconomics*, Chapter 12.10 in 5th edition (11.9 in 4th ed.) *

Rudiger Dornbusch & Stanley Fischer, 1993, "[Moderate Inflation](#)," *W.Bk.Ec.Rev.* 7, 1, 1-44.

Philip Cagan, 1956, "The Monetary Dynamics of Hyperinflation," in Milton Friedman, ed., *Studies in the Quantity Theory of Money* (Univ. of Chicago Press, Chicago), 25-117.

"[Venezuela – The half life of a currency](#): Hyperinflation is hard to grasp, harder still to tolerate," *The Economist*, Sept. 13, 2018.

"[Hyperinflation can end quickly, given the right sort of regime change](#)," *Economist*, Jan. 31, 2019. ***

15. (10/23) Application: Macroeconomics in China 2004-11

J. Frankel, 2010, "[The Renminbi Since 2005](#)," in *The US-Sino Currency Dispute: New Insights from Economics, Politics and Law*, edited by S. Evenett (CEPR: London), 51-60. **

Eswar Prasad, and Shang-Jin Wei, 2011, "[The Chinese approach to capital inflows: patterns and possible explanations](#)," in *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices and Consequences* (University of Chicago Press): 421-480.

V. INTEGRATION OF GOODS MARKETS

16. (10/28) PPP

Caves, Frankel and Jones, *WTP*, 2007, Chapter 19.2. ***

Alan Taylor and Mark Taylor, 2004, "[The Purchasing Power Parity Debate](#)," *Journal of Economic Perspectives*, 18, 4, 135-158, Fall. *

Kenneth Rogoff, 1996, "[The Purchasing Power Parity Puzzle](#)," *J.Ec.Lit.*, 34, 2, June, 647-68.

Camila Casas, Federico Diez, [Gita Gopinath](#), and Pierre-Olivier Gourinchas, 2017, "[Dominant Currency Paradigm](#)." [NBER WP 22943](#). [WP, August 2017](#).

17. (10/30) Barriers to trade integration

Andrew Rose, 2000, "[One Money, One Market: Estimating the Effect of Common Currencies on Trade](#)," *Economic Policy* vol.15, no.30, April. **

Charles Engel and John Rogers, 1996, "[How Wide is the Border?](#)" *Am.Econ.Rev.* 86, 5, Dec., 1112-25. [NBER WP 4829](#). *

Michael Mussa, 1986, "[Nominal Exchange Rate Regimes and the Behavior of Real Exchange Rates: Evidence and Implications](#)," *Carnegie Rochester Series on Public Policy* 25, 117-214.

18. (11/4) Nontraded goods and Balassa-Samuelson

"[The Big Mac Index: Of Bucks and Burgers](#)," *The Economist*, July 15, 2017. **

Bela Balassa, 1964, "[The Purchasing Power Parity Doctrine: A Reappraisal](#)," *JPE*, 72, 584-96.

Jose De Gregorio, Alberto Giovannini, and Holger Wolf, 1994, "[International Evidence on Tradables and Nontradables Inflation](#)," *European Economic Review* 38, no. 6, June, 1225-44.

VI. SMALL OPEN ECONOMIES

19. (11/6) Devaluation in small open countries
Caves, Frankel and Jones, *World Trade and Payments*, Ch. 19.4 & Appendix 19.C. ***
Rudiger Dornbusch, 1973, "[Devaluation, Money and Nontraded Goods](#)," *Amer.Ec. R.*, Dec., 71-80.
Ariel Burstein, Martin Eichenbaum, and Sergio Rebelo, 2005, "[Large Devaluations and the Real Exchange Rate](#)," *J. Political Economy* 113, no.4, August: 742-784. [NBER WP 10986](#). *
20. (11/13) The Salter-Swan Model
Caves, Frankel and Jones, *World Trade and Payments*, Chapter 20. ***
W.E.G. Salter, 1959, "Internal and External Balance – The Role of Price and Expenditure Effects," *Economic Record*, August.
Trevor Swan, 1963, "Longer Run Problems of the Balance of Payments," in H.W.Arndt & W.M.Corden, eds., *The Australian Economy* (Cheshire, Melbourne).
"[Lira plunges as rates freeze raises fears over Erdogan's economic role](#)," *Fin.Times*, July 25, 2018. **
21. (11/18) EM crises: Sudden stops, currency mismatches & contractionary devaluation
WTP, 2007, Ch. 24.1-24.2, 24.6-24.7 ***
Guillermo Calvo, Leo Leiderman and Carmen Reinhart, 1996, "[Inflows of Capital to Developing Countries in the 1990s](#)," *Journal of Economic Perspectives*, 10, 2, Spring, 123-139.
J.Frankel, 2005, "[Contractionary Currency Crashes in Developing Countries](#)," *IMF Staff Papers* 52, 2, 149-92.
"[Financial indulgence](#)," *The Economist*, April 5, 2014.
"[Emerging markets face a dollar double whammy](#)," Urjit Patel, *Fin. Times*, June 4, 2018. *
22. (11/20) Dutch Disease
Jeffrey Sachs, "[How to Handle the Macroeconomics of Oil Wealth](#)," Ch. 7 in *Escaping the Resource Curse*, Humphreys, Sachs & Stiglitz, eds. (Columbia U. Press) 2007, pp.173-193. ***
"[Peru's roaring economy: Hold on tight](#)," *The Economist*, Feb. 2, 2013.
"[Nigeria's economy : More misery ahead](#)," *The Economist*, June 1, 2019. **
- 22 ½ OPTIONAL LECTURE: The Natural Resource Curse & solutions
J. Frankel, 2012, "[The Natural Resource Curse: A Survey of Diagnoses and Some Prescriptions](#)," in [Commodity Price Volatility and Inclusive Growth in Low-Income Countries](#), Arezki, Patillo, Quintyn & Zhu eds. (IMF). HKS [RWP12-014](#); [CID WP no.233](#), 2012. **

VII. EXCHANGE RATE REGIMES

23. (11/25) Classification; Pros and cons of fixed vs. floating Rates

J.Frankel, 2004, "[Experience of and Lessons from Exchange Rate Regimes in Emerging Economies](#)," in *Monetary and Financial Integration in East Asia*, Asian Development Bank (Palgrave Macmillan), vol.2, 91-138. [RWPO3-011](#) and [NBER WP no.10032](#). *

Guillermo Calvo and Carmen Reinhart, "[Fear of Floating](#)," *QJE*, 117, 2, May, 379-408. *

Milton Friedman, 1953, "The Case for Flexible Exchange Rates," in *Essays in Positive Economics* (University of Chicago Press: Chicago), 157-203.

Kenneth Rogoff and Maurice Obstfeld, 1995, "[The Mirage of Fixed Exchange Rates](#)," *Journal of Economic Perspectives* 9, Fall, 73-96.

"[Petri-dish economies: Poland – Few woes in Warsaw](#)," *Economist*, April 30, 2011, p. 83. *

24. (12/2) Optimum Currency Areas & Currency Unions

WTP, Chapter 26.5. ***

Robert Mundell, 1961, "[A Theory of Optimum Currency Areas](#)," *Am.Ec.Rev.*, Sept., 657-65. *

A.Ghosh, A.Gulde and H.Wolf, 2000, "[Currency Boards -- More Than a Quick Fix?](#)" *Economic Policy*, 31, Oct., 270-335.

25. (12/4) Intermediate Exchange Rate Regimes

Paul Krugman, 1991, "[Target Zones and Exchange Rate Dynamics](#)," *Q. J. Ec.* 106, 3, 669-82.

25 ½ POSSIBLE OPTIONAL LECTURE: Macro Policy in China #2 (RMB policy & 2012-19 slowdown)

J.Frankel, 2015, "[Congress, China, & Currency Manipulation](#)," *China-US Focus*, vol.6, May, 36-38. **

Lant Pritchett and Larry Summers, 2014. "[Asia-phoria meet regression to the mean](#)," *AEPC Proceedings* (Federal Reserve Bank of San Francisco), Nov., pp. 1-35. [NBER WP 20573](#)

"[China faces a tough test stabilizing the renminbi](#)," *Financial Times*, July 5, 2018; and response letter, "[A double standard for China's currency](#)," Desmond Lachman, FT, July 11. **

To be covered in API-119 --

More on EM currency crises: early warning indicators and contagion

WTP, Chapter 24.3-24.5, 24.8-24.9

Graciela Kaminsky, Carmen Reinhart and Carlos Vegh, 2003, "The Unholy Trinity of Financial Contagion," *Journal of Economic Perspectives*, 17, no. 4, Fall, 99-118. *

J.Frankel, and G.Saravelos, 2012, "[Are Leading Indicators Useful for Assessing Country Vulnerability? Evidence from the 2008-09 Global Financial Crisis](#)," *J. Int. Ec.* 87, 216-31. [Summary, VoxEU](#). *

"Financial indulgence," *The Economist*, April 5, 2014, p.69.

"Economic epidemiology," *The Economist*, June 16, 2012.

"Emerging-market debt: A run for your money," *The Economist*, Aug.28, 2010, p.66.

"Asia's Great Moderation," *The Economist*, Nov. 10, 2012.

"Hot and Sour: What Asia learned from its financial crisis 20 years ago," *Economist*, July 1, 2017.