Dec.18, 2018

**BGP-620: International Macroeconomics**

**Syllabus, Spring 2019**

**Harvard Kennedy School, Harvard University**

**Staff: Professor: Jeffrey Frankel** Littauer 217, HKS

Faculty Assistant: Minoo Ghoreishi Belfer 505 (617) 384-7329

Teaching Fellow: Hillary Stein Course Assistant: Teuta Turani

**Times:**  Lectures: Tuesdays-Thursdays 2:45-4:00, Littauer 130.

Prof. office hours: Monday & Wednesday, 2:30-3:30 p.m., Littauer 217.

Review session: Fridays, 1:15-2:30, Littauer 332..

Final exam: Wednesday, May 8, 2:00-5:00.

###### Prospectus

**Topics covered**: What is the role of monetary and fiscal policy in an open economy? What determines the balance of payments, the level of economic activity, and inflation? Should countries fix their exchange rates, or let them float? How does the globalization of financial markets affect these and other policy questions?

This course deals with the macroeconomics of open economies. The emphasis will be on models appropriate to major countries. Topics include the foreign exchange market, devaluation, and import and export elasticities; the simultaneous determination of the trade balance, national income, the balance of payments, money flows and price levels; capital flows and our increasingly-integrated financial markets; monetary and fiscal policy in open economies; international macroeconomic interdependence and policy coordination; supply relationships and nominal anchors for monetary policy; currency unions, the determination of exchange rates in international money markets; and international portfolio diversification.

**Nature of the approach**: The course is a relatively comprehensive treatment of standard textbook models in the area of open-economy macroeconomics. Although real-world examples are sprinkled throughout, the course relies heavily on algebraic and graphical analysis, as is customary in economics classes.

**Who should take the course**: Only those who are comfortable with algebraic and graphical analysis should enroll. This is not an appropriate course for students who want some basic general exposure to international economics.

**Prerequisites**: Familiarity with the principles of economics and with intermediate-level macroeconomics is necessary, particularly standard models of monetary and fiscal policy and their effects on interest rates and income. API-101 and API-121, respectively, satisfy the prerequisites for micro and macroeconomics, as do Econ 1010a (or 1011a) and 1010b (or 1011b) in FAS. Some knowledge of international trade theory and econometric techniques is also useful, but definitely not essential. Students must be comfortable with algebra.

**Problem Sets**: Seven quantitative problem sets are planned.

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

Please check the dates for the exams, especially the final exam. If you cannot take the exams, you should not enroll in the course.

Spring 2019

**BGP 620 – International Macroeconomics**

**Course Outline**

Prof. Jeffrey Frankel, Harvard Kennedy School

Friday sessions will consist of review, extensions, applications, and questions and answers regarding the week’s topic.

The required text is *World Trade & Payments*, by R.Caves, J.Frankel, and R.Jones (10th edition, Addison Wesley, 2007). Additional readings are available via links on the course webpage.

Chapter Lecture PS due dates

Topic in *WT&P* number and date (approx.)

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ELASTICITIES & THE TRADE BALANCE

Balance of payments accounting [15](https://scholar.harvard.edu/frankel/classes/bgp-620-international-macroeconomics/materials/ch-15-balance-payments-accounting) 1 Jan. 29

Supply and demand for

foreign exchange [16.](https://scholar.harvard.edu/frankel/classes/bgp-620-international-macroeconomics/materials/ch-16-fx-market-trade-elasticities)1 2 Jan. 31

Export and import elasticities

Empirical effects of devaluation

on the trade balance 16.2 3 Feb. 5

THE KEYNESIAN MODEL Problem

set 1

National saving identity; [17](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp17.p307-326.pdf).1-17.2 4 Feb. 7 \_\_\_due\_\_

fiscal multiplier in an open economy.

Export multiplier; 17.3 } 5 Feb. 12

& the transfer problem. 17.4

Large-country repercussions 17.5-17.6 6 Feb. 14 Problem

& Transmission of disturbances. [18](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp18.p327-352.pdf).1 set 2

Expenditure-reducing policies 18.2 7 Feb. 19 ­­­ \_\_\_due\_\_

vs. -switching policies

MONEY & THE BALANCE OF PAYMENTS Problem

Monetary factors 18.3 8 Feb. 21 set 3

Reserve flows 19.1 9 Feb. 26 \_\_\_due\_\_

Lecture Chapter

topic in *WT &* P Date

GLOBALIZATION OF GOODS & FINANCIAL MARKETS

Goods market integration & PPP [19.2-19.4](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp19.p353-390.pdf) 10 Feb.28 Problem

Financial integration [21.1-21.3](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp21.p409-444.pdf) 11 Mar. 5 \_set 4\_due\_   
forward exchange market

Emerging markets and 21.4

pros & cons of financial opening Ch. 21 Appendix 12 Mar. 7

FISCAL & MONETARY POLICY UNDER INTERNATIONAL CAPITAL MOBILITY

Mundell-Fleming -- with exchange rate fixed [22.1-22.3](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp22.p445-466.pdf) 13 Mar.12

**Midterm exam** 14 Mar.14

[*Spring break March 16 - 24* ]

Problems of policymaking & PRC application 22.4-22.7; 24.1 15 Mar.26

Mundell-Fleming model

-- with the exchange rate floating. [23.1-23.2](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp23.p467-488.pdf) 16 Mar.28

Perfect capital mobility & Impossible Trinity 23.3-23.4 17 Apr. 2   
EM countries and crises [24.2-24.5, 24.7-24.9](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp24.p489-524.pdf)  18 Apr. 4

INTERDEPENDENCE AND COORDINATION Problem

Effects of fiscal expansion in a large country [25](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp25.p525-542.pdf).1 set 5

Estimates of transmission 25.2 19 Apr. 9 \_\_due\_

International policy coordination 25.3

SUPPLY AND INFLATION

Aggregate Supply and wages 26.1 20 Apr.11 Problem

Inflation and anchors for money [26.3-26.4](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp26.p543-570.pdf) set 6

Exchange rate regimes and monetary unions 26.5-26.6 21 Apr.16 \_\_due\_\_

Case study: recent macroeconomics in China 22 Apr.18

EXPECTATIONS AND EXCHANGE RATE MODELS Problem

Interest parity conditions 27.1 } 23 Apr.23 set 7

The monetarist/Lucas model [27.2-27.3](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp27.p571-606.pdf) 24 Apr.25 \_due\_

The overshooting model & forecasting 27.4-27.6, 28.1 25 Apr.30

Currency risk & portfolio diversification [28.1-28.4](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp28.p607-624.pdf)  26 May 2

**Final exam**: Wednesday, May 8, 2:00-5:00 p.m.

**Readings**

The required textbook reading is the second half of *World Trade and Payments*, R.Caves, J.Frankel, and R.Jones, 10th ed. (Addison-Wesley), 2007.

Links to readings listed below are available on the course webpage.

\* asterisk denotes recommended readings

\*\* double asterisk denotes most highly required

(L numbers correspond to scheduled lectures.)

# Balance of Payments Accounting (Lecture 1) [*WTP* Ch.15](https://scholar.harvard.edu/frankel/classes/bgp-620-international-macroeconomics/materials/ch-15-balance-payments-accounting)*\*\**

“[Tourism and the Trade Balance: A Number of Great Import](http://www.economist.com/news/china/21596568-china-has-worlds-biggest-trade-deficitin-services-number-great-import),” *The Economist*, Feb. 15, 2014. \*  
“[The Other Deficit](http://www.economist.com/news/britain/21674792-how-worrying-britains-large-current-account-deficit-other-deficit),” *The Economist*, October 17, 2015. \*  
“[Beijing hails success in battle against capital flight](https://www.ft.com/content/5e692f82-7b45-11e7-9108-edda0bcbc928),” *Financial Times*, Aug. 8, 2017. \*  
“China Concerns: [Tourism deficit leaves current account vulnerable to trade shock](https://www.ft.com/content/a7944958-6e47-11e8-92d3-6c13e5c92914),” *Financial Times*, June 14, 2018. \*\*  
 “[Pakistan’s economy: In need of re-stitching](https://www.economist.com/asia/2018/06/14/pakistan-faces-a-currency-crisis.-who-will-help),” *The Economist*, June 16, 2018

# The Trade Balance

# The effect of currency depreciation on the trade balance (L2-L3) [*WTP* Ch.16](https://scholar.harvard.edu/frankel/classes/bgp-620-international-macroeconomics/materials/ch-16-fx-market-trade-elasticities)*\*\**

“[Petri-dish economies: Poland – Few woes in Warsaw](http://www.economist.com/node/18621646),” *Economist*, April 30, 2011, p. 83. \*\*  
“[Swiss cheesemakers long for a stronger euro](https://www.ft.com/content/bebfc556-720a-11e7-93ff-99f383b09ff9),” Financial Times, August 1, 2017. \*

**Application of the marginal propensity to import to the Great Recession of 2008-09** (L4)

M.Bussière, G.Callegari, F.Ghironi, G.Sestieri, & N.Yamano,2013,"[Estimating Trade Elasticities](http://www.aeaweb.org/atypon.php?return_to=/doi/pdfplus/10.1257/mac.5.3.118): Demand Composition and the Trade Collapse of 2008-2009." *American Economic Journal: Macroeconomics*, 5(3), July, pp. 118-51. NBER WP 17712**.** [Summarized](http://www.voxeu.org/article/understanding-great-trade-collapse-2009) in *VoxEU,* 2012. **\*\***

### Keynesian Multipliers (L5-7) [*WTP* 17](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp17.p307-326.pdf)\*\* & Mundell-Fleming model (L13-16) [*WTP* 22](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp22.p445-466.pdf)*-*[23](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp23.p467-488.pdf)\*\*

Martin Feldstein, 2009, “[Rethinking the Role of Fiscal Policy](http://www.hks.harvard.edu/fs/jfrankel/ITF-220/readings/Feldstein%20Role%20of%20Fiscal%20Policy.pdf),” *Amer.Ec.Rev*  99, no.2, 556-59.

### Ethan Ilzetzki, Enrique Mendoza, and Carlos Vegh, 2013, "[How Big (Small?) are Fiscal Multipliers?,”](http://ideas.repec.org/a/eee/moneco/v60y2013i2p239-254.html) [*Journal of Monetary Economics*](http://ideas.repec.org/s/eee/moneco.html)*,* vol. 60(2), 239-254. [NBER WP](http://ideas.repec.org/s/nbr/nberwo.html) 16479 or [IMF WP 1152](http://www.imf.org/external/pubs/ft/wp/2011/wp1152.pdf), 2011. [Summarized in](http://www.nber.org/digest/mar11/w16479.html) *NBER Digest,* 2011. \*

Olivier Blanchard and Daniel Leigh, 2014, “[Growth Forecasts Errors and Fiscal Multipliers](http://www.jstor.org/stable/23469713),” *American Economic Review*, 103, no.3, pp. 117-12. Based on [IMF WP 13-1](https://www.imf.org/external/pubs/ft/wp/2013/wp1301.pdf).  
“[Chile’s Economy: Cashing in the fruits of rigor](http://www.economist.com/node/13145570),” *The Economist*, Feb. 19, 2009. \*  
“[Economics focus: Much ado about multipliers](http://www.economist.com/node/14505361),” *The Economist*, Sept. 26, 2009, p. 90.  
“[Fiscal Multipliers: Where does the buck stop?”](http://www.economist.com/news/economics-brief/21704784-fiscal-stimulus-idea-championed-john-maynard-keynes-has-gone-and-out) *The Economist*, Aug. 13, 2016, pp.50-51 . \*\*  
“[Hot money flows into Argentine peso spook President Macri](https://app.ft.com/cms/s/ba84956e-22ad-11e6-9d4d-c11776a5124d.html?sectionid=world),” *Financial Times*, May 27, 2016.   
“[Swiss central bank blames strong franc as eurozone pulls away](https://www.ft.com/content/fcc25e7e-51bf-11e7-bfb8-997009366969),” *Financial Times*, June 16, 2017. \*  
“[Argentine businesses battle to survive 40% interest rates,”](https://www.ft.com/content/ec0eb0e0-69e3-11e8-8cf3-0c230fa67aec) *Fin. Times*, June 11, 2018. \*

**Money and the Balance of Payments** (L8-L9) [*WTP* 18](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp18.p327-352.pdf)\*\*

## The gold standard and Bretton Woods (L9)

“[The global monetary system: Not floating, but flailing](http://www.economist.com/news/finance-and-economics/21606322-after-150-years-monetary-experimentation-world-remains-unsure-how),” *The Economist*, July 5, 2014, 57-58. \*

The Globalization of Goods and Financial Markets

## Purchasing power parity (L10) [*WTP* 19](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp19.p353-390.pdf)

[The Big Mac index: Interactive Currency Comparison Tool](http://www.economist.com/content/big-mac-index) [July 2018 or January 2019.] \*\*

Michael Pakko and Patricia Pollard, 2003, “[Burgernomics: A Big Mac Guide to Purchasing Power Parity,](https://research.stlouisfed.org/publications/review/03/11/pakko.pdf)” Federal Reserve Bank of St. Louis *Review*, Nov/Dec., 9-28.   
“Venezuela -- [The half life of a currency](https://www.economist.com/finance-and-economics/2018/09/13/hyperinflation-is-hard-to-grasp-harder-still-to-tolerate): Hyperinflation is hard to grasp, harder still to tolerate” *The Economist*, Sept. 13, 2018.

## The growth of forex trading and other financial markets (L11)

“[Finance: Trick or Treat?”](http://www.economist.com/node/252285) *The Economist*, Oct. 23, 1999, p. 91-92.

“[Future Perfect](http://www.economist.com/node/326882),” *The Economist*, Nov. 27, 1999, pp. 81-82. \*

**Pros and cons of open financial markets** (L12) [*WTP* 21](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp21.p409-444.pdf)\*\*

“[Policing the frontiers of finance – Is foreign capital a luxury that poor countries can live without](http://www.economist.com/node/11016324)?”

[summary of Rodrik & Subramanian], *The Economist*, Apr. 12, 2008, p. 87.

“[Economics Focus: Capital Bonanzas](http://www.economist.com/node/12304702),” [summary of Reinhart & Reinhart] *Economist*, Sept.27, 2008, p.92. \*\*

## “[Capital controversy](http://www.economist.com/node/21552555),” *The Economist*, April 14, 2012, p.86. “[An on-off relationship](http://www.economist.com/news/finance-and-economics/21636082-counter-cyclical-capital-controls-are-great-theory-less-useful),” *The Economist*, Dec. 13, 2014. \* Carmen Reinhart and Kenneth Rogoff, 2004, "[Serial Default And The 'Paradox' Of Rich-To-Poor Capital Flows,](http://ideas.repec.org/a/aea/aecrev/v94y2004i2p53-58.html)" *American Economic Review*, vol. 94, no.2, May, 53-58.

**The Impossible Trinity** (L17)  
Maurice Obstfeld and Alan Taylor, 2017 “[International Monetary Relations: Taking Finance Seriously](https://www.aeaweb.org/articles?id=10.1257/jep.31.3.3),” *Journal of Economic Perspectives*, 31, no. 3 Summer, pp. 3-28. \*   
[“China’s ‘trilemma’ makes it vulnerable to more shocks,”](http://www.ft.com/intl/cms/s/0/72861246-d975-11e5-a72f-1e7744c66818.html#axzz45dll5O1c)  *Financial Times,* Feb. 22, 2016.  
**Emerging markets: inflows and crises** (L18) [*WTP* 24](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp24.p489-524.pdf)  [Optional: [*WTP* 20](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp20.p391-408.pdf)]

Guillermo Calvo, Leo Leiderman and Carmen Reinhart, 1996, “[Inflows of Capital to Developing Countries in the 1990s,](http://mpra.ub.uni-muenchen.de/13707/) “ *Journal of Economic Perspectives*, 10, no. 2, Spring, 123-139.

“[Emerging-market debt: A run for your money](http://www.economist.com/node/16892023/print),” *Economist*, Aug.28, 2010, p.66.

“[Brazil’s economy: Wild horses – A soaring currency…”](http://www.economist.com/node/18587335) *Economist*, Apr. 23, 2011.

“[Economic epidemiology](http://www.economist.com/node/21556903/print),” *The Economist*, June 16, 2012.

“[Asia’s great moderation](http://www.economist.com/news/finance-and-economics/21565978-some-worlds-stablest-economies-are-asian-time-worry-asias-great),” *The Economist*, Nov. 10, 2012.

“[Financial indulgence,”](http://www.economist.com/news/finance-and-economics/21600150-cheap-credit-tempting-emerging-markets-towards-risky-borrowing-financial) *The Economist*, April 5, 2014, p.69. \*  
  
“[Emerging markets face a dollar double whammy](https://www.ft.com/content/e193381a-64c1-11e8-bdd1-cc0534df682c),” Urjit Patel, *Fin. Times*, June 4, 2018. \*

“[Lira plunges as rates freeze raises fears over Erdogan’s economic role](https://www.ft.com/content/5f389ec8-8f23-11e8-bb8f-a6a2f7bca546),” *Financial Times*, July 25, 2018. \*

**The Global Macroeconomic System**

# International macroeconomic policy coordination (L19) [*WTP* 25](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp25.p525-542.pdf) J. Frankel, 2016, "[International Coordination](http://www.hks.harvard.edu/fs/jfrankel/CoodntnSFFRB2015.docx)," [for](http://www.frbsf.org/economic-research/files/Jeffrey-Frankel-Nov20.pdf) *Policy Challenges in a Diverging Global* *Economy,* R.Glick & M.Spiegel, eds.(Federal Reserve Bank of San Francisco); [2015 Asia Economic Policy Conference](http://www.frbsf.org/economic-research/events/2015/november/2015-asia-economic-policy-conference/). HKS [RWP 16-002](https://research.hks.harvard.edu/publications/workingpapers/citation.aspx?PubId=9917&type=FN&PersonId=15). NBER [WP 21878](http://www.nber.org/papers/w21878), 2016; [Summary](http://www.voxeu.org/article/international-macroeconomic-policy-coordination) in *VoxEU*, Dec 2015. \*\*

# “[Brown and Sarkozy seek fiscal boost](http://www.ft.com/cms/s/0/e25fe1cc-c574-11dd-b516-000077b07658.html),” *Financial Times*, December 8, 2008. \* “[Fingers in the dyke](http://www.economist.com/node/13325391),” *The Economist*, March 21, 2009. \*

# ”[What a carry-on](http://www.economist.com/news/finance-and-economics/21678813-monetary-policy-could-drive-currency-volatility-what-carry)” Buttonwood, *Economist* Nov.21, 2015. \*

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# Monetary expansion, supply and inflation (L20) [*WTP* 26](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp26.p543-570.pdf)

“[Some like it hot: Which emerging economies are at greatest risk of overheating?”](file:///I:\jfrankel\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\TYRK0313\Some%20like%20it%20hot:%20Which%20emerging%20economies%20are%20at%20greatest%20risk%20of%20overheating%3f%20Economist,%20July%202,%202011) *Economist*, July 2, 2011, p. 65. \*\*

“[Argentina’s inflation problem: The price of cooking the books](http://www.economist.com/node/21548229),” *The Economist,* Feb.25, 2012, 47-8.  
“[Nigeria’s central bank chief warns on Independence](http://www.ft.com/cms/s/0/42d7dc52-afec-11e1-b737-00144feabdc0.html#axzz22VctqxpL),” *Financial Times*, June 7, 2012.

“[China drains cash to curb inflation](http://www.ft.com/intl/cms/s/0/10aa5b68-7c03-11e2-99f0-00144feabdc0.html#axzz2PQjXdlGf),” *Financial Times*, Feb. 22, 2013.  
   
 “[The desperation of independents: Stubbornly low interest rates may mean the end of central-bank autonomy](http://www.economist.com/news/finance-and-economics/21703372-stubbornly-low-interest-rates-may-mean-end-central-bank-autonomy),” *The Economist*, August 6, 2016  
  
“[South Korea raises rates amid inflation fears](https://www.ft.com/content/e42b6c06-d56e-11e7-8c9a-d9c0a5c8d5c9),” *Financial Times*, Dec. 1, 2017. \*  
  
“[India’s central bank faces a major test of its independence](https://www.economist.com/finance-and-economics/2018/11/03/indias-central-bank-faces-a-major-test-of-its-independence),” *The Economist*, Nov 3rd 2018. \*

**Case Study: Recent macroeconomic policy in China** (L22)

J. Frankel, 2010, "[The Renminbi](https://www.hks.harvard.edu/fs/jfrankel/ChinaRMB$VoxEU2010Apr11.doc) [Since 2005](http://voxeu.org/article/win-win-proposal-let-renminbi-appreciate),"  in [*The US-Sino Currency Dispute: New Insights from Economics, Politics and Law*,](http://voxeu.org/epubs/cepr-reports/us-sino-currency-dispute-new-insights-economics-politics-and-law#anchor) edited by S. Evenett (CEPR: London), 51-60. \*\*  
  
  
  
J.Frankel, 2015, "[Misinterpreting Chinese Intervention in Financial Markets](http://www.chinausfocus.com/finance-economy/misinterpreting-chinese-intervention-in-financial-markets/)," China-US Focus, Sept.10.

# Exchange Rates Monetary union (L21)

Jay Shambaugh, 2012, “[The Euro’s Three Crises](http://www.brookings.edu/~/media/Projects/BPEA/Spring%202012/2012a_Shambaugh.pdf),” *Brookings P.Ec.Act.,* Spring, 157-211. [Summary](http://www.brookings.edu/about/projects/bpea/latest-conference/shambaugh).

### J. Frankel, 2015, [“The Euro Crisis,”](http://www.hks.harvard.edu/fs/jfrankel/EuroFutureAEA2015JPM.docx) *Journal of Policy Modeling*, June. [HKS](https://research.hks.harvard.edu/publications/citation.aspx?PubId=9004&type=FN&PersonId=15) [RWP13-015](https://research.hks.harvard.edu/publications/getFile.aspx?Id=936). Jürgen Stark, “[German prudence is not to blame for the eurozone's ills](http://www.ft.com/intl/cms/s/0/e08ec622-ad28-11e4-a5c1-00144feab7de.html#axzz3uX3sRL00),” *Financial Times,* Feb.11, 2015. \*

# Monetary determination of exchange rates (L23-L25) [*WTP* 27](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp27.p571-606.pdf)

“[Rudiger Dornbusch](http://www.economist.com/node/1270474),” *The Economist*, Aug. 10, 2002, p. 72.

Schools Brief: “[Monopoly Power Over Money](http://www.economist.com/node/260590),” *The Economist*, Nov.18, 1999. \*

**The carry trade** (L26) [WTP 28](https://scholar.harvard.edu/files/frankel/files/wtpfrankel.cp28.p607-624.pdf)

J. Frankel, 2008, ["Carried Away,"](http://www.hks.harvard.edu/fs/jfrankel/CarryTradeMilkenInReview.pdf)  [*Milken Institute Review*](http://www.milkeninstitute.org/publications/publications.taf?cat=MIR&function=list)*,* Q1. Or [full version](http://www.hks.harvard.edu/fs/jfrankel/CarryTradeNov19-2007.pdf). \*