

Course Description: Currency Crashes in Emerging Markets

The six-session mini-course focuses on understanding the causes and impacts of a number of currency crises that have occurred in Emerging Markets countries over the last three decades. Emerging Markets economies have been particularly susceptible to significant currency volatility over the years, especially as their capital markets have increasingly opened to global investors.

The class will begin by defining a currency crisis and what its impact on an economy and society is. Students will begin by understanding what defines a misaligned currency before entering into the discussion of the ramifications of a currency crash. GDP typically declines significantly in the quarters following a currency crisis. Subsequent macroeconomic adjustments (if executed) take their toll on various segments of the country. Stock markets in foreign currency terms usually fall in anticipation of currency depreciation or devaluation. Fears of defaults at the national, provincial, and corporate level rise.

The course will discuss the tremendous dislocation that can occur especially for households that hold assets denominated in the local currency or are leveraged in foreign currencies. Additionally, the course covers how the corporate sector is impacted, concentrating on how import prices rise in local currency terms, and why domestically oriented businesses suffer. The class will also discuss how local financial institutions are impacted, and what leads to bank runs. Banks with currency mismatches on their balance sheets can face immediate insolvency. Some segments of an economy benefit from the currency crash, namely exporters with few imported components and economic agents who engaged in capital flight or dollarization of their portfolios prior to the crash. The pass through to inflation, and what determines a pass-through coefficient will also be addressed.

Following will be a discussion of the causes of a currency crisis, including: a) overvalued pegged exchange rates as occurred repeatedly in the 1990s, and loss of international reserves to defend an overvalued currency. (We introduce methodologies for currency valuation such as real effective exchange rates.), b) macroeconomic imbalances such as a debt problem at the sovereign or corporate level, c) irresponsible fiscal and monetary policy (for example, monetary financing), d) political factors (for example, fears over a paradigm shift, or move to a market 'unfriendly' policy mixes), e) terms of trade shocks (such as an increase in the price of an imported commodity, rising current account deficits, etc.), f) confidence shocks, g) banking crisis (which can be a cause or a result of a currency crash) and h) external factors (for example, tighter monetary policy in the United States).

We then enter into the section of the course that discusses historical cases. These empirical examples have occurred over the last 30 years and students will be exposed to a variety of cases and causes of these crises. Students will examine how policy makers reacted to the various cases and will delve into what policies are necessary to stabilize a currency, restore confidence in the currency as a stable store of value, and prevent an inflation-depreciation spiral from ensuing. Students will compare and contrast the various historical examples presented.

Diagnosing the factors that leads to these events has relevance for students looking to enter careers in global financial markets, as well as those seeking roles in corporate finance or corporate treasuries, as currency risk increasingly plays an important role in the financial results of multinational corporations.

Discussions on these historical cases will be supplemented by guest speakers from some of the countries whose cases we study. They will consist of policy makers at the time of the crisis, or prior/subsequent to the crisis and economists with extensive experience in the official or public sector. These guests will give the students a deeper understanding of the on the ground challenges that these countries faced prior, during and after the worst part of their crises.

Course Method

The course subject matter will be taught through a combination of formal lectures, cases, class discussions, and guest speakers connecting remotely. The particular cases will be the core subject matter, as students learn about the historical experiences of a number of countries.

Students are required to complete the assigned readings and case-related articles before coming to class and should be prepared to discuss both during each session.

Classroom discussions will be highly interactive and all students are expected to participate.

Students will be assessed via class participation, a mid-term exam, and an end of course project where the students will be asked to conduct a deeper analysis of a currency crisis.

The end of year paper will take a current or more recent case with students able to choose a country from the following list of nations that have seen their currencies weaken significantly of late, or experienced a period of rapid depreciation: Sri Lanka, Pakistan, Chile, Colombia, Turkey, Russia and Argentina (with potentially others added to this list). The paper will give students the opportunity to: assess the causes of the current (or recent) crisis, analyze potential resolutions and policy choices and compare/contrast with the historical cases discussed during the course.

Grading weights as follows: 30% class participation, 30% mid-term, 40% end of year project/term paper.

Course plan

Session 1:

- Introduction of the concept of currency crises, and how they are defined.
- Quantitative discussion of overvalued currencies
- Qualitative discussion, and what leads to loss of confidence
- Impacts on a society and longer-term consequences
- How governments react
- How corporations and individuals react and protect themselves
- How countries are able to resolve the crisis

Readings:

- BIS, Real Effective Exchange Rates, The BIS Methodology, by Elod Takats, Irving Fisher. Committee on Central Bank Statistics. Basel: August 28-29, 2012.
https://www.bis.org/ifc/events/6ifcconf/takats_pres.pdf
- IMF, What are Real Exchange Rates? By Luis Catao,
<https://www.imf.org/external/Pubs/FT/fandd/basics/42-real-exchange-rates.htm>
- Goldman Sachs Economics Research, GSDEER: Re-estimation and Test-Based Adjustment, By Thomas Stolper, Anna Stupnytska and Malachy Meechan, October 2009.
- Goldman Sachs Economics Research, Global Economics Paper: 227, Finding Fair Value in EM FX. By Kamakshya Trivedi and Mark Ozerov, January 26, 2016.
- Bloomberg: Goldman Model Hints at more pain for some EM Currencies, September 10, 2018.
<https://www.bloomberg.com/news/articles/2018-09-10/goldman-model-hints-at-more-pain-in-store-for-some-em-currencies#xj4y7vzkg>

Sessions 2-6 will discuss historical examples:

Session 2: Mexico 1994 and Asia crises of 1997 (Thailand, Indonesia, Malaysia)

- Addressing how fixed exchange rate regimes collapsed
- Why were these regimes unsustainable
- Describing why the Asian reaction left these economies more stable longer-term

Readings:

Mexico

- The International Financial System, Crises and Reform. Robbins Lecture by Stanley Fischer, October, 2001.
- United States General Accounting Office, "Mexico's Financial Crisis-Origins, Awareness, Assistance, and Initial Efforts to Recover", Report to the Chairman, Committee on Banking and

Financial Services, House of Representatives, February 1996. (Executive summary through page 28).

- Lustig, Nora, "The United States to the Rescue: Financial Assistance to Mexico in 1982 and 1995", CEPAL Review, number 61, April 1997.
- Griffith-Jones, Stephany, "Causes and Lessons of the Mexican Peso Crisis", UNU/WIDER project on Short Term Capital Movements and Balance of Payments Crises, Working Papers No. 132, May 1997.
- Lustig, Nora, "The Mexico Peso Crisis: The Foreseeable and the Surprise." Brookings Institute: <https://www.brookings.edu/wp-content/uploads/2016/06/bdp114.pdf>
- Edwards, Sebastian. "The Mexico Peso Crisis: How Much Did We Know? When Did We Know It?" From National Bureau of Economic Research, December 1997. <https://www.nber.org/papers/w6334>
- Boughton, James. "Tequila Hangover: The Mexican Peso Crisis and Its Aftermath." Chapter 10 in: International Monetary Fund: In Tearing Down Walls: The International Monetary Fund 1990-1999. <https://www.imf.org/external/pubs/ft/history/2012/pdf/c10.pdf>
- Musacchio, Aldo. "Mexico's Financial Crisis of 1994-1995." Harvard Business School Working Paper. <https://dash.harvard.edu/bitstream/handle/1/9056792/12-101.pdf?sequence=1>

Asia

- Federal Reserve History: Asian Financial Crisis <https://www.federalreservehistory.org/essays/asian-financial-crisis>
- Radelet and Sachs. "The Onset of the East Asian Financial Crisis." National Bureau of Economic Research, August 1998.
- Coresetti, Pesenti and Roubini: "What Caused the Asian currency and financial crisis?" National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w6833/w6833.pdf
- Bloomberg. "Crisis to Crisis: What Asia Learned from the Financial Chaos of 1997." July 1, 2022
- The Economist. "What Asia Learned from its financial crisis 20 years ago." July 1, 2017 <https://www.economist.com/finance-and-economics/2017/07/01/what-asia-learned-from-its-financial-crisis-20-years-ago>
- JPMorgan Asia Focus: FX Reserves. July 29, 2022

Session 3: Argentina 2001

- The failure of Argentina's currency board
- The IMF/Argentina relationship and eventual default
- 5 Presidents in two weeks
- The effects on Argentine society

Argentina

- Blustein, Paul. And the Money Kept Rolling In (and Out): Wall Street, the IMF and the Bankrupting of Argentina. (Optional, as this is an entire book: excerpts to be recommended).

- IMF, Independent Evaluation Office. "The Role of the IMF in Argentina, 1991-2002." <https://www.imf.org/External/NP/ieo/2003/arg/070403.pdf>
- "Argentina's Economic Crisis, Causes and Cures." Joint Economic Committee United States Congress 2003.
- Fanelli, Jose Maria. CEPAL: "Growth, Instability and the Convertibility Crisis in Argentina." August 2002. https://www.cepal.org/sites/def.aalt/files/publication/files/10884/770250431_en.pdf
- Cavallo, Domingo and Mondino, Guillermo. "Argentina's Miracle from Hyperinflation to Sustained Growth." Annual World Bank Conference on Development Economies 1995. <http://www.cavallo.com.ar/wp-content/uploads/argentina%20miracle.pdf>
- Frenkel, Roberto and Rapetti, Martin 2007. "Argentina's Monetary and Exchange Rate Policies after the Convertibility Regime Collapse," CEPR Reports and Issue Briefs 2007-12, Center for Economic and Policy Research (CEPR). <https://ideas.repec.org/p/epo/papers/2007-12.html>
- Edwards, Sebastian. Left Behind, Chapter 7, The Mother of All Crises: Argentina 2001-2002 Latin America and the False Promise of Populism. University of Chicago Press 2010

Sessions 4: Brazil 1999 and 2002

- The breaking of the crawling peg in Brazil
- The implications of the Argentina crisis for Brazil
- The Lula election and its impact on the real
- How markets interpreted Lula's moderation

- Dallas Fed. "Brazil: the first financial crisis of 1999." <https://www.dallasfed.org/~media/documents/research/swe/1999/swe9902c.pdf>
- Ferreira, Afonso and Tullio, Giuseppe. "The Brazilian Exchange Rate Crisis of 1999. Journal of Latin American Studies." <https://www.jstor.org/stable/3875390>
- IMF. "Letter of Intent, Memorandum of Economic Policies, and Technical Memorandum of Understanding." Brasília, August 2002 <https://www.imf.org/external/np/loi/2002/bra/04/index.htm>
- Bulmer-Thomas, Victor. "The Brazilian Devaluation: National Responses and International Consequences." Royal Institute of International Affairs. <https://www.jstor.org/stable/2626275>
- Williamson, John. "International Economics Policy Briefs: Is Brazil Next?" August 2002. <https://www.piie.com/publications/pb/pb02-7.pdf>
- The Economist, October 17, 2002. "The real crisis becomes even more so." <https://www.economist.com/finance-and-economics/2002/10/17/the-real-crisis-becomes-more-so>
- Edwards, Sebastian. Left Behind: Chapter 9, Chavez's Challenge and Lula's Response.

Session 5: Zimbabwe 2008, Argentina 2015 + 2018

- Zimbabwe as perhaps the most dramatic example of a currency crash with nearly unprecedented money printing

-The devaluation of the official rate in 2015 in Argentina followed by another debt-led currency crisis in 2018

- Dallas Federal Reserve. "Hyperinflation in Zimbabwe – 2011 Annual Report of the Globalization and Monetary Policy Institute."
<https://www.dallasfed.org/~media/documents/institute/annual/2011/annual11b.pdf>
- Hanke, Steven. Forbes Magazine. "Zimbabwe Hyperinflates Again, Entering the Record Books for Second time in Less than a Decade", 10/28/2017.
- Hanke, Steven and Kowk, Alex. "On the Measurement of Zimbabwe's Hyperinflation."
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2264895
- Podcast: BBC News Business Daily, Argentina's latest IMF crisis, February 11, 2018.
- Sturzenegger, Federico. "Macri's Macro, the Meandering Road to Stability and Growth. Brookings Paper on Economic Activity." Fall 2019 edition.
<https://www.brookings.edu/bpea-articles/macris-macro-the-meandering-road-to-stability-and-growth/>
- Di Tella, Rafael. "Comments on Macri's Macro by Federico Sturzenegger." Harvard Business School Working Paper, 2019.
https://www.hbs.edu/ris/Publication%20Files/20-025_06d5b0b5-0d47-4463-a091-b2964af918b6.pdf
- EconViews Monthly Report. By Miguel Kiguel and team. December 2015.
- Above section on Argentina can be supplemented by comments and reports from investment bank research notes.

Session 6: Venezuela 2017/18, Turkey 2018/2021, and present day examples of fast depreciations

-The hyperinflation of Maduro

-The flawed interest rate policies of Turkey

-Recent moves in Chile, Colombia and other EMs as the global environment turns hostile

- Odd Lots Podcast: Lessons from Ruth Krivoy, The Former Head of the Central Bank of Venezuela
<https://podcasts.apple.com/at/podcast/lessons-from-ruth-krivoy-former-head-venezuelas-central/id1056200096?i=1000496453097>
- Hanke, Steven and Bushnell Charles. "Venezuela Enters the Record Book." Studies in Applied Economics.
https://sites.krieger.jhu.edu/iae/files/2017/04/Venezuela_Enters_the_Record_Book.pdf
- Caracas Chronicles. "Headed to the longest Hyperinflation in history." September 7 2021
<https://www.caracaschronicles.com/2021/09/07/heading-to-the-longest-hyperinflation-in-history/>
- Caracas Chronicles. "Maduro announced a new currency redenomination: Less zeros more inflation." March 2018.
<https://www.caracaschronicles.com/2018/03/22/maduro-announced-a-new-currency-redenomination-less-zeros-more-inflation/>
- Citi Economics Research. "Turkey Economics View: What is so Special About the Ongoing Adjustment." By Ilker Domac, May 12, 2019.

- Video from Citi Research: “Thinking Aloud About Emerging Markets: How to deal with High Inflation. With David Lubin.” March 16, 2021.
- IMF. “Turkey: 2019 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Turkey.”
<https://www.imf.org/en/Publications/CR/Issues/2019/12/26/Turkey-2019-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-48920>
- Wall Street Journal Podcasts: The Fallout from Turkey’s Economic Experiment, December 2, 2021.
<https://www.wsj.com/podcasts/the-journal/the-fallout-from-turkey-economic-experiment/c1c6e437-48a7-4a06-9f7d-aab54b372d06>
- Wall Street Journal. “Why Investors Have Become Skittish about Turkey. May 18, 2018.
<https://www.bloomberg.com/news/articles/2018-05-18/why-investors-have-become-skittish-about-turkey#xj4y7vzkg>

Some suggested guest speakers:

Mexico: Javier Guzman, former deputy Governor of Banco de Mexico, and former Executive Director of the IMF.

Argentina: Miguel Kiguel, President of Banco Hipotecario during the 2001-02 crisis, and Undersecretary of Finance and Chief Advisor to the Minister of Economy in the late 1990s. Current Director of EconViews consultancy.

Argentina: Miguel Braun, Vice Minister of Finance and Secretary of Commerce for the Macri administration.

Brazil: Mario Mesquita, Chief Economist at Itau, and former director of Economic Policy of Central Bank of Brazil.

Brazil: Alexandre Schwartzman, formerly Director of International Affairs at Central Bank of Brazil.

Venezuela: Ruth de Krivoy, former President of the Central Bank of Venezuela in the 1990s, and currently economic consultant.

Asia: Don Hanna, formerly head of Asia economics at Citi and Goldman Sachs.

Turkey: Ilker Domac, formerly Deputy General Manager of the Central Bank of Turkey and currently Regional Head of Middle East/ Turkey Economics for Citi.

Chile: Jorge Desormeaux, former Vice President of the Central Bank of Chile.

Alberto Ramos, head of Latin American Economics at Goldman Sachs, and Senior Economist at the IMF over several of the crises to be discussed.