

Macro 3: Introduction and Prospective Syllabus

PSE – Masters Year 1 (M1) – Macro 3

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Welcome!

Who am I?

- Alex Clymo – Assistant Professor here at PSE
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What are we doing?

- Elective course in macroeconomics, focusing on **International Macroeconomics**
- Trade deficits and tariffs, international currency and debt crises, ...
- One of your potential project based courses: assessment is 100% group work

Note: Syllabus and details may change slightly before the course starts.

Any questions? Let's go!

Why study international macro?

- Economies are interconnected through **trade**, **capital flows**, and **exchange rates**
- Macroeconomic shocks in one country (e.g. US monetary policy, euro area crises) may spill over to others
- Key questions we will discuss:
 - Why do some countries run **large current account deficits** for long periods?
 - Do **exchange rates** adjust to keep prices aligned across countries (PPP), and if not, why not?
 - How and why do **financial crises** and **sudden stops** in capital flows occur?
 - When do governments **default on their debt**, and how is this priced in financial markets?
 - How much **risk sharing** is there across countries? Do we really live in a global capital market?

Course textbook

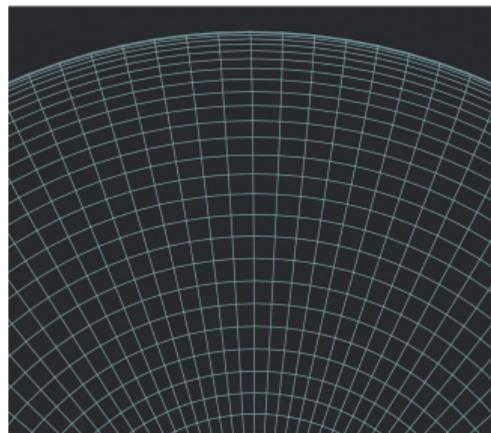
Course textbook: Schmitt-Grohé et al. (2022) “*International Macroeconomics*”

- Each lecture will build directly on certain chapters from this book
- See <https://www.columbia.edu/~mu2166/UIM/> for sample lecture notes
- The course is project based, so we will not be teaching the whole book, and will additionally explore in depth the papers you might use for your projects

INTERNATIONAL MACROECONOMICS

A MODERN APPROACH

Stephanie Schmitt-Grohé
Martin Uribe
Michael Woodford



Course overview (12 hours of lectures)

4 sessions of 3 hours each:

- 1. Current account and global imbalances** [Chapters 1-4, 8]
 - Intertemporal approach to the current account
 - Empirical determinants of current account balances and net foreign assets
 - Can a country run a current account deficit forever?
- 2. Exchange rates and price levels** [Chapters 9-10, 13]
 - Real vs nominal exchange rates, purchasing power parity (PPP) ▶ big mac
 - Deviations from PPP and the Balassa–Samuelson effect
 - Exchange-rate regimes and macro outcomes (fixed vs flexible, fear of floating)
- 3. Crises: sudden stops, sovereign risk** [Chapters 10.4, 15]
 - Defining sudden stops and capital flow reversals
 - Balance of Payments crises
 - Sovereign spreads and default risk
- 4. International risk sharing** [Chapter 11]
 - Covered and uncovered interest parity, carry trade
 - Cross-country consumption correlations and risk-sharing regressions
 - The global financial cycle and US monetary policy spillovers

Group project (core of the course)

- During and after the lectures, you will work in **groups of 3** on a project.
- The project is the **only assessment** for the course.
- Choose a question in international macro (from a list or your own idea). Typically will be an **empirical project**.
- Typical structure:
 1. Select a **reference paper** and **replicate** one key table or figure.
 2. Possibly extend the analysis:
 - Update the sample period
 - Focus on a different set of countries or regions
 - Add extra variables or robustness checks
 3. Write a short **research-style report** and prepare a **presentation**.
- You will use standard macro data sources (IMF, World Bank, OECD, BIS, etc.) and basic econometric tools (OLS, simple time series, panel regressions).

Illustrative project topics

- **Current account determinants:**
 - Re-estimate a classic current account regression (e.g. fiscal balance, demographics, net foreign assets) for an updated sample or specific region
- **PPP and real exchange rate dynamics:**
 - Test PPP for a set of bilateral exchange rates; estimate the half-life of deviations
 - Study the Balassa–Samuelson effect using productivity and price-level data
- **Sudden stops and sovereign risk:**
 - Identify sudden stops in capital flows and conduct an event study of output, exchange rates, and spreads around those episodes
 - Analyse sovereign bond or CDS spreads as a function of global risk and domestic fundamentals
- **Exchange-rate pass-through and spillovers:**
 - Estimate exchange-rate pass-through to import prices or CPI for a chosen country
 - Study the effect of US monetary policy shocks on exchange rates and capital flows in emerging markets

Example project: Testing the degree of international risk sharing

First I need to set up the idea for you (will be done via the lectures)

Small open economy intuition:

- Endowment economy with output Y_t that fluctuates over time.
- Rep. household is risk averse \implies uses world markets to smooth consumption:

$$Y_t = C_t + NX_t$$

- When Y_t is low: $C_t > Y_t$ by funding imports via borrowing (current account deficit).
- When Y_t is high: $C_t < Y_t$ by repaying debt via exports (current account surplus).
- If international financial markets worked **perfectly**, then:

$$C_t \approx \bar{C} \quad (\text{smooth consumption despite shocks to } Y_t)$$

\implies **Insurance role of international trade and capital markets**

What is International Risk Sharing?

Definition: The ability of countries to **insulate consumption** from **idiosyncratic output shocks** by trading **state-contingent claims** or borrowing/lending internationally.

Idea goes back to at least Obstfeld (1986)

Some simple implications for the data:

- Under **perfect risk sharing**: domestic consumption is tied to **global** consumption, not to domestic output (all variables in logs):

$$\Delta c_{i,t} = \Delta c_{world,t}$$

- Under **autarky**: consumption tracks domestic output:

$$\Delta c_{i,t} = \Delta y_{i,t}$$

Neat empirical question: How close are we to perfect consumption risk sharing?

Kose et al. (2009) “Does financial globalization promote risk sharing?”

Basic test: For country i at time t , regress consumption growth on income growth:

$$\Delta c_{i,t} - \Delta c_{world,t} = \alpha + \beta (\Delta y_{i,t} - \Delta y_{world,t}) + \varepsilon_{i,t}$$

- $\beta = 1$: **no risk sharing** (autarky)
- $\beta = 0$: **perfect risk sharing**
- In the data: β is **far from zero**

Data: Penn World Tables and World Bank’s World Development Indicators (both free)

Kose et al. (2009) key findings:

“Using a variety of empirical techniques, we conclude that there is at best a modest degree of international risk sharing, and certainly nowhere near the levels predicted by theory. In addition, only industrial countries have attained better risk sharing outcomes during the recent period of globalization. Developing countries have, by and large, been shut out of this benefit.”

Key figure from Kose et al. (2009)

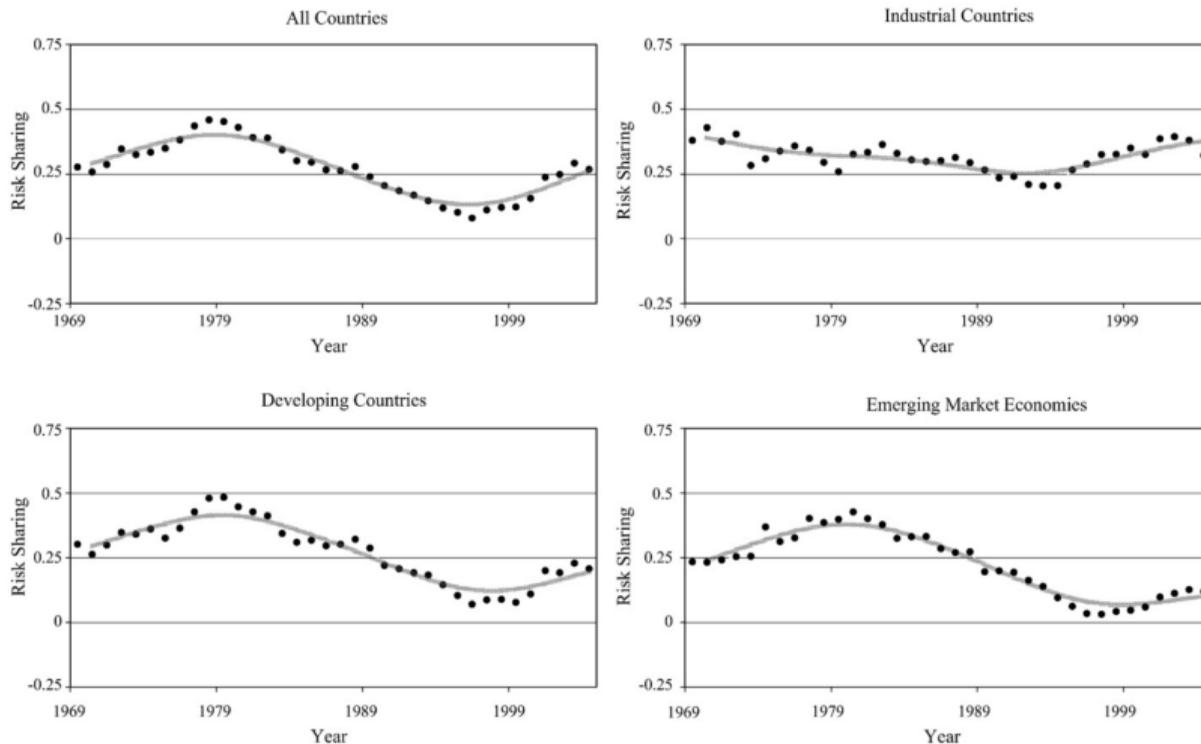


Fig. 1. Risk sharing-cross-section regressions.

Note: Figure plots estimated $(1 - \beta)$ over time for different country groups

Your task for this example project

Partial replication of Kose, Prasad & Terrones (2009):

1. Collect data as close as possible to what they used
2. Estimate their main regression
3. Try to replicate their Figure 1

Important note: *If you cannot match their results exactly that is ok! You will **not** have marks deducted, unless you have made an error. Sometimes, results do not replicate perfectly because the data have changed or been updated, or the original authors made strange choices or mistakes. Replication is very important, and you are helping through these projects!*

Extensions (potential extra credits):

- Extend the sample to most recent data
- Explore different splits of countries, or different hypotheses for why risk sharing has or has not increased

References I

-  Kose, M. Ayhan, Eswar S. Prasad, and Marco E. Terrones (July 2009). “Does Financial Globalization Promote Risk Sharing?” In: *Journal of Development Economics. New Approaches to Financial Globalization* 89.2, pp. 258–270. ISSN: 0304-3878. DOI: [10.1016/j.jdeveco.2008.09.001](https://doi.org/10.1016/j.jdeveco.2008.09.001). (Visited on 11/25/2025).
-  Obstfeld, Maurice (Nov. 1986). *How Integrated Are World Capital Markets? Some New Tests*. Working Paper. DOI: [10.3386/w2075](https://doi.org/10.3386/w2075). National Bureau of Economic Research: 2075. (Visited on 11/26/2025).
-  Schmitt-Grohé, Stephanie, Martín Uribe, and Michael Woodford (2022). *International Macroeconomics: A Modern Approach*. Princeton, New Jersey: Princeton University Press. ISBN: 978-0-691-17064-0.

Appendix



The Price of a McDonald's Big Mac

Based on Capital Cities

According to its annual report, McDonald's has over 40,000 locations worldwide – and the iconic Big Mac is a staple of menus the world over. We've analyzed the cost of purchasing one in each country using the capital city as a benchmark. **Liechtenstein and Switzerland (\$7.75 each)** both have the most expensive Big Macs, based on the cost of one in Vaduz and Bern, respectively.

Big Mac Price (\$)



METHODS: To find the price of a Big Mac in each capital city, we used the McDonald's website for each country as well as a delivery app such as Uber Eats. Data from UberEats, working from a base list of countries where McDonald's operates. We rounded prices to the local currency and converted back to U.S. dollars using Google.