Institution: LONDON BUSINESS SCHOOL		
Unit of Assessment: 17 – Business and Management studies		
Title of case study: Global financial cycle and monetary policy independence		
Period when the underpinning research was undertaken: 2013 to 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Hélène Rey	**Role(s) (e.g. job title):** Lord Raj Bagri Professor of Economics	**Period(s) employed by submitting HEI:** From 01/08/2006
Period when the claimed impact occurred: 2013 onwards		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

The thinking and actions of some of the **world's leading monetary and financial policymakers** have been changed by this research, which **identified a previously-unknown feature** of the global economic system.

First presented in 2013, the finding that **decisions made on US interest rates can alter the flow of investment into and out of countries across the world**, as part of a **global financial cycle**, challenged standard thinking about the relationship between exchange rate regimes, monetary policy and financial stability. It has since **dominated economic and financial discussions** on the world stage.

It has "**influenced our thinking** about the effect of monetary policy in risk taking in international financial markets" says Janet Yellen, former Chair of the **US Federal Reserve** and current **US Treasury Secretary**.

2. Underpinning research

When the United States sneezes, it is said that the rest of the world catches a cold. That's usually taken to indicate the outsized global influence of American culture, politics and economic performance. This research identifies a more subtle – but just as significant – knock-on effect of US actions. It shows that decisions made on US interest rates can alter global financial conditions as measured by spreads, risky asset prices, credit creation and capital flows into and out of countries across the world, as part of a **global financial cycle**.

Hélène Rey **first suggested** the idea of a global financial cycle in a paper she presented to the prestigious Jackson Hole Symposium in August 2013 [3.1].

This pioneering idea was based on Rey's analysis of how international bond, equity and bank lending flows, risky asset prices and credit growth tend to move together globally, creating a "global financial cycle". The study showed how the ups and downs of the cycle seem to align with an index called VIX, a traded asset which reflects the expected market volatility over the next month as well as investor sentiment.

Next, Rey analysed how this global financial cycle impacted financial conditions within countries, as waves of capital washed in and out. She showed that stock market returns, corporate credit spreads, banking sector leverage growth and house price inflation correlated with changes in the VIX, and so with changes in risk taking and the global financial cycle. This effect of the global financial cycle on national financial conditions happened irrespective of the exchange rate regime [3.2].

Finally, the project investigated the cause of fluctuations in the global financial cycle. Rey [3.3] analysed monthly data for 1980 – 2010 (the post crisis sample 2010-2019 was subsequently studied in [3.4]) using newly developed econometric methods enabling to put in evidence causal links between variables. Rey found that the **monetary policy of the Federal Reserve was an important driver of the global financial cycle**. A hundred basis points increase in the effective federal funds rate in the US leads to a contemporaneous increase in risk aversion, a decrease in the estimated global factor in risky asset prices (akin to a 10 percentage points drop in major stock indices), an appreciation of the US Dollar, a decrease in global domestic credit and in leverage for US and non US banks as well as a fall in capital inflows.

Shocks to US monetary policy, in other words, **cause spill-over effects on the financial conditions of other countries**. This US-induced tightening in advanced economies and emerging markets alike occurs whether or not countries have a flexible exchange rate. Rey [3.3] shows it also takes place in the UK and the Euro area for example.

The finding is significant because it **challenges conventional economic wisdom** known as the **Mundellian trilemma**. This states that countries who allow free mobility of capital across their borders, can pursue an independent monetary policy, if and only if they allow the value of their currency to rise and fall relative to others.

The impact of a global financial cycle collapses this trilemma into a dilemma: a country cannot have both monetary and financial autonomy and free import and export of capital, even with a flexible exchange rate. Put another way, if a country wishes to set its own monetary and financial conditions, it must **introduce robust macroprudential policies** to **regulate** the financial sector and sometimes it must **restrict international capital** flows [3.5].

3. References to the research

[3.1] **Hélène Rey** "Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence", Federal Reserve Bank of Kansas City Economic Policy Symposium (2013).
DOI: https://doi.org/10.3386/w21162

[3.2] Passari, Evgenia, and **Hélène Rey**. "Financial Flows and the International Monetary System" *The Economic Journal* (2015), 125 (584): 675-698.
DOI: https://doi.org/10.1111/ecoj.12268

[3.3] Miranda-Agrippino Silvia and **Hélène Rey** “US Monetary Policy and the Global Financial Cycle” *The Review of Economic Studies* (2020), 87 (6): 2754-2776.
DOI: https://doi.org/10.1093/restud/rdaa019

[3.4] Miranda-Agrippino Silvia and **Hélène Rey** “The Global Financial Cycle after Lehman” *AEA Papers and Proceedings*, Vol.110, May (2020).
DOI: https://doi.org/10.1257/pandp.20201096

[3.5] **Hélène Rey** “International Channels of Transmission of Monetary Policy and the Mundellian Trilemma”, Mundell Fleming Lecture, *IMF Economic Review* (2016) 64:6.
DOI: https://doi.org/10.1057/imfer.2016.4

4. Details of the impact

The research Rey presented in 2013, which **showed for the first time** that the world’s financial system runs as a cycle largely controlled by US monetary policy, was **provocative, widely discussed and has proven to be very influential** at the highest levels.

Following the high-profile launch of her idea [3.1], Rey has been invited to give several highly prestigious lectures on this research such as the Mundell Fleming Lecture at the IMF in 2014 (first woman to give it; 2013 speaker Paul Krugman, 2015 speaker Ben Bernanke) [5.1], the Paolo Baffi lecture at the Banca d'Italia (first woman) in 2019 [5.2], the Andrew Crockett Memorial Lecture at the Bank for International Settlement (first woman) in 2017 [5.3]. The **IMF constructed its entire 2017 Annual Research Conference** on the concept of the "global financial cycle" that was introduced by Rey's research [5.4].

Backed with solid academic research, Rey's efforts to discuss and share the findings placed her idea firmly at the top of the global economic agenda.

Because many variables combine to inform and steer economic policies, such as the setting of national interest rates, it is difficult to draw a straight line of cause and effect between Rey's academic research and specific rate setting or macroprudential decisions. As such, the impact of the research is **best indicated by the reach and influence** that the results have had on those who do make such decisions. The research has also helped shape the new integrated policy framework of the International Monetary Fund.

For example, **Janet Yellen**, **Chair of the US Federal Reserve** from 2014-2018, says:

"Hélène Rey's research on the global financial cycle and the trilemma **has been important** in informing Federal Open Market Committee discussions especially about the effect of US monetary policy on the rest of the world. It has also **influenced our thinking** about the effect of monetary policy in risk taking in international financial markets." [5.5]

"This line of research is interesting and important. Given the sometimes severe consequences of financial instability, **we have to take these issues very seriously**," says **Ben Bernanke**, also a former US Federal Reserve Chair. [5.6]

"The presence of borrowers and lenders operating in multiple currencies and in multiple countries creates multiple channels through which developments in financial conditions can be transmitted across countries," says **Mark Carney**, former governor of the Bank of England and Chair of the Financial Stability Board and since 2019, UN special envoy for climate action and finance.

"Hélène Rey has been a key proponent of the importance of such channels," he says. [5.7] The research made "an **influential contribution** to the discussions at the **Bank of England**'s Monetary Policy Committee." [5.8]

The research "has helped transform **central bank thinking** on the international transmission of monetary policy" says **Benoît Cœuré**, Head of the BIS Innovation Hub and former member of the Executive Board, European Central Bank. [5.9]

He adds: "Professor Rey's research on the Mundell trilemma and her concept of a "global financial cycle" have led **central bankers to qualify their traditional views** about monetary policy independence and flexible exchange rates, and have been **very influential**. We **used them at the European Central Bank** to understand the international consequences of our conventional and non-conventional monetary policy measures. **I have myself referred to Professor Rey's research** in several public speeches as ECB Executive Board member."

The research has changed how the IMF operates. **IMF Chief Economist Gita Gopinath** says: "Professor Rey's research has been very useful for us. So much so that **her insights have been incorporated in the new analytical Integrated Policy Framework of the Fund**. We highlight in this **new conceptual model the possible role of foreign exchange intervention and capital flow measures to improve monetary autonomy following shocks to international risk appetite**. This is in **accordance with Professor Rey's** work. This new conceptual framework will, subject to approval from the Board, **be gradually rolled out to help our policy advice** to emerging markets and advanced economies." [5.10]

5. Sources to corroborate the impact

[5.1] Mundell-Fleming Lecture - Monetary Policy and International Capital Flows - 13/11/2014 - https://www.imf.org/external/mmedia/view.aspx?vid=3895753082001

[5.2] - Fourteenth Paolo Baffi Lecture on Money and Finance, Banca d'Italia, 22/11/2019 - https://www.bancaditalia.it/pubblicazioni/lezioni-baffi/pblecture-14/index.html?com.dotmarketing.htmlpage.language=1

[5.3] Andrew Crockett Memorial Lecture, Bank for International Settlements, 25/06/2017 - https://www.bis.org/events/agm2017/sp170625.htm

[5.4] IMF Conference -Eighteenth Jacques Polak Annual Research Conference: The Global Financial Cycle, November 2-3, 2017 - https://www.imf.org/en/News/Seminars/Conferences/2017/09/18/2017-eighteenth-annual-research-conference

[5.5] Janet Yellen - Beneficiary statement

[5.6] Ben Bernanke's Blog -"Tantrums and hot money: How does Fed policy affect global financial stability?", 06/01/2016 - https://www.brookings.edu/blog/ben-bernanke/2016/01/06/tantrums-and-hot-money-how-does-fed-policy-affect-global-financial-stability/

[5.7] 2017 IMF Michel Camdessus Central Banking Lecture: Speech by Mark Carney, "[De]Globalisation and inflation", 18/09/2017; https://www.bankofengland.co.uk/-/media/boe/files/speech/2017/de-globalisation-and-inflation.pdf

[5.8] Mark Carney - Beneficiary Statement

[5.9] Benoît Cœuré - Beneficiary Statement

[5.10] Gita Gopinath - Beneficiary Statement