"International Capital Markets and Wealth Transfers"

Magnus Dahlquist, Christian Heyerdahl-Larsen, Anna Pavlova, and Julien Pénasse

Discussion by:

Nancy R. Xu

Boston College

FIRS, Vancouver

June 2, 2023

What does this paper do?

Studies the role of US in wealth transfers, particularly during bad times.

What does this paper do?

Studies the role of US in wealth transfers, particularly during bad times.

- **Why is this an interesting question? (i.e., what is the tension)**

What does this paper do?

Studies the role of US in wealth transfers, particularly during bad times.

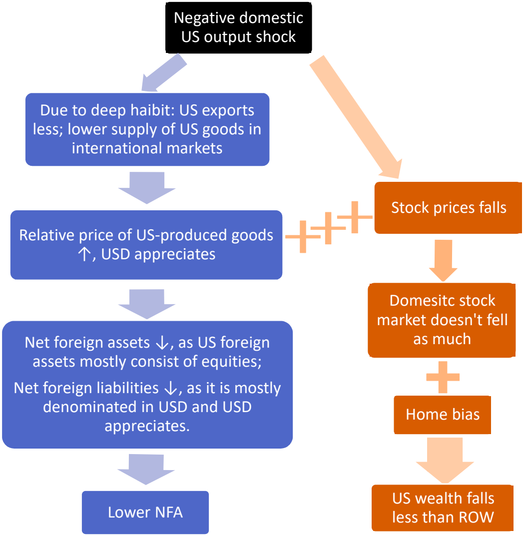
- **Why is this an interesting question? (i.e., what is the tension)**
  ↬ Gourinchas, Rey, and Govillot (2017; GRG2017): The US carries an "exorbitant duty" to provide insurance to the rest of the world that pays off during times of global stress.

What does this paper do?

Studies the role of US in wealth transfers, particularly during bad times.

- **Why is this an interesting question? (i.e., what is the tension)**
  ↬ Gourinchas, Rey, and Govillot (2017; GRG2017): The US carries an "exorbitant duty" to provide insurance to the rest of the world that pays off during times of global stress.
  ↬ This paper: US wealth share increases following negative domestic output shocks, i.e., they receive a wealth transfer from the rest of the world because of USD appreciation and home biases.

Main Theory


Negative domestic US output shock
Due to deep haibit: US exports less; lower supply of US goods in international markets
Relative price of US-produced goods ↑, USD appreciates
Net foreign assets ↓, as US foreign assets mostly consist of equities;
Net foreign liabilities ↓, as it is mostly denominated in USD and USD appreciates.
Lower NFA
Stock prices falls
Domesitc stock market doesn't fell as much
Home bias
US wealth falls less than ROW

Main Theory (or paper's version in Appendix A)

Negative shock to US (times of stress)

USD appreciates
(US good scarce + habit for US good)

Stock markets fall
(global propagation of stress)

US stock market falls less than ROW
(because of USD appreciation)

US NFA fall
(US has a leveraged portfolio)
(Gourinchas and Rey, 2007)

But . . .

US wealth falls less than ROW
(because of US home bias)

Calibration and model take-aways

- Model contains: N-countries, each producing their own good; tradable; consumption generate utility; agents have home bias and deep habits; financial assets; financial wealth (must be higher to sustain consumption levels).

Calibration and model take-aways

- Model contains: N-countries, each producing their own good; tradable; consumption generate utility; agents have home bias and deep habits; financial assets; financial wealth (must be higher to sustain consumption levels).
- Calibrate the model to the G10 countries.

Table 5: Business cycle properties

	Unconditional moments		Recessions (relative to unconditional)	
	Data	Model	Data	Model
Mean excess return	6.28	3.05	−15.05	−15.90
Mean excess return (ROW)	5.90	3.65	−26.60	−18.10
Return volatility	14.34	14.46	8.38	9.00
Return volatility (ROW)	18.55	18.82	8.26	14.40
Mean return correlation	0.65	0.84	0.18	0.08
Mean price-dividend ratio	42.62	61.38	−18.47	−25.47
Mean price-dividend ratio (ROW)	33.89	60.54	−18.50	−24.57
Mean real exchange rate	100.00	100.00	−15.81	−2.16
Exchange rate volatility	9.17	12.31	2.73	9.10
NFA/GDP	−9.09	70.00	−11.43	−40.10
NX/GDP	−1.56	−1.60	4.38	0.90
Wealth share	43.65	10.25	7.57	0.61
GDP share	41.23	10.03	1.39	0.95
Consumption share	44.88	10.03	0.29	0.88

Calibration and model take-aways

- Model contains: N-countries, each producing their own good; tradable; consumption generate utility; agents have home bias and deep habits; financial assets; financial wealth (must be higher to sustain consumption levels).
- Calibrate the model to the G10 countries.

Table 5: Business cycle properties

	Unconditional moments		Recessions (relative to unconditional)	
	Data	Model	Data	Model
Mean excess return	6.28	3.05	−15.05	−15.90
Mean excess return (ROW)	5.90	3.65	−26.60	−18.10
Return volatility	14.34	14.46	8.38	9.00
Return volatility (ROW)	18.55	18.82	8.26	14.40
Mean return correlation	0.65	0.84	0.18	0.08
Mean price-dividend ratio	42.62	61.38	−18.47	−25.47
Mean price-dividend ratio (ROW)	33.89	60.54	−18.50	−24.57
Mean real exchange rate	100.00	100.00	−15.81	−2.16
Exchange rate volatility	9.17	12.31	2.73	9.10
NFA/GDP	−9.09	70.00	−11.43	−40.10
NX/GDP	−1.56	−1.60	4.38	0.90
Wealth share	43.65	10.25	7.57	0.61
GDP share	41.23	10.03	1.39	0.95
Consumption share	44.88	10.03	0.29	0.88

Headline summary: This paper argues against the “exorbitant duty” by GRG2017, and resolves the “reserve currency paradox” of Maggiori2017 — The direction of wealth transfer in bad times is to the US, not from the US, and this can be rationalized in a model with home-based and deep-habit US agent, that also jointly produces a decreasing NFA.

Very nice paper!

- What I really like about it:

Very nice paper!

- What I really like about it:
  ↬ **The question, and implications are important**; i.e., the role of USD in international wealth transfers, obvious investment implications, but there might also be policy implications for foreign policymakers during a US domestic crisis (such as some MP might want to help appreciate their currency even etc);

Very nice paper!

- What I really like about it:
  ↬ **The question, and implications are important**; i.e., the role of USD in international wealth transfers, obvious investment implications, but there might also be policy implications for foreign policymakers during a US domestic crisis (such as some MP might want to help appreciate their currency even etc);
  ↬ **The model is, in my view, rationally intact**; i.e, in particular, this is a theory paper that demonstrates the special role of the US economy and investors without making stark assumptions that they are hegemonic to start with; USD appreciation is an implied result from deep habit formation.

Very nice paper!

- What I really like about it:
  ↬ **The question, and implications are important**; i.e., the role of USD in international wealth transfers, obvious investment implications, but there might also be policy implications for foreign policymakers during a US domestic crisis (such as some MP might want to help appreciate their currency even etc);
  ↬ **The model is, in my view, rationally intact**; i.e, in particular, this is a theory paper that demonstrates the special role of the US economy and investors without making stark assumptions that they are hegemonic to start with; USD appreciation is an implied result from deep habit formation.
  ↬ **The writing is very well and clearly written**; i.e., the big pictures were rephrased multiple times in the paper.

Very nice paper!

- What I really like about it:
  ↬ **The question, and implications are important**; i.e., the role of USD in international wealth transfers, obvious investment implications, but there might also be policy implications for foreign policymakers during a US domestic crisis (such as some MP might want to help appreciate their currency even etc);
  ↬ **The model is, in my view, rationally intact**; i.e, in particular, this is a theory paper that demonstrates the special role of the US economy and investors without making stark assumptions that they are hegemonic to start with; USD appreciation is an implied result from deep habit formation.
  ↬ **The writing is very well and clearly written**; i.e., the big pictures were rephrased multiple times in the paper.

(To be rigorous: Figure demonstrates son guku's evolution)

Very nice paper!

- What I really like about it:
  ↬ **The question, and implications are important**; i.e., the role of USD in international wealth transfers, obvious investment implications, but there might also be policy implications for foreign policymakers during a US domestic crisis (such as some MP might want to help appreciate their currency even etc);
  ↬ **The model is, in my view, rationally intact**; i.e, in particular, this is a theory paper that demonstrates the special role of the US economy and investors without making stark assumptions that they are hegemonic to start with; USD appreciation is an implied result from deep habit formation.
  ↬ **The writing is very well and clearly written**; i.e., the big pictures were rephrased multiple times in the paper.

- **My extending thoughts (what an empiricist could learn & say):**

Very nice paper!

- What I really like about it:
  ↪ **The question, and implications are important**; i.e., the role of USD in international wealth transfers, obvious investment implications, but there might also be policy implications for foreign policymakers during a US domestic crisis (such as some MP might want to help appreciate their currency even etc);
  ↪ **The model is, in my view, rationally intact**; i.e, in particular, this is a theory paper that demonstrates the special role of the US economy and investors without making stark assumptions that they are hegemonic to start with; USD appreciation is an implied result from deep habit formation.
  ↪ **The writing is very well and clearly written**; i.e., the big pictures were rephrased multiple times in the paper.

- **My extending thoughts (what an empiricist could learn & say):**
  1. Address other channels
  2. Implications for future empirical work

Address other channels

- **Current story is a real channel:** Negative domestic output shocks → USD appreciates (due to real channels, trades, and US agent having deep habit) → Domestic stock market fell less than foreign markets → **Home-biased** US agent has more investment in domestic assets → Wealth transfer into the US.

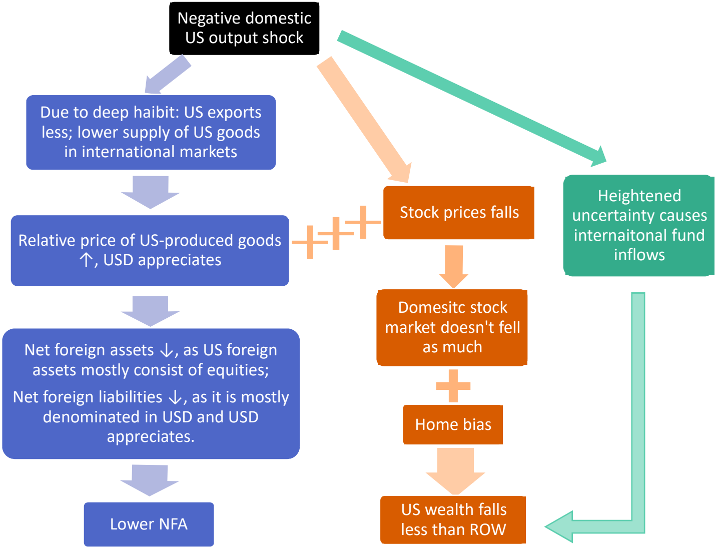
Address other channels

- **Current story is a real channel:** Negative domestic output shocks → USD appreciates (due to real channels, trades, and US agent having deep habit) → Domestic stock market fell less than foreign markets → **Home-biased** US agent has more investment in domestic assets → Wealth transfer into the US.

- **I have been thinking about a risk channel:** Negative domestic output shocks → Global investors worry about risk propagation, and decides to flight to safety → Foreign institutional investors produce massive fund flows into the US, and **fund inflows** drive up returns → Wealth transfer into the US.

Address other channels

- **Current story is a real channel:** Negative domestic output shocks → USD appreciates (due to real channels, trades, and US agent having deep habit) → Domestic stock market fell less than foreign markets → **Home-biased** US agent has more investment in domestic assets → Wealth transfer into the US.
- **I have been thinking about a risk channel:** Negative domestic output shocks → Global investors worry about risk propagation, and decides to flight to safety → Foreign institutional investors produce massive fund flows into the US, and **fund inflows** drive up returns → Wealth transfer into the US.
  - Doesn't require home bias to generate the facts
  - Potentially a more direct, more observable channel (i.e., risk-driven flow channel)
  - This channel is not in the model (which is fine), but it might exist in data.


Negative domestic US output shock
Due to deep haibit: US exports less; lower supply of US goods in international markets
Relative price of US-produced goods ↑, USD appreciates
Net foreign assets ↓, as US foreign assets mostly consist of equities;
Net foreign liabilities ↓, as it is mostly denominated in USD and USD appreciates.
Lower NFA
Stock prices falls
Domesitc stock market doesn't fell as much
Home bias
US wealth falls less than ROW
Heightened uncertainty causes internaitonal fund inflows

Empirical implications to think about

1. **How to best convince readers that the home bias channel is large enough to generate wealth transfer** (without looking at quantities; i.e., I continue to have this flow view in mind)? There should always be multiple channels that explain stylized empirical observations.

Empirical implications to think about

1. **How to best convince readers that the home bias channel is large enough to generate wealth transfer** (without looking at quantities; i.e., I continue to have this flow view in mind)? There should always be multiple channels that explain stylized empirical observations.
   Suggestion: One empirical fact that perhaps helps increase the plausibility of the channel, empirically, is that asset home bias is countercyclical, as discussed in Bekaert, Siegel, Wang, and Xu (2023; WIP).

Empirical implications to think about

1. **How to best convince readers that the home bias channel is large enough to generate wealth transfer** (without looking at quantities; i.e., I continue to have this flow view in mind)? There should always be multiple channels that explain stylized empirical observations.
   Suggestion: One empirical fact that perhaps helps increase the plausibility of the channel, empirically, is that asset home bias is countercyclical, as discussed in Bekaert, Siegel, Wang, and Xu (2023; WIP).

2. The paper ultimately wants to jointly explain the following four facts, and (I believe) the motivation section (Section 2) demonstrates evidence for (i), (iii), and (iv) below in Figure 1-3.

> recession dates. We show that the model reproduces the facts that in times of stress: (i) the USD appreciates; (ii) the US stock market falls less than foreign stock markets; (iii) the US NFA fall; and yet (iv) the wealth of the US relative to the rest of the world increases.

Empirical implications to think about

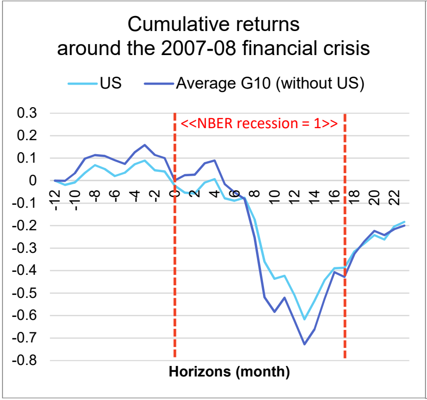
1. **How to best convince readers that the home bias channel is large enough to generate wealth transfer** (without looking at quantities; i.e., I continue to have this flow view in mind)? There should always be multiple channels that explain stylized empirical observations.
   Suggestion: One empirical fact that perhaps helps increase the plausibility of the channel, empirically, is that asset home bias is countercyclical, as discussed in Bekaert, Siegel, Wang, and Xu (2023; WIP).

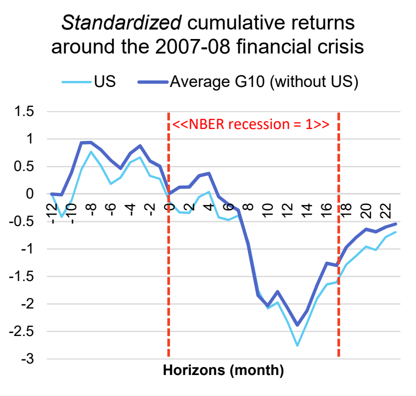
2. The paper ultimately wants to jointly explain the following four facts, and (I believe) the motivation section (Section 2) demonstrates evidence for (i), (iii), and (iv) below in Figure 1-3.

   recession dates. We show that the model reproduces the facts that in times of stress: (i) the USD appreciates; (ii) the US stock market falls less than foreign stock markets; (iii) the US NFA fall; and yet (iv) the wealth of the US relative to the rest of the world increases.

   Suggestion: It would be great to show some empirical evidence for (ii) – which is likely at the core of the home-bias channel. {And I did some work... (next page)}

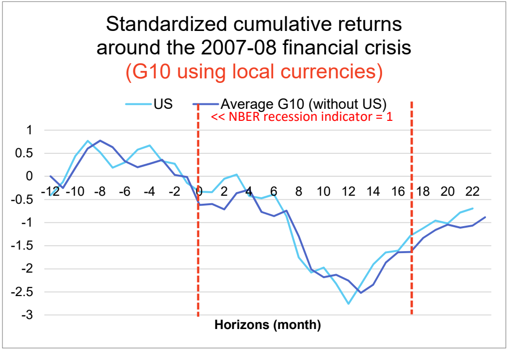
Case study: G10 vs US stock returns during 2007-08



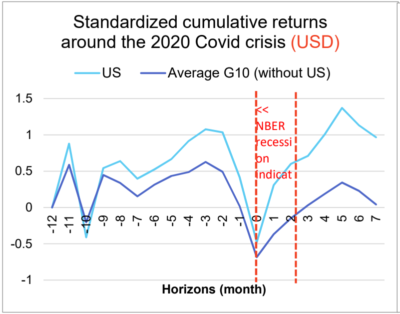


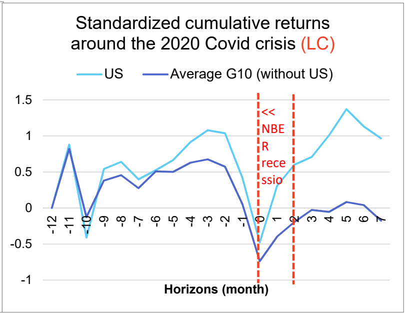
- What I am doing here: Left – cumulative returns from -12 month to [-12 month, 23 months], with event=0 being December 2007; right – standardized cumulative returns. Returns are calculated from MSCI USD-denominated total return index. US vs. G10 (minus US).
- **Suggestion:** Empirically, whether US stock market indeed fell less than G10 is worth investigating.

Case study: Under local currencies

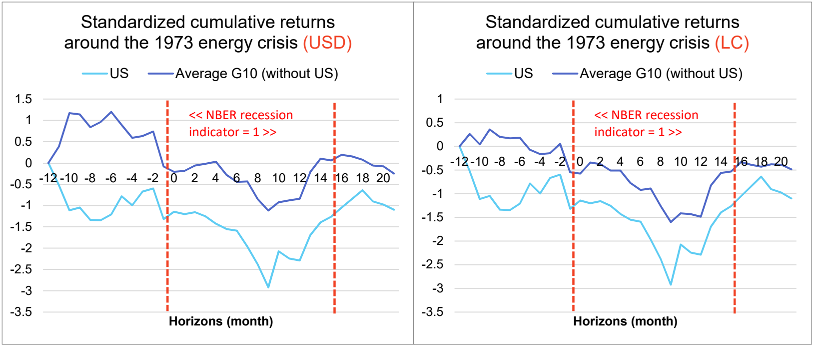


Case study: The 2020 covid crisis





Case study: The 1973 energy crisis



(Happy to share data behind these plots!)

Conclusion

- **Highly recommend!**
- **My comments:**
  1. Perhaps there is a risk-driven quantity channel that the paper can address;
  2. Several empirical links to think about :)

Thank You!

nancy.xu@bc.edu