Comments on
E. Albagli, C. Carlomagno, J. Ledezma, M. Rezczynski: "Fundamental Drivers of Financial Conditions"

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with Martin Carrasco, Bocconi University

Annual Conference "Monetary Policy, Financial Markets, and Challenges Ahead: Celebrating the Centennial of the Central Bank of Chile"

Santiago, November 20-21, 2025

Roadmap

1. What the Paper Does
2. Theoretical Limitations
3. Empirical Limitations
4. Conclusions

1. What the Paper Does

Contributions and Methodology

a) **Identification of structural shocks**
   - The paper develop a daily-frequency structural VAR that decomposes global financial conditions into six shocks

b) **High-frequency global dataset**

c) **Restrictions-based identification**
   - Assigns economic meaning to shocks by imposing directional and magnitude constraints

d) **Financial Conditions Index (FCI)**
   - A key contribution is a structural FCI that weights each shock yielding a daily measure of financial conditions

e) **Historical decompositions and event studies**
   - The framework is used to reinterpret major episodes such as Taper Tantrum (2013), Euro-area crisis (2011), Jackson Hole 2024–25

Timely and Policy-Relevant paper

- **Real-time shock decomposition, scenario analysis, and a shock-based FCI**
  - Allows to distinguish whether tightening comes from growth, risk, or policy shocks—improving communication, stress testing, and policy design
- **Relevant paper in a world characterized by**:
  - Paper's demand shocks: Global financial cycle after 2020 / Safe-asset scarcity and dollar risk / China's slowdown and commodity exporters / Public debt, neutral rates and geopolitics
- **Potential Policy Implications of FCI:**
  - **Early-warning indicator**
  - **Differentiated policy responses:** the FCI disentangles shocks then policymakers can tailor responses
  - **Improve CB communication strategy**
  - **Financial Conditions Targeting?**

2. Theoretical limitations

Theoretical limitations (1/2)

a) The paper lacks a behavioral model

- Macro-finance theory features a **low-dimensional pricing kernel** but the paper imposes three orthogonal risk-premium shocks without a structural model
- **Distinctions between shocks are statistical rather than structural**
- **Identification problem:** shocks are hard to separate in practice (common/hedging risk shocks generate similar yield-equity comovements); the dollar-hedging shock acts as a residual that could reflect safe-asset scarcity, convenience yields, or geopolitical risk

b) Taylor-rule misalignment

- **NK frameworks:** MPR follows a Taylor rule, and financial conditions enter only under financial-stability considerations
- The paper **does not link the FCI to a Taylor rule**
- **Problem:** aggregating heterogeneous shocks into a single FCI makes it unclear how policymakers should map movements in FCI into MPR

Theoretical limitations (2/2)

c) US-centered bias

- 5/6 U.S.-centered shocks: over-attributes global variation to U.S. shocks
- Global shocks (e.g. geopolitics) risk being **misclassified as U.S. shocks**
- **Distorted policy messages**: FCI: "tightening driven by U.S. common risk and U.S. MPR" but in reality, was a European stress/global risk-off, with the U.S. simply reacting

d) Treatment of the China shock

- **Single "growth" shock:** China affects the world through multiple real and financial channels
- **Hang Seng proxy:** highly sensitive to global risk/U.S. (not only China)
- **Orthogonal to U.S. shocks:** unrealistic
- **Ex. 1:** A U.S.-driven global risk episode (lower U.S. inflation, falling VIX) can be misclassified as a "China growth" shock (fits the sign restrictions)
- **Ex. 2:** A commodity shock (e.g. an OPEC+ supply cut raising oil and copper prices) can be misclassified as "China growth", even though it's unrelated to China's fundamentals

3. Empirical limitations

Empirical limitations (1/4)

a) Critical sample omission: the Global Financial Crisis:

- **The sample starts in 2010, excluding the GFC:** the episode where shocks were most clearly revealed
- **Limitation:** VAR learns about risk-premium and dollar-hedging shocks only from the muted, QE-distorted post-2010 regime
- **Weakens external validity:** the model cannot reliably interpret financial crisis-like episodes and makes the estimated shocks **regime-specific**

b) Limits of Sign and Magnitude Restrictions:

- Sign-restricted SVARs admit **many admissible models**
- The paper relies heavily on signs and magnitudes to separate **closely related shocks**
- Structural decomposition may therefore reflect **one chosen rotation:**
- **Ex. 1:** A shock of equities ↑ and yields ↑ can be generated by many combinations of U.S. growth, risk-premium, and monetary-policy shocks
- **Ex. 2:** defining a "growth shock" as equities ↑ and yields ↑, even if the true driver is a mix of risk-premium and monetary-policy shocks

Empirical limitations (2/4)

c) Structural breaks undermine time-invariant identification:

- **2010–2025 sample:** spans radically different regimes
- **A linear time-invariant SVAR:** forces all these environments to share the same shock transmission (implausible)
- **A single constant impact matrix:** mixes incompatible regimes, weakens structural interpretation and credibility of decompositions
- **Ex.:** A monetary tightening shock in **2012** generated tiny yield responses, while the same shock in **2022** generated sharp yield spikes

d) Daily Frequency vs. High-Frequency Identification

- **The model treats all daily movements as macro shocks:** but macro shocks arrive only at discrete announcements (FOMC, CPI, crises)
- **Ex:** A daily move (e.g., S&P −1.2%) may be 30% macro and 70% noise, yet the SVAR must attribute 100% to structural shocks.
- **Without intraday identification:** the estimated "shocks" mix macro information with noise, weakening identification and the credibility of the decomposition

Empirical limitations (3/4)

e) White-noise Residuals Assumption with Daily Data:

- Daily yields, FX, and equity returns typically show autocorrelation and volatility clustering
- **A short daily VAR may not fully absorb this persistence:** residuals risk being serially correlated, implying VAR misspecification (true process closer to VARMA)
- In the daily SVAR, the **paper assumes a short VAR removes all persistence** in financial variables (i.e., residuals = white noise)
- With **daily frequency: this is much harder to justify** without residual diagnostics
- **Implication:** risk of over-interpreting daily noise as structural shocks if residual autocorrelation remains/ misspecified dynamics/ potentially invalid standard errors and tests/ Biased and unstable IRF
- **Robustness check:** alternative or complementary methods (event-study instruments, heteroskedastic-ID, TVP/regime-switching SVAR, VARMA) could strengthen the shock identification

Empirical limitations (4/4)

f) Aggregating EM Economies Through EM factor:

- **Paper's EM factor:** mixes sovereign spreads, FX, and equities from heterogeneous EMs, masking major structural differences
- **Limitation:** biases the shock decomposition toward global U.S.-driven factors and understates commodity and China-related channels—limiting its policy relevance for SOEs (like Chile)

g) Orthogonality of Multiple Risk-Premium Shocks (complement to theoretical limitation (a)):

- The paper **imposes three orthogonal risk-premium shocks**, yet theory often implies a low-dimensional global price of risk
- **Orthogonality may be a statistical artifact** of the identification rather than a structural feature
- The paper does not test whether the shocks are empirically orthogonal—for example, using high-frequency instruments or statistical methods like independent component analysis

What about other institutions' FCIs?

Feature	This paper	Chicago Fed NFCI	Goldman Sachs FCI	IMF / BIS Global FCIs	Bank of England FCI
Type	SVAR	Static PCA	Reduced-form weighted index	Global Dynamic Factor Model	PCA Macro-financial factor
Frequency	Daily	Weekly	Daily	Quarterly	Monthly
Main Inputs	U.S. yields, equities, EM FX/spreads, China block	100+ U.S. variables	Rates, spreads, USD, equities	Cross-country risk & credit	UK credit, FX, risk
How Weights Are Set?	Impact of shocks on U.S. demand	PCA	Calibrated using GS macro model	Statistical factors on Dynamic Factor Model	PCA on macro variables + filters
Interpretability	High at shock level	Low	Medium	Medium	Medium
Strength	"Policy interpretable"	Very broad	Market intuitive	Captures global cycle	Suited to UK economy
Limitation	Identification fragility; U.S.-centric	Not structural	Ad hoc; not structural	Low frequency	Limited global spillovers

Note: Some central banks discontinued FCIs (e.g., Bank of Canada, RBNZ) because large swings in single components—especially exchange rates—made the indices volatile, misleading, or hard to interpret.

The Art of Monetary Policy: Keep it Simple

Dependent variable: Monetary Policy Rate						
Method	IV-FE	IV-FE	DSGMM	DSGMM	IV-FE	DSGMM
	(1)	(2)	(3)	(4)	(5)	(6)
Lagged MPR	0.920***	0.911***	0.912***	0.902***	0.907***	0.920***
	(0.040)	(0.039)	(0.038)	(0.039)	(0.038)	(0.037)
Inflation	0.021***		0.018***		0.010***	0.009***
	(0.003)		(0.002)		(0.004)	(0.002)
Unemployment	-0.013**		0.008**		-0.016***	-0.010***
	(0.005)		(0.006)		(0.006)	(0.006)
Inflation forecast		0.113***		0.113***	0.087***	0.090***
		(0.044)		(0.024)	(0.040)	(0.023)
GDP growth forecast		0.026***		0.021**	0.010**	0.005*
		(0.007)		(0.000)	(0.004)	(0.001)
Observations	7822	7822	7822	7822	7822	7822
Countries	29	29	29	29	29	29
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, and * p<0.1.

4. Conclusions

Conclusions

- This excellent paper offers **valuable and ambitious contributions** to decompose global financial conditions into daily structural shocks and build a shock-based FCI
- However, there are **theoretical and empirical limitations**: lack of behavioral model, daily-frequency shocks, U.S.-centric structure, China shock misclassification, multiple risk-premium shocks, and omission of the GFC — affect structural interpretation/credibility of the model
- **Broader lesson:** financial conditions are noisy, regime-dependent, and multidimensional — making complex structural shock decompositions hard to interpret and possibly even more difficult to use
- **Bottom line:** this is a very good paper!

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