

Financial Conditions Targeting in a Multi-Asset Open Economy

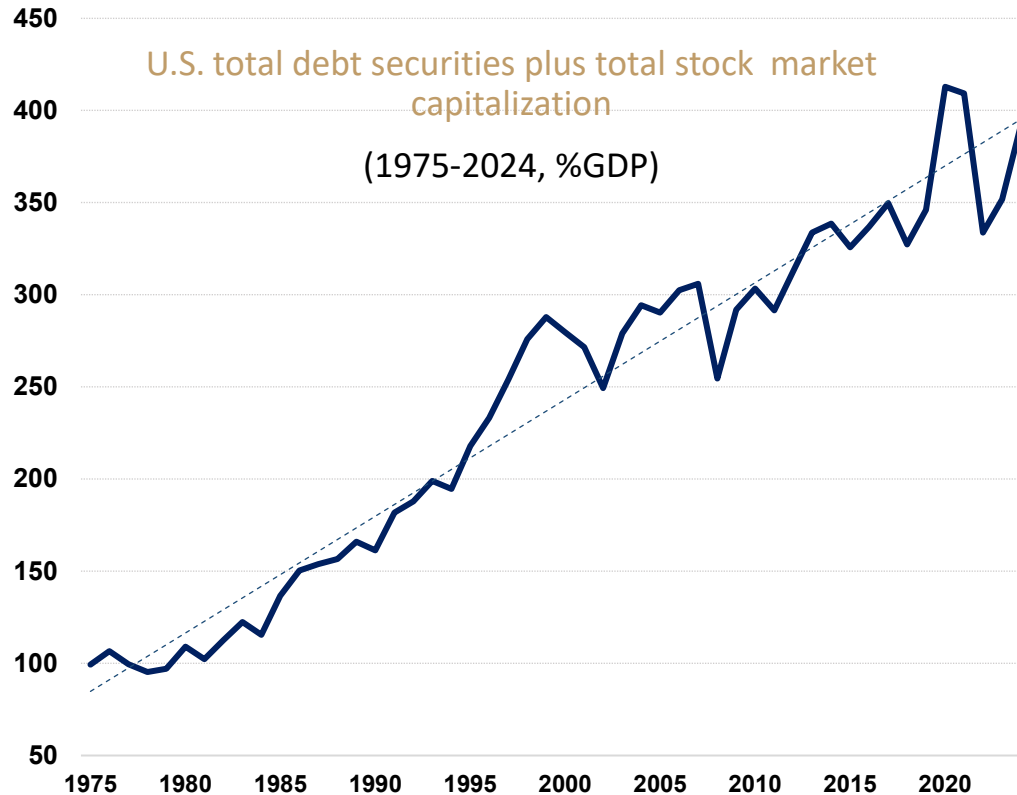
Ricardo Caballero and Alp Simsek

Comments by:

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FCI* (Caballero and Simsek): FC (increasingly) affect the economic cycle...



- FC are becoming increasingly important drivers of the macro cycle (US: 4-fold increase, as % GDP, in 50 years), posing several questions:
 - What are the key FC that drive the cycle?
 - Through which channels do they propagate?
 - How should MP be (re)-designed to achieve macro stabilization?

FCI* (Caballero and Simsek): ...and depend on MP design

This paper: micro-founded macro model where FC drive the economic cycle.

- $y_t - y_t^* = f_t - f_t^*; f_t = \frac{1}{2}e_t + \frac{1}{2}p_t$
 - Output gap depends on FC: exchange rate and stock valuations
- $e_t = \rho - \left(r_t^f + \frac{1}{2}\sigma_e^2\right) + E_t[e_{t+1}] + \mu_t^e(\sigma_e^2/\alpha)$:
 - FX driven by rate diff. and noise trading (*endogenous* price impact)
- $p_t = \rho + \beta E_t[y_{t+1}] + (1 - \beta)E_t[p_{t+1}] - \left(r_t^f + \frac{1}{2}\sigma_m^2\right) + \mu_t^p(\sigma_m^2/\alpha)$
 - Stocks driven by fundamentals and noise trading (*endogenous* price impact)
- FX and stock mkt volatility, $\sigma_e^2 \equiv \text{Var}_t(e_{t+1})$ and $\sigma_m^2 \equiv \text{Var}_t(r_{t+1}^m)$, are endogenous to MP (r_t^f), which interconnects otherwise segmented mkts.

FCI* (Caballero and Simsek): MP can stabilize FC and real activity more effectively through *dynamic commitment* (FCI*)

- Which MP design minimizes loss funct.? (output gaps and int. rate stabilization)
 - Static: $r_t^f = E_{t-1} [r_t^f] + \theta \tilde{y}_t \rightarrow r_t^f = -\frac{\sigma^2}{2} + \frac{\theta}{1-\theta} \frac{\mu_t^e + \mu_t^p}{2} \frac{\sigma^2}{\alpha}$; MP reacts to macro and noise shocks, dampening endogenous volatility σ through response parameter θ .
 - Dynamic (commitment/FCI*): $r_t^f = E_{t-1} [r_t^f] + \theta \tilde{y}_t + \varphi (f_t - E_{t-1} [f_t^*])$; MP commits ex-ante to respond to future FC deviations.
- Key takeaways:
 1. MP becomes more stabilizing if it reacts contemporaneously to changes in FC.
 2. ...but optimal MP goes beyond contemporaneous response, by targeting future FC, whether they arise from ***fundamentals or noise***.
- Intuition:
 - ***Recruiting effect*** (Caballero et al. 2025); by reducing future p. vol., MP *induces arbitrageurs to trade more aggressively* against noise traders, lowering non-fundamental volatility.
 - Deviating from future fundamentals implies 2nd order loss; but reducing future price vol. has 1st order gain.

Great paper! New channels and novel MP implications --- opening several themes to explore further

- “Limits to arbitrage”: noise vs. fundamentals in driving mkt returns; role of arbitrageurs in dampening or amplifying non-fundamental vol.; degree of price-informativeness. → Macro fundamentals ***absent or exogenous***.
- “Macro-finance” New-Keynesian models: frictions between banks and firms; non-linearities and endogenous amplification. → ***Seldom model securities trading*** by financial Intermediaries.
- This paper (and related work from authors) bridges these lits. with provocative implications for MP.
- **Discussion:** 3 themes that arise from this novel way of integrating asset markets, macroeconomic outcomes, and monetary policy
 1. What are FC, and how do they affect the cycle?
 2. How does FCI* influence information aggregation in markets?
 3. Could FCI* amplify non-fundamental valuations and trigger endogenous downturns?

Discussion (1): what are FC, and how do they affect the cycle?

- Asset-price based FCIs (Hatzius et al., 2017) useful but constitute reduced-form representation of underlying structural shocks (Cieslak and Pang, 2021; Albagli et al., this conference volume).
- Problematic when designing MP response to a particular configuration of shocks.
 - E.g., are long-term yields increasing because investors' fiscal risk perception has deteriorated (a contractionary shock), or because they reflect better growth prospects for the economy (an expansionary shock)?
- If MP is to be informed by, and moreover, target a specific FCI, it would have to overcome this *implementation challenge*.
- However, it is not evident that **targeting structural drivers** of FCI will provide the price smoothing in financial markets needed for “recruitment effect”.
- More thought and analysis should be devoted to this issue!

Discussion (2): How does FCI targeting influence information aggregation in markets?

- Prices imperfectly aggregate information (Grossman and Stiglitz, 1980). Signal-to-noise ratio depend on how strongly informed traders respond to private info, vis-à-vis noise trading.
- Here information is symmetric, so volatility beyond fundamentals is thus i) directly attributable to noise (and MP); ii) unambiguously negative for macro stabilization, and iii) can be directly addressed by FCI*.
- What if arbitrageurs have private information? Not clear that CB can separate noise from fundamentals!
 - Then, learning from prices becomes particularly important. But muting price volatility through FCI* can affect price informativeness!
 - Reduces incentives to respond to private signals (response to $E_t[p_{t+1}|\Omega_i]$ weaker than $\gamma E_t[p_{t+1}|\Omega_i]$, for $\gamma < 1$).
 - On the other hand, FCI* also reduced future p. vol ($\gamma^2 V_t[p_{t+1}|\Omega_i] < V_t[p_{t+1}|\Omega_i]$).
- As is often the case, the answer depends on model assumptions.
 - My hunch: reducing future p. vol. should dominate (incentivize informed trading), or at least be a wash, for price informativeness. But seems worthwhile exploring further.

Discussion (3): Could FCI* amplify non-fundamental valuations and trigger endogenous downturns?

- A more nuanced view on arbitrageurs: they may do more than simply accommodate noise.
- Arbitrageurs could sustain an overall run up in prices, beyond their perception of fundamental valuation, if they believe resale prices will be higher! How could this arise?
- *Limits of arbitrage* is a double-edged sword: when prices do not accurately reflect fundamentals, informed traders can make a profit betting against the market price. But being right **too early** is observationally equivalent to **being wrong**, especially trading other people's money.
 - Traders aware of the mispricing may further fuel it, making additional profits for a time.
- **Abreu and Brunnermeier (2003)**: optimal for traders who become aware of a bubble to ride the market a while longer, since they anticipate that the critical mass of similarly aware traders necessary for the bubble to burst has not been reached.
- Can FCI* further incentivize speculation by lowering price variance? Similar flavor to *Greenspan's put* in incentivizing risk-taking, with real economic consequences:
 - Larger, delayed wealth effects.
 - Real losses through capital misallocation.

Overall, insightful, well-crafted and provocative paper on a crucial question.

Thanks!