

Bringing Credibility Back to Macroeconomic Policy Frameworks

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Summary

- In the spirit of debate, this paper presents arguments against the exuberant increase in central bank balance sheets.
- We argue that the lessons of the post-GFC period are that Quantitative Easing (QE) policies embolden central bankers, excuse political myopia, and enrich major financial institutions.
- We explore the implications of Unconventional Monetary Policies (UMPs) on aggregate debt levels, illustrating rapid leveraging.
- Using the logic of Gibbons, Ross, & Shanken (GRS) (1989), we argue that QE policies have distortionary effects on mean-variance efficient portfolios.
- We propose that reversing the QE predicament requires robustness and neutrality in macroeconomic policy settings.

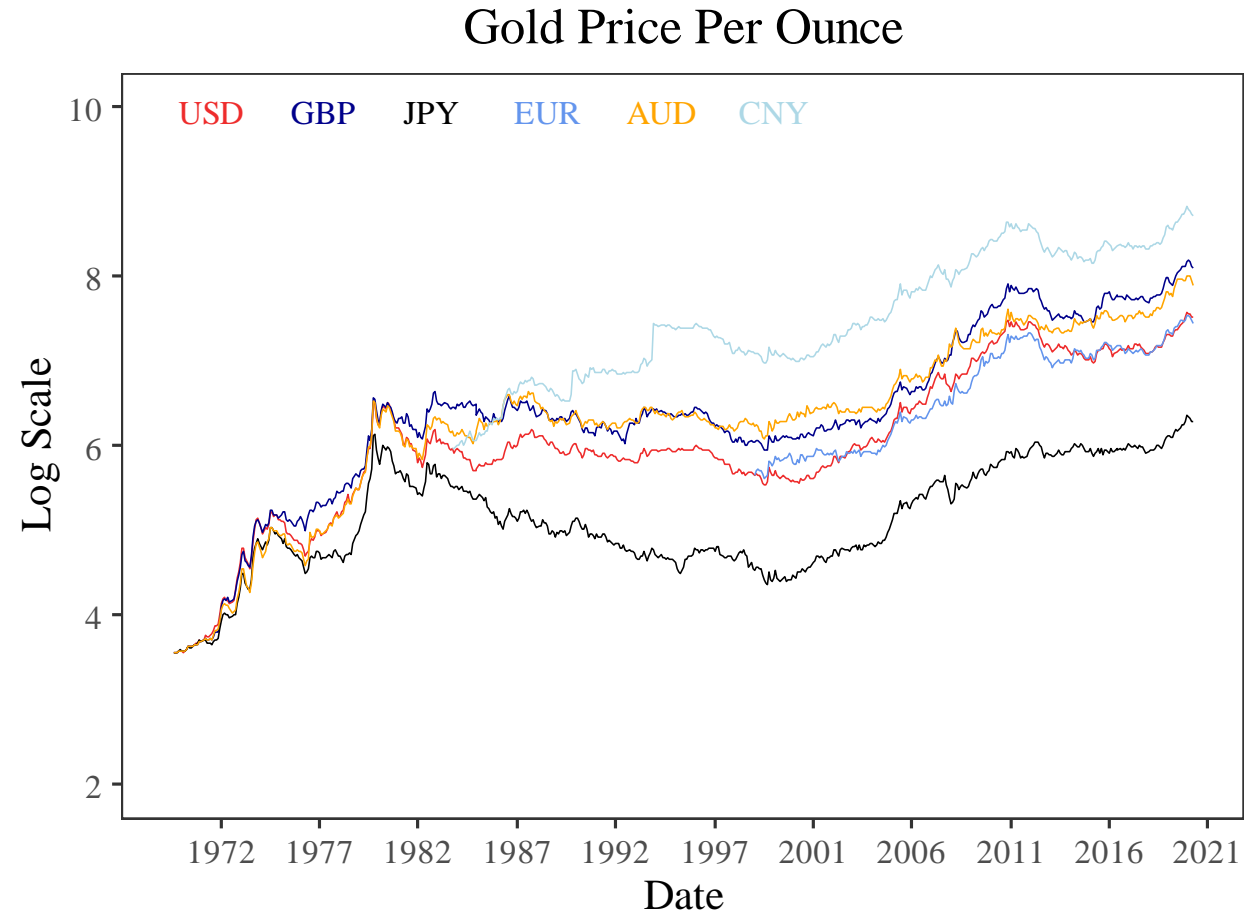
Background

- Since the late 1990s, the stance of monetary policy has been excessively expansionary.
- The collapse of Lehman Brothers in October 2007 saw the end of the great moderation, pushing central banks to the limits of their conventional policy headroom.
- In response, central banks employed UMPs, becoming significant participants in public asset markets.
- Since the GFC and the ongoing COVID–19 pandemic, global macroeconomic policy settings have become unhinged from sustainable foundations.

Literature Review

- Financially vulnerable economies, primarily those reliant on USD funding, experience disproportionate effects stemming from UMPs (Chen et al., 2016).
- QE policies may have accounted for a significant proportion of the post-GFC reduction in global GDP (Blundell-Wignall & Roulet, 2013).
- QE induced private-sector debt issuance increases the refinancing burden in the future, leaving corporates vulnerable to defaults (Bordo & McCauley, 2017).
- Borrowing constraints on younger borrowers implies that a generational inequality may render asymmetric effects on interest rates (Constantinides et al., 2002).
- QE policies cause volatility spillovers on a cross-border basis, with policy normalization fostering significant market volatility (Yahyaei, Singh, & De Mello, *Forthcoming*).

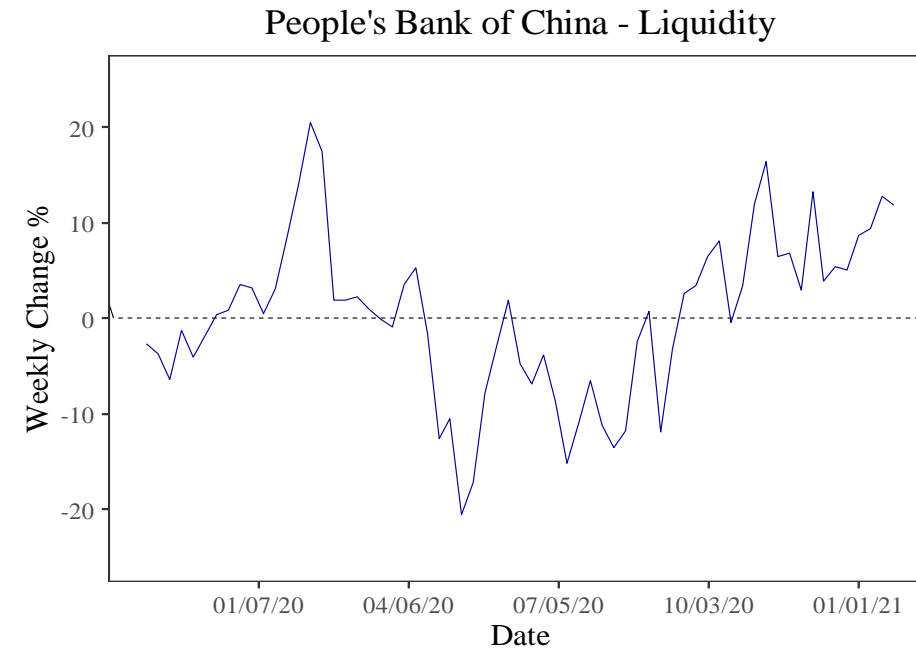
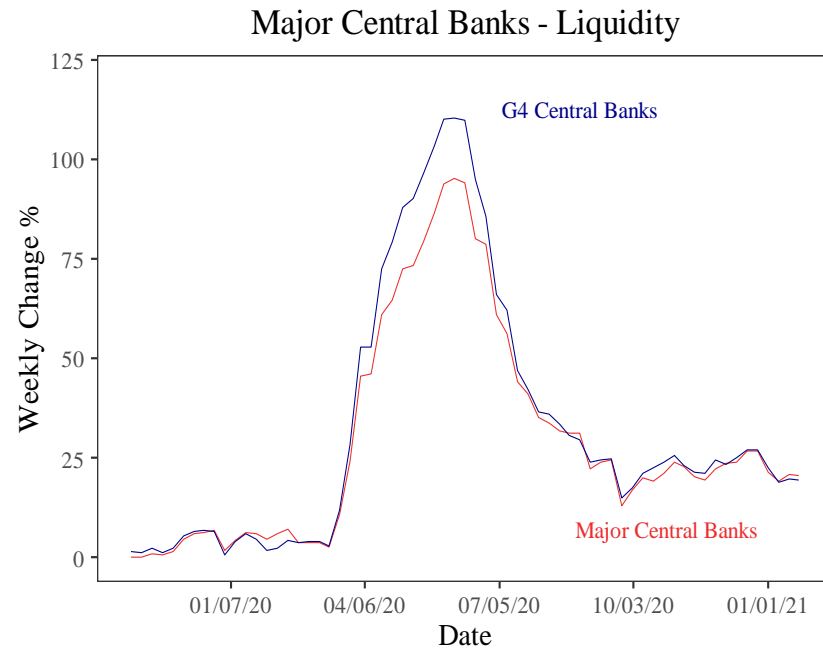
A Simple Framework to Get Started



The Ineffectiveness of UMPs

- The prelude to the COVID-19 pandemic was a decade of weak business investment in OECD economies, driven by expectations of lower-income growth set against booming asset returns.
- Additionally, the '*secular stagnation*' identified by Summers (2018) has promoted an excess of global savings and lackluster business investment.
- Together, these factors have led to a decline in neutral interest rates and trend productivity growth.
- QE policies inflate demand for existing assets, doing little for consumption. Real-economic effects remain subdued while investment returns are magnified.

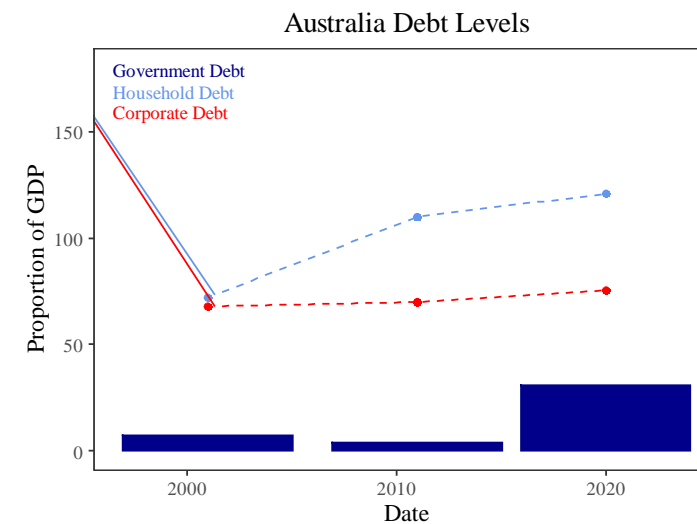
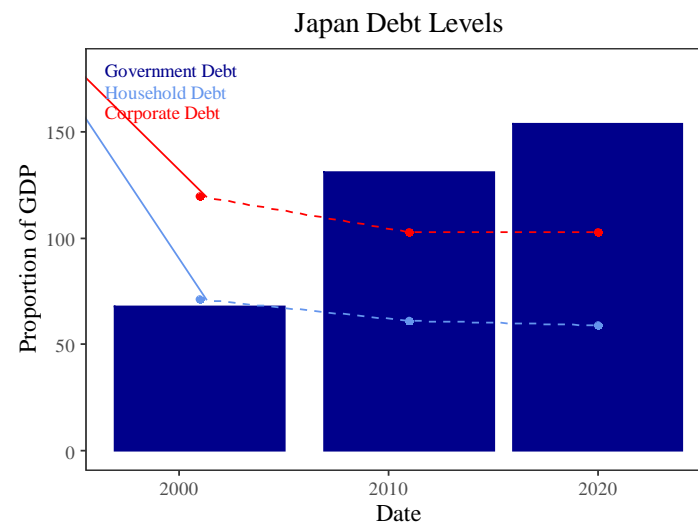
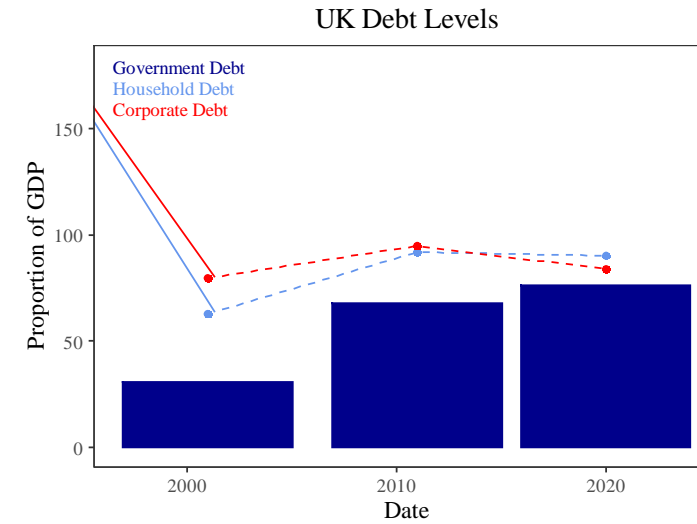
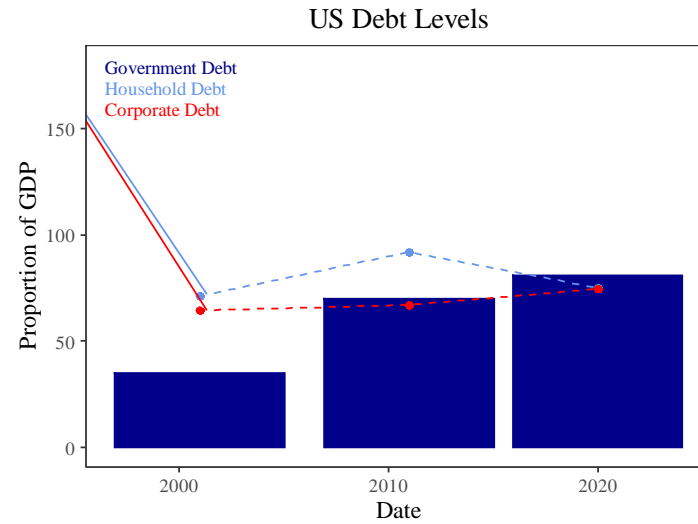
The Ineffectiveness of UMPs Cont.



The Effect on Debt Levels

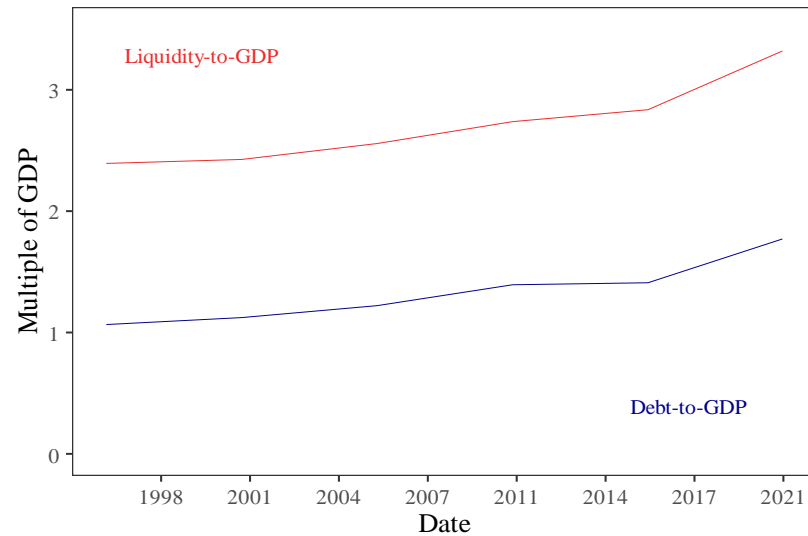
- Globally, government debt levels and measures of liquidity have nearly doubled since 2009 as a proportion of GDP.
- Australia's position is concerning, with a net asset position converting to a net debt position of 31 per cent of GDP.
- Corporate debt levels have risen. In the United States, corporate leverage stands at around 74 per cent of GDP, with nearly half of this debt rated speculative.
- Household debt has grown formidably. Australia leads the way in this respect, with household debt exceeding 100 per cent of GDP.
- Virtually all forms of debt have seen remarkable growth under loose monetary frameworks. Due to the pandemic, they are expected to continue increasing.

Aggregate Debt Levels

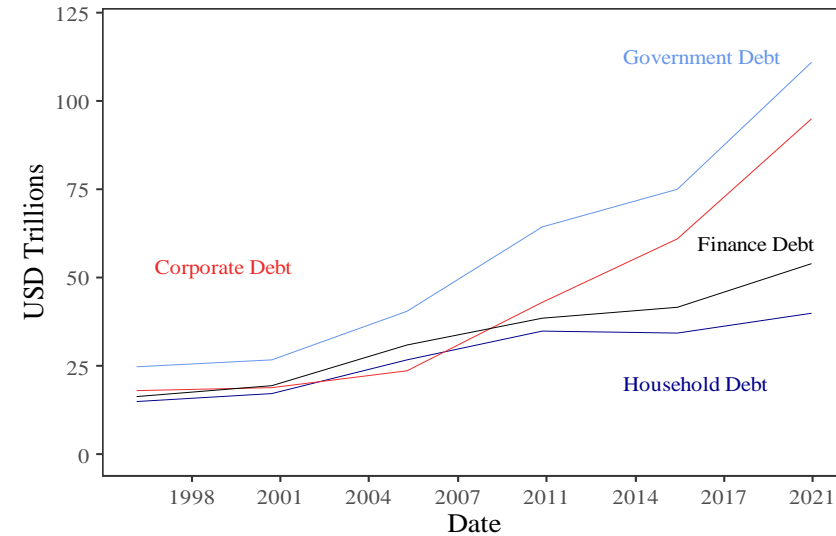


Aggregate Debt Cont.

Global Debt & Liquidity



Public & Private Debt

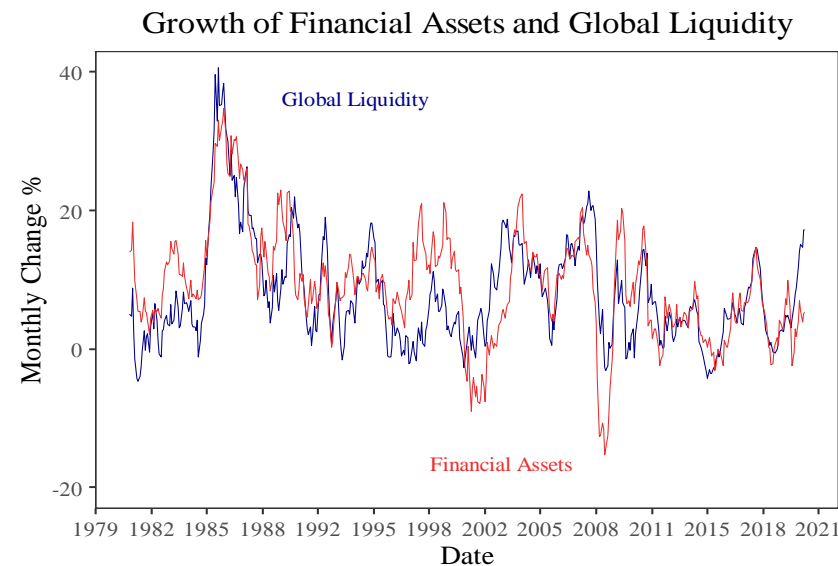


The Question of Reversibility

- The rapid increase in debt issuance raises the question as to whether a smooth reversal of policy settings can occur without igniting significant market volatility.
- The '*Taper Tantrum*' of May 2013 is one such example of market instability due to the Federal Reserve's commentary of policy normalization (Kawai, 2015).
- More recently, the Federal Reserve attempted to normalize QE from 2017 onwards, resulting in significant market volatility and funding pressures in short-term cash markets in November 2018, prompting a return to expansionary policy.

The Fallacy of Inflation

- While significant central bank stimulus has been implemented, a lack of consumer price inflation has been evident.
- Asset prices have absorbed the inflationary effect. The correlation between growth rates in global liquidity and financial asset prices reveals the dominant pass-through of the asset price channel:



GRS 1989

- GRS proposes an intuitive framework to measure the ex-ante efficiency of a given portfolio.
- We use the logic in this framework to illustrate the difficulties posed by exuberant central bank balance sheets on creating mean-variance efficient portfolios.
- We begin by stating the mathematical tautology of Markowitz (1952):

$$E[R_i] = E[R_{z,p}] + \beta_{i,p}E[R_p - R_{z,p}] \quad \forall i$$

- Similarly, the seminal CAPM (Sharpe, 1964; Lintner 1965) is given as:

$$E[R_i] = R_f + \beta_{i,m}E[R_m - R_f] \quad \forall i$$

GRS 1989 Cont.

- The equality between the two expressions implies that to satisfy the mathematical tautology, the market portfolio must be efficient.
- To test this theory, GRS propose a multivariate regression of **any** portfolio having its efficiency tested:

$$\tilde{r}_{i,t} = \alpha_{i,p} + \beta_{i,p}\tilde{r}_{p,t} + \tilde{\varepsilon}_{i,t} \quad \forall i = 1, \dots, N$$

- Taking expectations gives:

$$E[\tilde{r}_{i,t}] = \alpha_{i,p} + \beta_{i,p}E[\tilde{r}_{p,t}] \quad \forall i = 1, \dots, N$$

- And the necessary first-order condition of the CAPM is:

$$E[\tilde{r}_{i,t}] = \beta_{i,p}E[\tilde{r}_{p,t}]$$

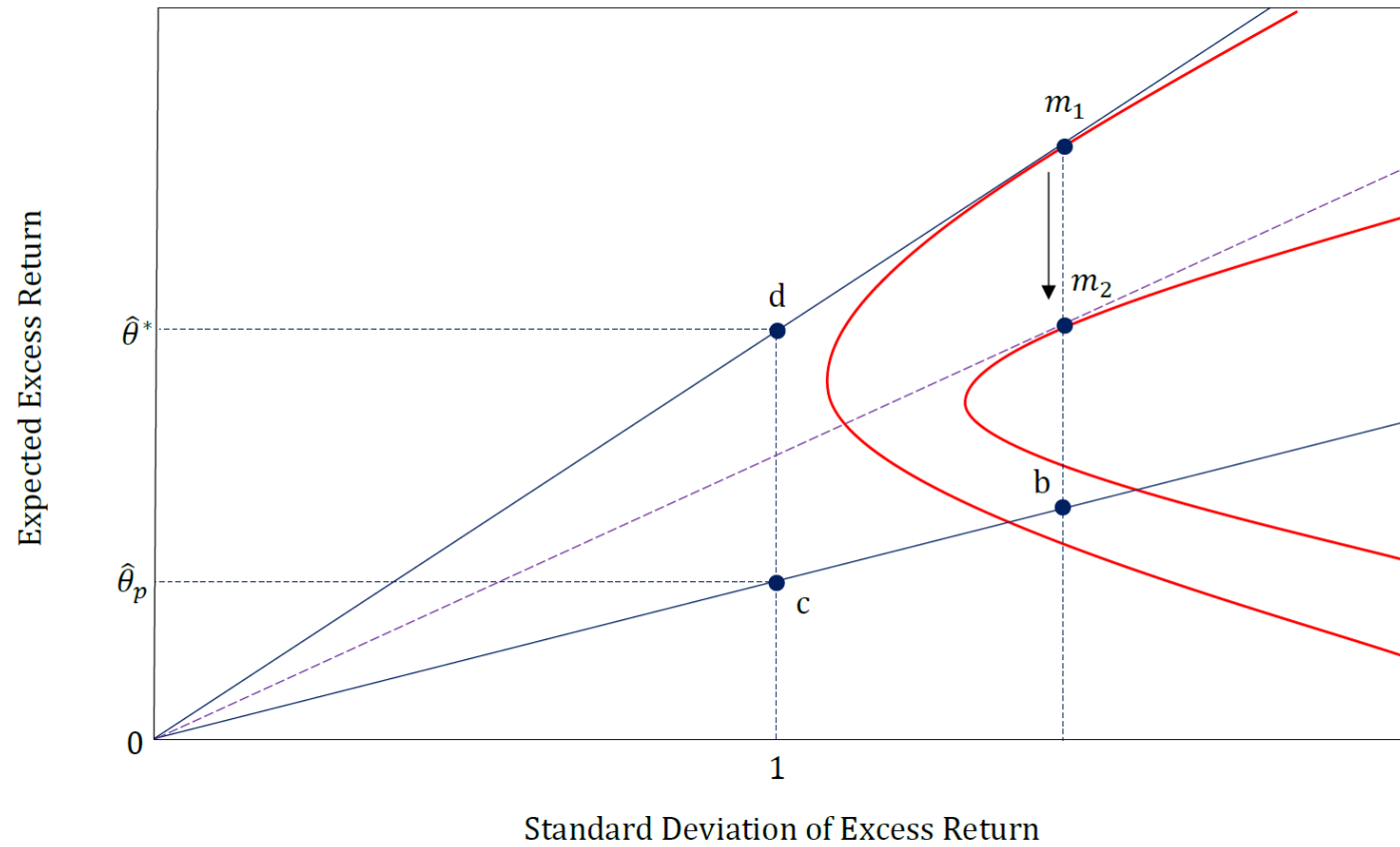
GRS 1989 Cont.

- GRS equate the expectation of the regression to the first-order condition of the CAPM to get the following null hypothesis of ex-ante efficiency:

$$\begin{aligned}\alpha_{i,p} + \beta_{i,p}E[\tilde{r}_{p,t}] &= \beta_{i,p}E[\tilde{r}_{p,t}] \\ \Rightarrow \alpha_{i,p} &= 0 \quad \forall i = 1, \dots, N\end{aligned}$$

- They test this hypothesis using a non-central F distribution with an intuitive graphical representation. We use this representation to highlight the effect that an easing of policy settings can have on the ex-post frontier of risky assets.
- Empirical evidence of this effect has been documented in the literature (see Shah et al., 2018; Joyce et al., 2020).

GRS 1989 Cont.



Implications of QE policies

- Despite evidence of unfavorable effects stemming from UMPs, global debt levels continue to scale new highs due to the pandemic.
- A narrative around the adoption of UMPs as permanent components of the central bank toolkit has emerged, contradicting the discretionary nature of these policies (see Bernanke, 2020).
- Central bank stimulus may cause asset price bubbles. Such a possibility must be more closely examined.
- Central banks must also appreciate that savers, renters, and younger generations are disproportionately affected by QE policies.
- Macroeconomic policies should be in harmony with Volker's standard (Volker and Harper, 2018), maintaining the value of the currency.

Conclusion

- The expansionary nature of central bank policies has resulted in exuberant asset prices, high debt levels, and an undermining of the sustainable foundations that underpin robust macroeconomic policy.
- The question remains as to whether normalization of policy can be achieved without significant market disruption.
- Framing macroeconomic policies around medium-term targets fosters flexibility and an ability to cope with peaks and troughs.
- Escaping the liquidity trap requires the help of governing authorities who are already under the strain of COVID-19.

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Questions/Feedback

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