



## ABSTRACT

This article investigates effects of the global financial crisis (GFC) as well as the euro zone crisis on the position of US dollar as a key currency. We base on a money-in-theutility model to analyze empirically whether the two crises changed a coefficient on real balance of US dollar in the utility function or its contribution to utility. An empirical result is that the contribution of US dollar to utility decreased during a period when financial institutions faced the US dollar liquidity shortages. The liquidity shortage decreased the contribution of US dollar to utility during the global financial crisis.

## KEY WORDS:



## Notes

<sup>1.</sup> The FRB concluded new currency swap arrangements with the European Central Bank (ECB) and the Swiss National Bank on 12th December 2007. Afterwards, it increased amount of currency swap arrangements and concluded them with other central banks.

<sup>2.</sup> Ogawa and Sasaki (<u>1998</u>) used the similar theoretical model to conduct an empirical analysis on the USD as a key currency.

<sup>3.</sup> Calvo (Calvo <u>1981</u>, <u>1985</u>), Obstfeld (<u>1981</u>), Blanchard and Fischer (<u>1989</u>).

 $^{4.}$  The liquidity cost is an enactment cost in the Baumol (<u>1952</u>) - Tobin (<u>1956</u>) type of transaction demand for money model.

<sup>5.</sup> The illiquidity cost is a penalty cost of cash shortage in a precautionary demand for money model according to Whalen (Wharlen <u>1966</u>).

<sup>6.</sup> See Appendix for derivation of <u>Equations (8a)</u> and (<u>8b</u>).

<sup>7.</sup> We may use a method of Fama and Gibbons (<u>1984</u>) to estimate expected inflation rates. A sample period is much shorter than that by using the ARIMA model due to data constraints if we use the method. For the reason, we choose to use the ARIMA model.

<sup>8.</sup> See Feenstra, Inklaar, and Timmer (<u>2013</u>) for reference.



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