Fixing the EURODOLLAR SYSTEM via Inclusive Collateral Reform

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Abstract

The Eurodollar system's unraveling underscores the need to identify a new collateral foundation for interbank-operated global funding markets. Given the size of the major central bank's balance sheet and ever-expanding presence of the central bank balance sheet, greasing the global financial system's wheels requires the utilization of Asian collateral for financial plumbing. To ease the burden on excess demand for safe assets, international community must review assets of Asia as eligible cross-border collaterals, which would help restore balance in overstretched global financial system.

Introduction

Ever since the repo market turbulence in 2019, global dollar liquidity situations have remained volatile and provided a background for more proactive policy decisions by the FED. Thanks to their timely interventions, the world is experiencing a stable condition even with lingering uncertainties about the underlying trend. Nevertheless, the Covid-19 shock has shattered the fragile conditions that this underlying uncertainties would remain for quite some time in the future. It remains unknown that even the FED can hardly provide an extra buffer for financial stability if the current situations prolong into the future. Moreover, the world is facing an unprecedented problem in a fragmented governance framework, which would further exacerbate fiscal conditions in most major economies worldwide. The question boils down to the global financial system overhaul and how overly dominated Eurodollar system can balance the global credit supply system and avoid financial debacles associated with the significant financial plumbing issues.

This paper underpins the connected global collateral framework as the underlying foundation for future financial stability. This diagnosis emanates from the observation that the central banks worldwide take actions that contradict what they strive to achieve by harming their positions as pillars of ultimate trust. Most activities are driven by the situation's

exigency and are not founded on central banks' premises as the leading authority for the monetary policy. Besides unusual circumstances, the central banks with its policy mandate are committed to maintaining financial stability at all costs. However, exigency always prompts short-term responses that tend to delay or ignore actions on a more fundamental level. It is undeniable that the current global financial system, a de facto dollar system, cannot deliver results for the world on a longer-term basis, creating situations that only exacerbate already grave conditions globally. Even before the Covid-19, the global financial system has experienced severe problems, and the FED interventions have resulted in a colossal balance sheet of the FED, where usual functions of the market players are set aside. The current system can no longer handle global shocks like the one we are experiencing, given its fragmented governance that hinges on national mandates.

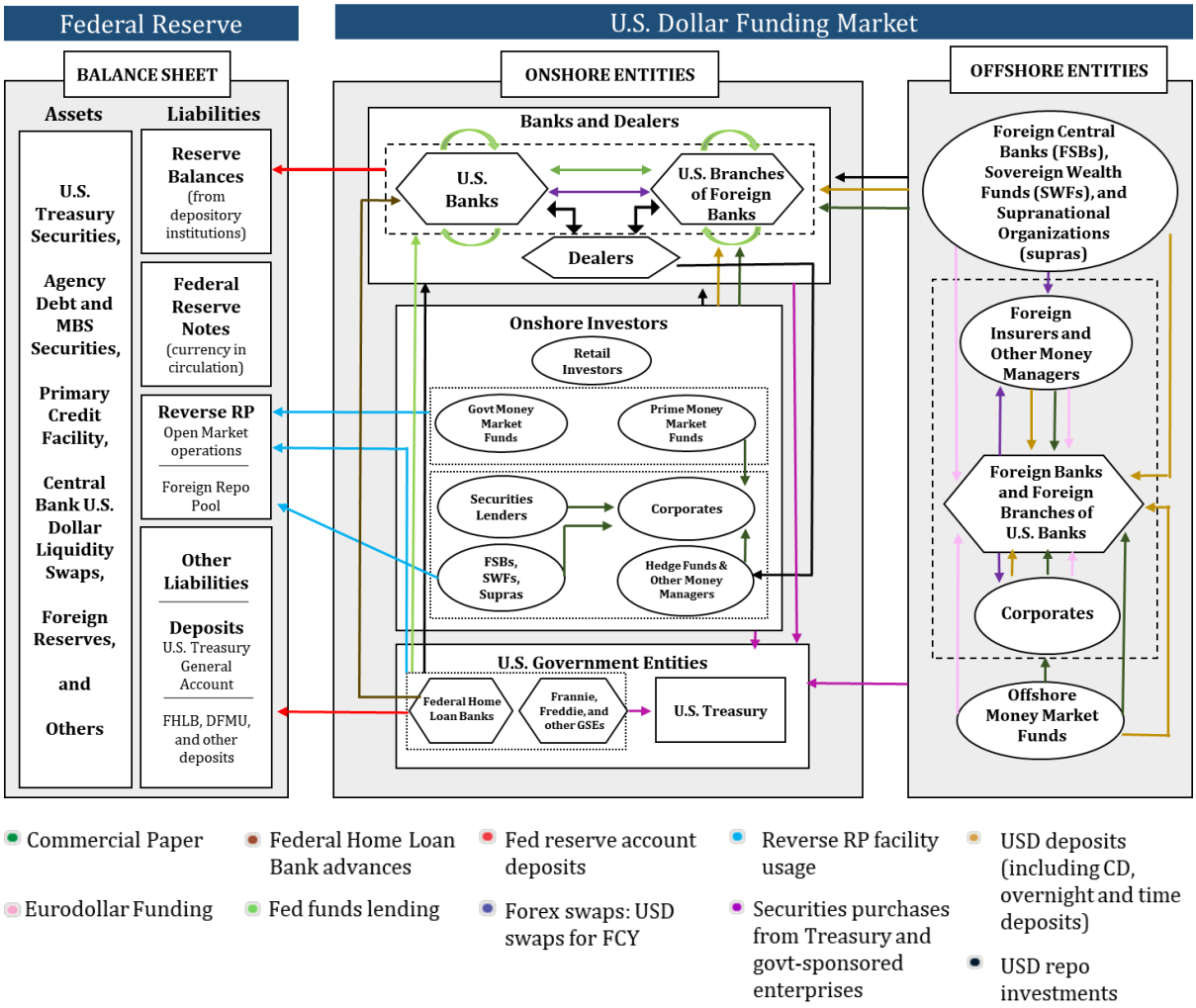
The root cause of the prevailing dollar system is its overstretched footprint that does not sit on a comprehensive collateral pool. Extra efforts are directed toward securing additional dollar funding, precipitating undue pressure on the already fragile system that the Fed is only partially monitoring. Despite quantitative easing unlimited, the global shortage of dollar liquidity still shows up in various risk spreads. The policy-supported dollar provision cannot reach periphery countries with a limited collateral base. Therefore, things call for more fundamental reform of the global financial system with a much segmented collateral pool that does not include prime assets from Asia. Recognizing the eligible Asian assets as cross-border collateral is the core plan that needs to be discussed seriously before embarking on reform efforts for the global financial system. Without fixing this fundamental problem, it is unavoidable that we continue to chant the underlying non-economic factors instead of addressing the ultimate causes of global economic troubles. It is crucial to consider some of the neglected pieces to assess the problems before identifying non-economic factors as something impossible.

The Prevailing Global Financial System

Earlier, Claessens et al. (2012) have shown that the global financial system has become very complex and dependent on many players active in the shadow banking system, as seen in <Figure 1>. The shadow offshore dollar market calls itself as the "Eurodollar system," referring to its outside nature of the core US banking system in extending credit and payment services globally. Complicated nexus of commercial banks for offshore banking activities

with interdependent liability positions across the world have primarily supported the global economy. However, today's system's salient feature has failed to cover various new developments in the world. Overall, the world economy has grown exponentially, building on the vast Eurodollar system which is not directly regulated or monitored by central agencies. The plan faces unprecedented challenges due to the erosion of the offshore banking system's trust foundation after the global financial crisis. The role of collateral has become much more critical. Yet, the world is not ready to deal with the collateral shortage and plumbing issues in the Eurodollar system. Asia is not even preparing for collateral eligibility criteria, prompting situations that call for even more collateral from outside.

<Figure 1> Mapping of U.S. Dollar Funding Flows



Source: Federal Reserve Bank of New York

The global financial system has inherent problems using the collateral pool that are dollar-centered and Eurodollar system engineered features. These features generate market frictions

in the core Eurodollar system when the eligible collateral pool is narrowly defined. Without the interventions, market players cannot access the right collateral and cannot broadly use cross-border collateral. The only available options for participating dealer banks are tied with the central bank operations. What the offshore Eurodollar system means to global US dollar liquidity is that the dollar rally would remain strong for some time in the future. As central bank reserve assets are primarily denominated in USD, the dollar is standardized in international trade settlement, putting it at the center of global system.

Meanwhile, the Eurodollar system allows G-SIBs (Globally Systemically Important Banks) to operate out the Federal Reserve's supervision to create US dollar currency. Powerful G-SIBs are in actual control of creating US dollar money supply on global markets via the Eurodollar system. There are massive amounts of USD supply being made outside of the banking system without the Federal Reserve's regulatory oversight (Snider, 2019).

Interbank Market and the newly Collateralized System

According to contributions by Snider (2019), money multiplier of the deposit-based banking system has a background in the Bretton Woods' gold-exchange system. In contrast, a credit-based offshore system based on wholesale interbank markets of dynamic bank liabilities has been developed ever since. Banks are using different funding sources outside of both the US boundary and the traditional definition of money. In reality, the banks with international operations, particularly the G-SIBs, have operated in the shadows outside of the US banking system by creating liabilities on balance sheets on banks outside the US. A few G-SIBs can manipulate the system to make money supply as if they are central banks. The term Eurodollar represented the system of interbank liabilities that real economy participants were using once they connected (Snider, 2019). They create and utilize different monetary forms to complete real-world transactions via repo markets and Eurodollar liabilities. These liabilities and wholesale funding techniques have not been well-defined under official definitions. There are new networks of interbank relations that add to the monetary survey. Eurodollars again must be treated exclusively as investments because these were mostly the store of value function of money and not as a medium of exchange. The Eurodollar has evolved into various interactions with its ecosystem offshore. This interbank offshore accounting system transformed what used to be deposit liabilities into interbank borrowings. On top of this, the communication technology revolution in the 1980s and interest rate swaps

and Eurodollar futures have resulted in the Eurodollar system's current form. Even the term interbank borrowing itself becomes exponentially more complicated. Globally connected financial institutions may choose how to fill in the vitally important global reserve currency role. In short, the Eurodollar system could supply what was needed without politics and official interference or even public scrutiny.

Eurodollar System and the Triffin's Paradox

The Eurodollar system has effectively helped the US dollar system avoiding the Triffin paradox by extending credit globally without interfering with the internal constraints. Not only do we have to be aware of all of the liabilities in that chain in terms of risk and potential bottlenecks, but also the liquidity risks in local system. These significant international capital flows between countries potentially have geopolitical ramifications. De jure, the Federal Reserve effectively regulates the US dollar in the States. A massive amount of this overall global US dollar system operates in the shadows outside of anyone's regulation. In essence, it is controlled by systemic dependencies on G-SIBs, which has shown its limit in 2009. The G-SIBs have recognized that originating significant transactions in the US may lead to having the ability to generate massive loans and structured products and swaps and various kinds of elaborate derivatives in the shadows outside of the US banking system where they're virtually unregulated. The real problem was the offshore Eurodollar system's breakdown, which led to the great financial crisis, remain unaddressed. Foreign banks domiciled outside the US remain desperate for US dollar funding to necessitate interventions by local central banks and the FED’s extra support for swap arrangements. The official intervention has been an ineffective substitute for these dynamic networks of Eurodollar relations, as revealed by the emerging markets’ even greater reliance on the G-SIBs for dollar funding.

The FIMA Repo Facility: The Fed's Solution to the Global US Dollar Crunch

Beginning on August 9^{th,} the LIBOR and federal funds uncharacteristically jumped on August 10th. There are many explanations for this, where LIBOR increased while federal funds plunged below the target, which implies banks were hoarding liquidity (Correa, Du, & Liao, 2020). One of the Eurodollar system's primary innovations is that the US dollar is still

the most powerful currency. However, its functions and operations are not as governed as by the Federal Reserve. Somehow, the international bankers, mostly G-SIBs, have figured out how to do most complex and sophisticated financing transactions in the shadows outside of regulatory oversight and control.

The Federal Reserve announced to build another liquidity facility in March 2020, aimed at central banks and international institutions. It is a temporary repurchase agreement facility for Foreign and International Monetary Authorities (FIMA) called the FIMA Repo Facility. It intends to support the smooth functioning of financial markets, including the US Treasury market, and thus maintain the supply of credit to US households and businesses — a global solution with domestic implications, indeed. This instance demonstrates that the Fed functions as an international central bank, as we believe it should give the US dollar's reserve status. However, the FIMA Repo Facility targets domestic benefit primarily, a better-functioning domestic bond market.

Because the Fed has sole authority to issue USD, foreign central banks have been selling Treasuries for acquiring dollars, disrupting the bond market. The FIMA Repo Facility accordingly allowed the Fed to lend its US dollars to foreign central banks, relieving the shortage of dollars and stabilizing global financial markets. They reduce the need for foreign central banks to sell their Treasuries outright to raise US dollars, which help prevent disruptions to the Treasury market and upward pressure on yield.

We accept this new facility as a complement to, and an extension of, the swap lines the Fed set up with major central banks. It allows central banks to access dollar liquidity without explicit swap lines. As with its swap lines, the Fed's lending moves directly to the central banks, not to any foreign private-sector institution. Above all, the FIMA Repo Facility reduces foreign central banks' need to sell their Treasury securities outright and into illiquid markets to raise US dollars. This extra opportunity should help prevent disruptions to the Treasury market and upward pressure on yields. This new facility is also favorable for emerging market economies whose central banks will have easier access to US dollar liquidity to relieve their bond markets and banks' strains. By easing the US dollar run, these Fed facilities should alleviate some of the US dollar's upward pressure.

The FIMA Repo Facility would allow foreign central banks to temporarily raise dollars by selling US Treasuries to the Fed and agreeing to repurchase them at the repurchase agreement's maturity. The term of the contract will be overnight but can be rolled over as needed. The transaction would be conducted at an interest rate of 25 basis points over the interest rate on excess reserves (currently at 0.10%), which generally exceeds private repo

rates when the Treasury market functions well. As a result, the facility targets interventions in unusual circumstances. US Treasuries fully collateralize the repo transactions, so the Fed is taking no credit risk. The transactions are in US dollar terms only, so the Fed is taking no exchange rate risk.

The Case of Asia for Inclusive Collateral for Global Financial Stability

Despite substantial efforts by the Fed, the core problem of today's Eurodollar system remains mostly unaddressed. Roughly speaking, the system is not regulated, but a global shadow banking system runs on GSIB's interbank activities. This picture has remained unchanged until the global financial crisis when the collateral has become an essential link for funding and other transactions. The temporary fixes have resulted in an increasing gap between the demand for safe assets and the lack of pledgeable collateral in most countries. As such, the underlying cause of most troubles in today's financial market is related to a segmented collateral framework that brings about market frictions worldwide. Increasing concentration in the Eurodollar system that can handle cross-border collateral-based transactions creates lots of frictions in the heavily integrated US funding market. The concentration of trust in the form of "safe asset collateral" is backfiring to threaten the very core of the prevailing global financial system. The resulting market frictions have forced the FED liquidity injection detached with a sound collateral base. Therefore, it is crucial to secure a comprehensive collateral framework to improve global financial plumbing and allow unhindered cross-border transactions. For this to happen, it requires renewed coordination among central banks in constructing a comprehensive collateral framework.

Given the critical role of dollar-denominated collateral in global financial plumbing, continued repo market frictions with the cash-strapped counterparties have resulted in the FED's subsequent printing money to sustain market functioning. The gap between the available collateral for repo transactions and usual cash providers has been increasing due to many identifiable factors, e.g., tax, GSIB charges, etc. Yet, the underlying cause has been the vast footprint of the FED that replaced usual market functioning among regular players. Given the large pool of market participants in the dollar funding market, dealer banks' limited role with reduced balance sheet space has resulted in excess holdings of collateral that could not have been exchanged with cash until the FED stepped in for cash injection. In other words, there are many aspects related to the narrow definition of safe assets, which have

resulted in today's standing repo facilities. In short, the FED's policy drive has become the decisions of the global dimension, which frequently triggers excess demand that cannot be met by the financial market participants but by the FED. It is a worrisome development since the FED's role is becoming more critical for financial stability. Yet, the core market functioning with the active role of market participants has become more difficult.

Because of the FED's unique role to provide dollar liquidity for global participants, access to dollar-denominated collateral remains a critical factor for international access. In reality, dollar collateral remains the only way to secure stable dollar funding. However, sizable dollar assets are stored in Asian markets where repo-based cross-border market transactions remain negligible due to complex internal regulations and lack of market infrastructures. As a result, there is a global imbalance in collateral based financial system such that some experience excess collateral, while the others experience dollar shortage to exacerbate plumbing issues. Global dollar liquidity machinery experienced a significant breakdown because usual players' hands are tied for various reasons. The growing demand for dollar forces the FED to print more money directly into the repo market. In other words, the limited role of dealer brokers in the shadow banking dominant system restricts financial plumbing, which requires the permanent FED intervention. The FED's standing repo facility essentially replaces the market-based liquidity creation. However, there is a colossal collateral pool with limited repo transactions, and the only dollar market facilities in the US cannot generate enough dollar liquidity due to market frictions. In short, the narrow definition of collateral has impacted the core of the global financial system.

Given the collateral role in the securitized lending market and the segregated collateral practices, it is vital to add a new group of the Asian prime collateral and its required machinery to the existing pool. It is time to expand the collateral pool and utilize it to ease market frictions. The financial system is more balanced without incurring the need for sustained FED intervention, further exacerbating the global situation. Collateral has been the underlying trust foundation for capital flow. Tightly controlled legacy collateral framework has lost its relevance to integrated market conditions that precipitate excess demand for safe assets. Asia's unexploited collateral resources have put lots of strain on the global financial system. The paper highlights that inclusive collateral that comprises global footprints would improve international financial plumbing and maintain global financial stability.

Conclusion

While the Eurodollar system's evolves into the one that hinges on collateral, the global financial system raised a serious question of whether the international system allows a more comprehensive portfolio of the collateral pool and transactions in remote areas such as Asia. This paper underscores the importance of identifying and activating collateral use in Asia for recovering the balance in the global financial system. Too many resources narrowly limited in the name of safe assets are earmarked as the pillar for the financial system, which resulted in excessive demand for safe assets, massive capital uphill, and misallocation of resources on a global scale. In reality, Asia has not even recognized its role in supplying eligible collateral for financial plumbing due to its initial lack of market acceptance and poor infrastructures to handle cross-border transactions. We specifically highlight the problems of segmented collateral for cross-border transactions. They remain the underlying cause of market frictions and boost the demand for safe assets, which subsequently perpetuate situations that call for misguided policy actions that spell further trouble going forward. Even late in the game, it is vital to recognize the importance of eligible assets for cross-border transactions in Asia to stem the excessive reliance on legacy safe assets. Without the compensatory efforts, excess demand for safe assets forces central banks worldwide to print money to reduce the huge demand gap for collateral in the secured lending market.

In essence, modern-day financial system hinges on shadow banking that sits on the banking and nonbanking arena with less than adequate regulatory oversight. Since the global financial crisis, the tightened regulatory burden on banking activities has straight-jacketed overall financial system functioning. Central banks have picked up the resulting market vacuum created due to its impasse. If the arena is maintained by massive institutions that replace traditional dealer banks' roles, it is rather hard to expect the financial system's speedy normalization. In reality, we have replaced market functioning with nonmarket interference by the authorities that have left a more significant problem of dealing with the actual digital age's financial needs.

We laid out the observations that skewed financial flows prompted by the segmented collateral foundation have misallocated resources, resulting in chronic depression, liquidity boom, and lack of confidence in the conventional monetary system. In essence, the Eurodollar system can no longer sustain global financial plumbing given its limited collateral pool and restricted use of plumbing machine. Strikingly, Asia remains in the shadow in terms

of utilizing its prime collateral for cross-border activities. We need to break the hard mantle for possible breakthrough in global financial plumbing. The lack of proper recognition of collateral in the region has contributed to over-reliance on safe assets and negative interest rates globally.

Looking into the future, this problem of shaky collateral foundation gets even more serious when digital transformation is beginning to take root in various activities. With a poorly defined collateral base, the digital transformation only allows a viable market position for big techs and depresses the purported multisided interactions in scalable platform economy. It is a Catch 22 situation since short-term results can only be found by incumbents shaking hands with new entrants. Still, legacy players' dominant role would interfere with broad-based digital transformation with expected interactions in a digital network. The only practical way to bring balance into the discussion is to revise the collateral framework toward a more inclusive one. Asia's eligible asset can be utilized as cross-border collateral for repo and other activities. It is too late to start this fundamental move, but this groundbreaking exercise is a must before we expect any expansion in the financial horizon without sacrificing financial stability.

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