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Factor Based Asset Allocation

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1. Introduction

What is Factor Based Investing?

Factor Investing has a well established and increasingly important role in investors' portfolios. More than 70% of institutional investors surveyed in 2018 were using factor strategies according to the Invesco Global Factor Investing Study. Further, Factor Investing has also become attractive for private investors as investors are constantly seeking a better understanding of the basics that drive returns and reduce risks.

An increasing number of funds are looking to adopt "risk-oriented" asset allocation policies instead of the traditional "asset-oriented" allocations during the times of credit crunch [1], thus, Factor based investment allocation becomes a popular trend in such tight credit conditions. Many institutional investors seem to have not understood the risks they were taking during the credit crisis of 2007-09, whilst the "asset-oriented" approach did not deliver the diversification benefits that the investors had anticipated. The reason being that all the assets in their portfolios seemed to have moved in the same direction. Thus, Factor-based investing framework attempts to identify and allocate to factors expected to earn a positive return premium over the long term, which are named as "compensated factors". Factor investing is also a strategy, which chooses securities on attributes that are related with higher returns.

Moreover, factor-based investing is a framework that integrates factor-exposure decisions into the portfolio construction process. There are two main types of factors that have driven returns of stocks, bonds, and other factors; these are macroeconomic factors and style factors. The former captures broad risks across asset classes while the latter aims to explain returns and risks within asset classes. Some common macroeconomic factors include credit, inflation, and liquidity whereas style factors embrace style, value, and momentum.

2. What drives Institutional Investors towards Factor Based Investing

Many institutional investors have been employing factor research for decades, whether they realize it or not. As institutional investors realize lower returns for most asset classes, their need for alpha (alpha is a measure of the performance of an investment as compared to a suitable benchmark index) will have many of them gravitating toward factor investing. Factor investing gives most investors a competitive edge within the portfolios they manage and it also means better liquidity and lower fees, attributes that become more important in low-return environments. Naturally, a recent

1. A **credit crunch** (also known as a **credit squeeze** or **credit crisis**) is a sudden reduction in the general availability of loans (or credit) or a sudden tightening of the conditions required to obtain a loan from banks.[1] A credit crunch generally involves a reduction in the availability of credit independent of a rise in official interest rates. (source ; Wikipedia)

survey by Global Beta advisors showed that institutional investors plan to increase their factor allocations from 12% to 18% over the next five years.

3. The purpose of investing based on Factors

From a theoretical view, factor investing is designed to enhance diversification, generate above-market returns whilst managing risk. Portfolio diversification has always been a popular safety method, but the gains of diversification are lost if the chosen securities move in lockstep with the broader market. For example, an investor may choose a mixture of stocks and bonds that all decline in value when certain market conditions arise. The good news is factor investing can offset potential risks by targeting broad, persistent, and long recognized drivers of returns.

Traditionally portfolio allocations, like 60% stocks and 40% bonds, are relatively easy to implement, thus, factor investing can seem overwhelming given the number of factors to choose from. Rather than look at complex attributes, such as momentum, beginners to factor investing can focus on simpler elements, such as style (growth vs. value), size (large cap vs. small cap), and risk (beta). These attributes are readily available for most securities, and listed on popular stock research websites. According to Prof. Andrew Ang at Colombia Business School, *"Factors are to assets what nutrients are to food…Factors are the nutrients of the financial world. Factor theory is based on the principle that factor risk must be compensated and factors are the driving force behind risk premiums…This is the modern theory of asset pricing: assets have returns, but these returns reflect the underlying factors behind those assets."*

4. Foundations of Factor Investing

- **Value**: Value aims to capture excess returns from stocks that have low prices relative to their fundamental value. This is commonly traced by price to book, price to earnings, dividends, and free cash flow.
- **Size:** Historically, portfolios consisting of small-cap stocks exhibit greater returns than portfolios with just large-cap stocks. Investors can capture size by looking at the market capitalization of a stock.
- **Momentum:** Stocks that have outperformed in the past tend to exhibit strong returns going forward. A momentum strategy is grounded in relative returns from three months to a one-year time span.
- **Quality***:* Quality is defined by low debt, stable earnings, consistent asset growth, and strong corporate governance. Investors can identify quality stocks by using common financial metrics like return to equity, debt to equity and earnings variability.
- **Volatility**: Empirical research recommends that stocks with low volatility earn greater risk-adjusted returns than highly volatile assets. Measuring standard deviation from a one- to three-year time frame is a common method of capturing beta.

Factor exposures can be compensated or uncompensated, which is a critical distinction in any factor-based investing framework. An important point to note is that not all factor exposures are expected to earn a return premium over the long term. The market factor, for example, has historically earned a return premium, and the general expectation that this premium will persist is what has encouraged investors to purchase broadly diversified stock portfolios. In contrast, some factor exposures are not compensated. Although a relationship may exist between the variation in returns of an investment and a particular factor, it does not hold that this risk will be rewarded: The factor may simply reflect an idiosyncratic risk that can be removed through effective diversification. For example, the company specific risk of a single stock should not have an impact on the performance of an effectively diversified portfolio.

5. Importance of Factor based investments

An in-depth study of factor exposures pave the way for the investors to gain knowledge how different factors will generate returns in various sizes.

Research into the factor framework has flourished in recent years and has found that the approach has the potential to improve risk-adjusted returns when used in conjunction with a range of investment portfolio configurations. Research studies have compared the performance of factor portfolios to a traditional 60% U.S. stocks and 40% U.S. bonds portfolio (Bender et al., 2010); diversified funds that include global stocks and bonds, emerging markets, and real estate and commodities (Ilmanen and Kizer, 2012); alternative asset portfolios (Bird, Liem, and Thorp, 2013); and portfolios of active managers (Bender, Hammond, and Mok, 2014). This research has demonstrated that, historically, factor-based investing has improved risk-adjusted returns when combined with a range of diverse portfolios.

Accordingly, the factor-based framework has given the investors the prospect of shifting their focus of the allocation decision from asset classes to factor exposures. The reason why factors are so important is that traditional asset classes will generally have exposures to the same underlying risk factor. An asset allocation based on equities, bonds, and alternatives may eventually give very little diversification in terms of the underlying factors that drive returns. Thus, by focusing on the factors, an investor can better grasp which asset classes will provide the desired risk exposures. As Ang notes, "Factors allow a more holistic view of the investment and business activities of a fund."

6. Main types of Factors

There are two main types of factors: macro and style.

i. Macro factors - drive returns across asset classes. According to investment company BlackRock's research, there are 6 factors account for more than 90% of these returns, with the three most important being economic growth, real rates and inflation. Credit, emerging markets and liquidity are the others. U.S. treasuries are driven by real interest rates and inflation while equities are largely exposed to risks related to the strength of economic growth.

ii. Style factors - explain returns within asset classes. Academics and practitioners have long found that cheap stocks (value), stocks that are trending (momentum) and stocks with higher quality earnings (quality) to name a few factors—tend to outperform the market over the long run. The same style factors in fixed income, commodities, foreign exchange and other asset classes are also observed.

6.1. Factors we require

Figure 1 Stock and Bond factor exposure

Description

Market	Stocks have earned a return above the risk-free rate
Value	Inexpensive stocks have earned a return above the expensive stocks
Size	Stocks of small companies have earned a return above stocks of large companies.
Momentum	Stocks with strong recent performance have earned a return above stocks with weak recent performance.
Low volatility	Stocks with low volatility have earned higher risk-adjusted returns than stocks with high volatility.
Term	Long-maturity bonds have earned a return above short-maturity bonds.
Credit	Low-credit bonds have earned a return above high-credit bonds.

Source :Vanguard Research

The optimal mix of factors will vary across investors, just as different people will have different nutritional requirements. Some of standard options which can be considered as follows:

i. Balanced macro factor exposure. A simple, but robust, benchmark would hold equal weights in the six macro factors to ensure the portfolio has maximum diversification. But, some investors may want larger weights in some factors in line with their preferences. For example, an investor concerned about drawdowns may allocate more to defensive factors, such as real rates and inflation.

ii. Style factor exposure. Style factors such as value, momentum, quality and size can enhance returns relative to a market-capitalization benchmark. For the more risk-averse investor, minimum volatility strategies can help reduce the drawdowns of equities while maintaining long-term return potential.

iii. Both macro and style factors. Macro factors at the whole portfolio with targeted style factors within certain asset classes could be combined. Because returns from style factors can be uncorrelated with macro factors, if implemented in a long short approach holding both macro and style factors can be highly diversifying.

6.2. Factor selection criteria

i. Based on economic theory: Factor should have an economic foundation that explains the rationale for the risk premium associated to the factor. They have to represent a systematic risk, not an idiosyncratic.

ii. Robust to changes in the economy and regulation: If a risk premium disappears if a new regulation is imposed, or the economy changes, that premium cannot be considered a factor.

iii. Long return history (including different scenarios): Factors' risk premium is the reward investors get for bearing the potential losses under negative scenarios. For investors to assess the risk-return profile of a factor, it should have a long history which shows the behavior of the factor in adverse scenarios.

iv. Implementable and measurable: Factors must have metrics that allow investors to monitor their dynamics. With the purpose of generating factor strategies, there must be securities that allow investors to capture the risk premium from the factor.

Two points should be mentioned at the beginning:

First, the investors may intentionally or unintentionally already hold certain factor exposures within their portfolios. For example, a portfolio of stocks with low price/earnings ratios is likely to have exposure to the "value" factor. Second, the investment case for some factors is subject to ongoing debate namely, whether past observed excess risk-adjusted returns will continue going forward. A large range of factors have been analyzed and debated in the academic literature, and many of these have been used by investors. Figure 1 summaries seven commonly discussed factor exposures that are notable for both the extensive literature documenting each factor, and for the empirical evidence of historical positive risk-adjusted excess returns associated with them.

7. Factor - based investing and related theories

A profound academic literature is relevant to factor-based investing, starting with the capital asset pricing model (CAPM) of Treynor (1961), Sharpe (1964), Lintner (1965), and Mossin (1966). The CAPM proposes that the return on an investment is a function of its sensitivity to market risk, so that an investment with a high exposure to market risk, or a high beta, should earn higher returns. The CAPM is a single-factor framework whereby an investment's return over the long term is determined entirely by its exposure to the market factor. Hence, the only risk that should be rewarded is the market risk.

The arbitrage pricing theory (APT) was proposed by expanding the CAPM, Ross (1976), and is in contrast to the CAPM, allows for multiple sources of systematic risk. Under this framework,

multiple systematic risks (risk factors) may earn a return premium. Regrettably, the theory did not specify what risk factors are rewarded. However, it is important to highlight that the APT provides a theoretical foundation for factor-based investing.

Although the CAPM provided the theoretical framework for pricing investments, the empirical evidence showed a different story. Beginning with Basu (1977), research began highlighting evidence that stock returns were related to stock characteristics. These relationships identified as anomalies, since they were inconsistent with CAPM theory. One of the first so-called anomalies identified was the size effect. Banz (1981) established that portfolios of small-cap stocks experienced higher risk-adjusted returns than portfolios of large-cap stocks. Fama and French (1992) highlighted the relationship between stock characteristics and returns. The Fama-French three-factor model emphasized that the return variability of stock portfolios can be explained by a portfolio's exposure to three factors, which are market, size, and value.

In addition to explaining returns on asset-class investments, research has demonstrated that excess returns generated by active managers can also be related to factor exposures. Bender et al. (2014) provided evidence that up to 80% of the alpha (excess return) generated by active managers can be explained by the factor exposures of their portfolios. Similarly, Bosse, Wimmer, and Philips (2013) demonstrated that factor gradients have been a primary driver of active bond fund performance. Both studies revealed not only that factors play a role in determining the returns of passive investments, but that they also appear to play a critical role in the returns of successful managers of active portfolios.

8. Factor Investing and Fixed Income Investments

9. Conclusion

Figure 2 Key Style Factors in Fixed Income Investing

Duration	- **The return of longer-dated bonds over shorter-dated bonds of similar credit quality** - A duration portfolio buys all treasury bonds across the maturity curve
Credit	- **The return of lower-rated credit over higher-rated credit of similar maturity** - A credit portfolio buys all credit bonds across the maturity and ratings spectrum
Value	- **The return of holdings bonds that are at a discount to similar bonds** - A value portfolio buys bonds with a higher spread than bonds with similar ratings in the same industry
Quality	- **High credit rating, low duration and low historical volatility** - A quality portfolio buys and sells the top 20% of bonds sorted on quality
Carry	- **Highest overall yield** - A carry portfolio buys the top 10% and sells the lowest 10% of bonds sorted by this metric
Liquidity	- **Age and size** - A liquidity portfolio buys the least liquid bonds and sells the most liquid bonds sorted by this metric

Source: Invesco. Simplified schematic representation for illustrative purposes only.

Generally, a market-cap-weighted index is both the best representation of an asset class and the best starting point for portfolio construction discussions. Investors who are interested in a factor-based investing approach, however, have additional and crucial issues to consider, including their tolerance for active risk, the specific factors which support their investment rationale, and the cyclical variation of factor-based returns. Empirical research has revealed that some common factor exposures can explain the returns on a diverse range of active investments. Hence, the investors may be able to replicate these exposures using factor-based investments. Moreover, Factor-based investing aims at achieving specific investment risk-and-return outcomes whilst reaching greater transparency, increased control, and lower costs.

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New Trends in using Currency World over: Virtual Currency

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This article on new trends in using currency world over intends to inquire about the changing perception of the usage of currency in the world. In the midst of digital revolution, also known as the third industrial revolution, starting from the latter part of 20th century, the inquisitiveness of ever changing perception on currency is being experimented with the latest developments of technology. This article intends to shed some light on the evolution of internationally accepted hard currencies and virtual currencies. Some literature on two arguments, i.e. demand for hard currency is growing versus demand for hard currency is declining that have caught the attention of the majority in the recent past, will also be discussed at the last section.

In the above scenario, reserve managers searched for alternative methods of increasing the return while ensuring the maximum safety of reserves. In doing so, yield curve, being the relationship between bond yields and bond maturities can be used as a means of increasing the return, using active trading strategies based on the shape of the yield curve and its expected moves.

Introduction

The new generation called Generation Z (Gen Z) who were born since mid-1990s onwards, is outnumbering the previous generations such as Generation Y also called Millennial, Generations X and Baby boomers (Horovitz, 2012). The way in which Gen Z perceives things and their pattern of thinking have changed dramatically. The Gen Z population has been brought up in an environment where the Internet and smart phones were freely accessible even though they are not cheap. This opened up the Gen Z population for a whole gamut of new services such as email, online music, Internet, television, online video streaming, etc that was unimaginable a couple of decades ago. Therefore old ways of interacting with people, especially for economic transactions, are evolving at a rapid pace. The idea of gold standards that prevailed about a century ago has also influenced the usage of currency at the time. But such practices would raise eyebrows of the latest generation because of the modern methods of using currency for economic transactions.

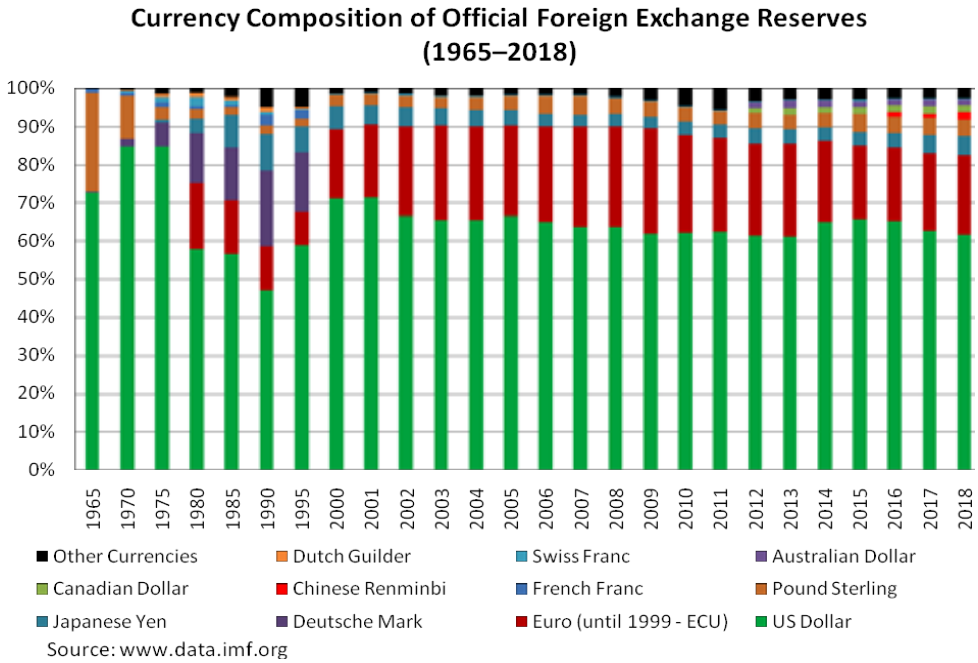
The gold standard was in place mainly from 1880 to 1914 where stock of money of each nation was accounted in precious metals such as gold or silver and paper currency was backed one to one by such gold or silver reserves. It was called the currency board system where the stock of domestic money in a country was dependent on the stock of money held as reserves, at the time in gold or silver. This imposed limitations on the flow of international trade resulted in limited economic activities. If a country has a trade deficit it will result the money stock to decrease and if a country has a trade

surplus it will cause the money stock to increase as a result. A decrease in money stock reduces the increase as a result availability of resources consumers in that country where the economic activities will have to be curtailed accordingly.

Later on, the gold standard was converted to a fixed exchange rate system where the value of currency in each nation was pre-determined in order to exchange with each other without relying on the value of gold or silver reserves. However, the gold standard was not totally abandoned until 1971 when the then President of the United States, Richard Nixon, announced that convertibility of United States Dollars (USD) to gold or other reserve assets was abolished and no country could exchange their dollars to gold. After the abolishment of convertibility of gold, most of the countries began to use their own currencies for international trading activities but the intermediate currency that was used was USD. This propelled the popularity of USD, which became prominent since then and up to-date USD is being used as the most preferred international reserve currency.

Therefore, stocks of international reserves are mostly being held in USD by many countries. According to the Currency Composition of Official Foreign Exchange Reserves (COFER) database published by the International Monetary Fund, the majority of the international reserves are held in USD as shown in Figure 1 below, which amounts to 62% as at end of 1st quarter 2019 (IMF, 2019). The reserve currency used before USD was British Sterling Pound, which was heralded for 105 years, i.e. from 1815 to 1920 and the predecessor of Sterling Pound was French Franc, which lasted for a period of 95 years, i.e. from 1720 to 1815[1].

Figure 1: International Official Foreign Exchange Reserves by Currency Type



Source: www.data.imf.org

Functions of Money

At this juncture it is important to identify the functions of money as the cornerstones of currency trends. There are mainly three functions of money. Firstly, money is used as a unit of account to measure the value of goods and services. Secondly, money is used as medium of exchange. Thirdly money can be used as a store of value where it could be used for making payments in the future. For example, if you want to buy a loaf of bread, which is worth Rs. 60 tomorrow morning, you can use your currency notes or coins that you have at hand today to pay the bakery tomorrow morning.

1. Source: _____, (2016, Jun 08). History of World Reserve Currencies. Retrieved July 24, 2019, from Philosophy of Metrics (FREEPOM #12):https://philosophyofmetrics.com/history-of-world-reserve-currencies.

Commodity Money and Fiat Money

The conventional definition of money specifies money as any commodity that functions as a medium of exchange and measure of value. Therefore several centuries ago, under the barter system, cow, horse, goat, pig, dried fish, grains, stones, cowrie, sea shells, leather, metals and etc were considered as money. It is also important to understand that such money had an intrinsic value because the commodities used as money did not have a specific value assigned to it for a long time. However, later on with the usage of money made out of precious metal such as gold or silver had a standard value assigned to it. Therefore, intrinsic value or melt value is different to the value imprinted on the face of the coin because the supply of coins would depend on the discovery of large deposits of such types of metals.

In the last several decades definition of money has evolved. The central banks consider currency notes and coins as the most liquid asset where as time and savings deposits are very close substitutes to currency notes and coins. At present, central banks are envisaging to broaden the definition further to capture the financial claims against the non-banking financial intermediaries also into the money supply.

However, commodity money lacks many features such as uniformity, homogeneity, standard size and weight, durability, storability, portability, stability in value and divisibility, which was essential to develop the trading activities in the world economy. Therefore, the demand for currency, which could accommodate all of the said features, caused the monetary authorities to introduce fiat currency. The Latin word "fiat" means "let it be". The fiat currency, also known as hard currency, does not have an intrinsic value like coins made out of precious metals. Today almost all the countries issue fiat currency to be used as money, which is mainly made out of paper, mostly with a special cotton pulp. The first paper currency on record was issued in China around 10th century under the Song dynasty[2].

2. Source: https://en.wikipedia.org/wiki/Fiat_money, accessed on 29.07.2019

The unavailability of intrinsic value in fiat currency also brings the idea of neutrality of money. The neutrality of money means that physical money or hard currency does not have any effect on real variables such as employment, real GDP or real consumption because the demand of any good or service will not depend on the method used to purchase such good or service.

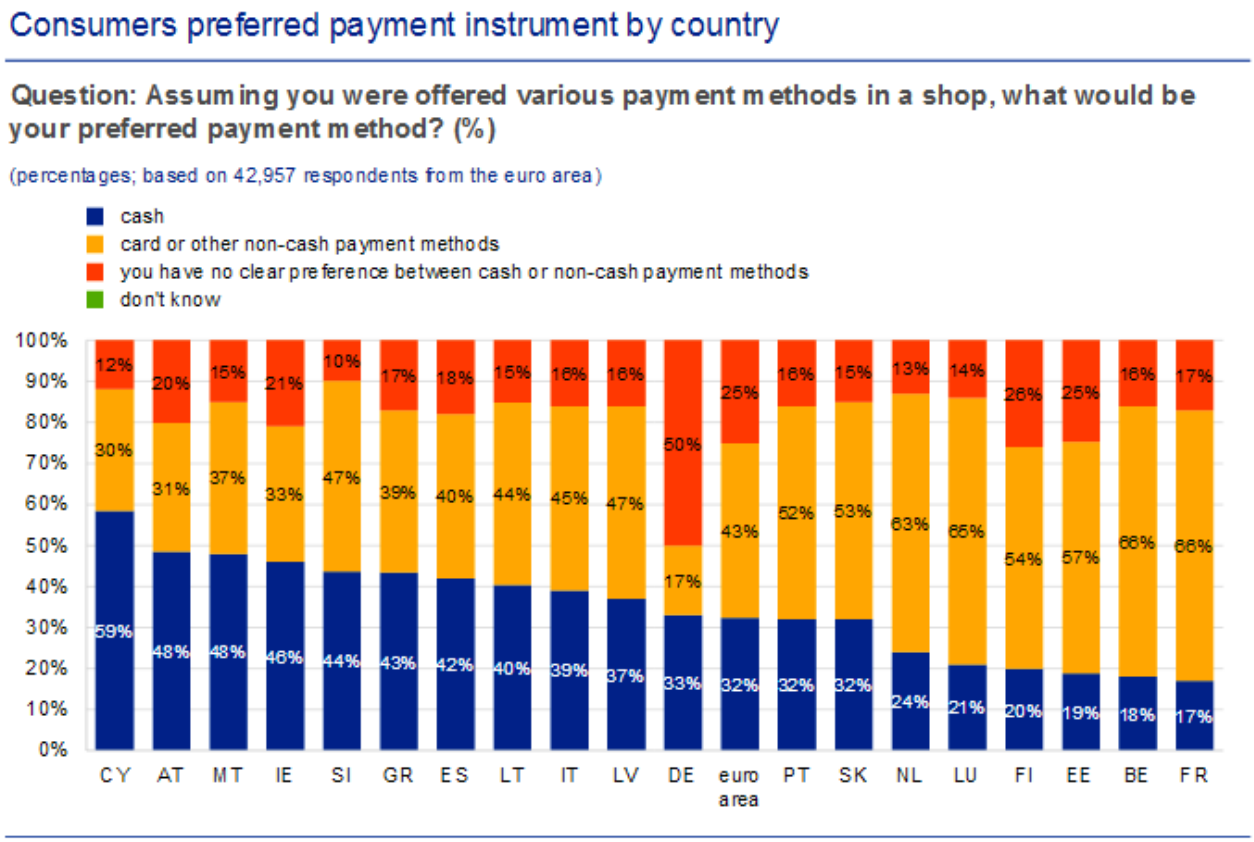
Therefore fiat currency was evolving overtime marking its prominence since 10th century and fulfilling its functions as a unit of account, medium of exchange and store of value. All the countries in the world use fiat money as their legal tender issued by the respective sovereignty or its authority. However, at present the use of fiat currency is being challenged with the emergence of digital currency or virtual currency.

Emergence of Electronic Movement of Currency

The fiat currency was initially challenged as a medium of exchange, with the introduction of electronic movement of funds. Since 1980s most of the transactions whether for financial assets or for commodities, are less and less expensive in terms of time and resources where electronic payment networks were making possible instantaneous payments via computer from one account to another (Tobin 1985).

However, hard currency was still making progress with the increasing economic activities and development of technological innovations. However, with the emergence of digital currency for real transactions since the beginning of 21st century, the share of fiat currency, i.e. in the form of currency notes and coins were challenged. The response received for one of the questions in the survey conducted by the European Central Bank in 2017, which indicates less than 45% of people in 15 out of 19 countries in the European Union (EU) prefer to make payments in hard currency as shown in Figure 2 below. In other words, more than 55% of people prefer to make payments in methods other than using hard currency. These kinds of changing habits of using hard currency propelled with the development of blockchain technology.

Figure 2 : One of the survey results conducted by the European Central Bank



Sources: ECB, Deutsche Bundesbank and De Nederlandsche Bank.
Notes: In the German survey of 2014 the question was: "Let's assume you have the choice between various payment options when shopping. How would you pay for your purchases?", and the categories were: "Cash only", "Predominantly cashless means of payment" and "Either cash or with a cashless means of payment, depending on the shopping situation". The latter category has been allocated to "You have no clear preference between cash or non-cash payment methods".
Source Download Link: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf

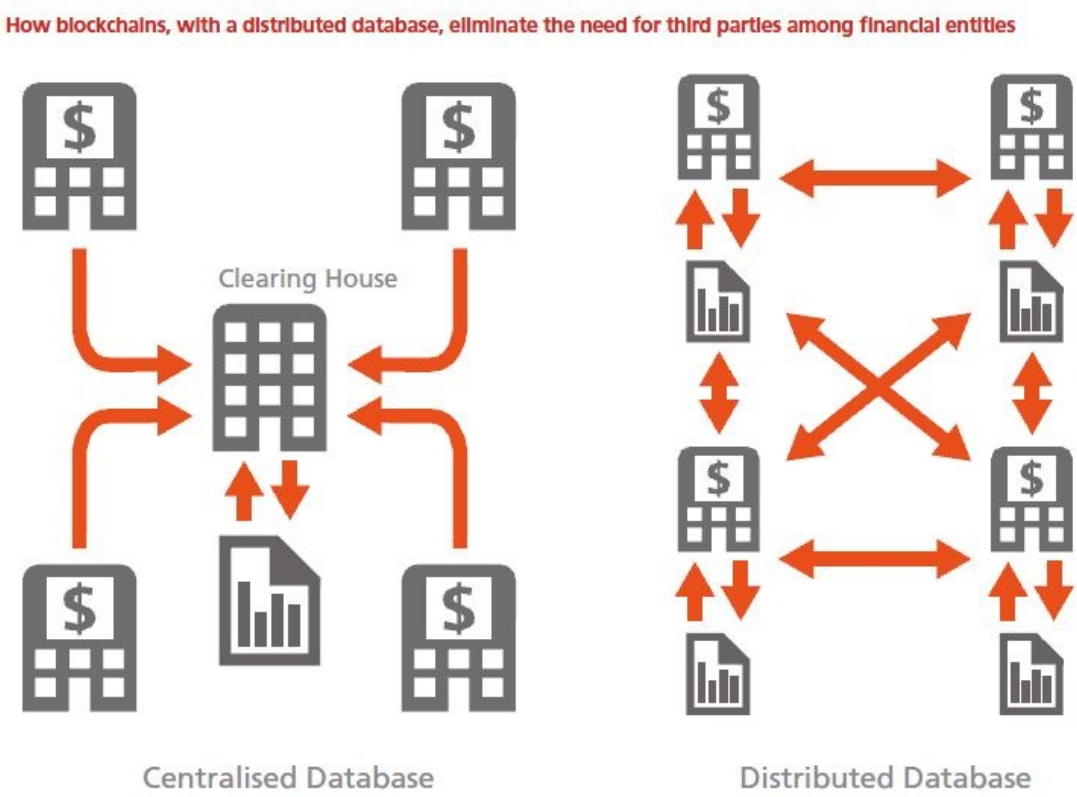
What is Blockchain Technology?

Blockchain technology in its broader sense means a network of databases always linked across multiple entities where no one is the owner or the controller of data within the network. This network employs a Distributed Ledger Technology (DLT). Accordingly, the data can be added to the databases in the network by anyone but historical data cannot be altered without the agreement from participants of the network. Therefore, no one will be held as trusted third parties that are traditionally being used when executing transactions using a network. The mechanism used by the blockchain method as against the traditional method of using a clearing house is illustrated in Figure 3 below. The blockchain employs a mechanism called cryptography to encrypt the transactions, which is formulated using data structures with specific mathematical algorithms.

What is Virtual Currency?

"Virtual currencies" means a digital representation of value that is not issued or guaranteed by a central bank or a public authority, is not necessarily attached to a legally established currency and does not possess a legal status of currency or money, but is accepted by natural or legal persons as a means of exchange and which can be transferred, stored and traded electronically (Tajani and Pavlova 30 May 2018). This was issued by the European Parliament and the Council on 30.05.2018 as the Directive (EU) 2018/843 on the prevention of the use of the financial system for the purpose of money laundering or terrorist financing as a new amendment to the Directive (EU) 2015/849. This new directive is also referred to as fifth Anti-Money Laundering Directive (AMLD5) (Houben and Snyers July 2018). In the USA, for federal tax purposes, virtual currency is treated

Figure 3: Current Clearing System versus DLT System



Source: Bech, M, & Garratt, R. (September 2017). Central bank cryptocurrencies. *BIS Quarterly Review*, 55-70.

as property. The general tax principles applicable to property transactions apply to transactions using virtual currency (Aqui, 2014 Mar). Further, virtual currency is the larger subset of different types of digital currencies created using cryptography.

What is Cryptocurrency?

A cryptocurrency is a digital or virtual currency that uses cryptography for security. A cryptocurrency called "Bitcoin - (BTC)" was introduced by an individual or a group known under the pseudonym Satoshi Nakamoto in 2009, which gained a growth momentum in the past decade. The development of Bitcoin was jumpstarted by Satoshi Nakamoto, who published a paper in 2008 called "Bitcoin: A Peer-to-Peer Electronic Cash System". For more information on the method of conducting transactions on Bitcoin, you may refer to the above mentioned paper by Satoshi Nakamato.

Let's take an example to explain the method of conducting transactions using the Bitcoin blockchain. Suppose that Anna wants to send 100 Bitcoins to Jeff, then first of all she will have to digitally sign this transaction using her private key (which is only known to her). She will have to address the transaction to Jeff's public key, which is Jeff's address on the Bitcoin network. Next, the transaction, which will be collated into a "transaction block", will have to be verified by the nodes within the Bitcoin network. Here, Anna's public key will be used to verify her signature. If Anna's signature is valid, the network will process the transaction, add the block to the chain and transfer 100 Bitcoins from Anna to Jeff (Houben and Snyers July 2018). It simply records each step in the transaction electronically. However, the method of transacting may vary depending on the functionality built into the network.

Since issuance of Bitcoin, hundreds of other kinds of cryptocurrencies were introduced, which are being traded in the digital market places in the world. Some of the other names of cryptocurrencies are Ethereum

(ETH), Ripple (XRP), Litecoin (LTC), Dash (DASH) and Monero (XMR). Even though they are termed as cryptocurrency they are not considered as a legal tender by any sovereign to-date.

These cryptocurrencies are traded heavily in cryptocurrency exchanges available on the Internet by using most of the fiat currencies issued by sovereign authorities or payments made via Internet. The market capitalization of those cryptocurrencies amounts to more than USD 100 billion. Some of the cryptocurrency exchanges are Binance, Coinbase, Bittrex, Kraken and Kucoin to name a few. Further, there are many service providers emerging on the Internet who are willing to facilitate the transactions with regard to cryptocurrencies such as providing banking (digital wallet) and credit card services.

Myth of Cryptocurrency

All these types of cryptocurrencies are trading as a commodity as explained above. Therefore acceptance of cryptocurrencies as a medium of exchange by any sovereign or issuing authority is questionable at present. Therefore cryptocurrency cannot be treated as a legal tender and in a failure of the systems involving such cryptocurrencies could lead to a massive loss of value stored in them.

What is Stablecoin?

Stablecoin is another type of cryptocurrency that is backed by an actual fiat currency type such as USD, Euro, Yen, etc to minimize the fluctuations of the value of cryptocurrency. It is also called crypto stable coin. Stablecoin guarantees one to one redemption of stablecoin to an actual fiat currency type. The stablecoin emerged as an alternative to the initial cryptocurrency types which were experiencing very high volatility in their value. There are several varieties of Stablecoin types available in the market such as Tether (USDT), USD Coin (USDC), True USD (TUSD), Gemini Dollar (GUSD), bitCNY (BITCNY), Canadian Stable Coin (CADT), etc. Some of them are backed by United States Dollar, Canadian Dollar, Chinese Yuan and etc. (Late 2019). Many of them are either fiat collateralized Stablecoin or cryptocurrency collateralized Stablecoin but some are uncollateralized as well.

These Stablecoin types act as stabilizers in the cryptocurrency market where the high price fluctuations could be curtailed by converting the cryptocurrency into Stablecoin where the medium of exchange could be established easily due to the backing of fiat currency.

Crypto Assets

Crypto-assets were originally designed to facilitate the transfer of value without the need for a trusted third-party intermediary (Nakamoto 2008). Therefore, crypto-asset is a type of private asset that depends primarily on cryptography and distributed ledger or similar technology as part of their perceived or inherent value (Board 2018). Crypto-assets are neither backed by any government or other authority, nor are they legal tender in any jurisdiction. However, some private enterprises and some public sector entities have chosen to accept some crypto-assets as payment, especially in Switzerland the cantons of Zug and Chiasso have accepted crypto-assets for the payment of some fees (Allen 2017).

What is Central Bank Digital Currency (CBDC)?

Lately, central banks have considered exploring the possibility of implementing the DLT into its transactions. The central banks already deal with digital money for purpose of reserves or settlement accounts held by commercial banks and other financial institutions with central banks. This money is already a liability of the central bank, which are used to implement monetary policy actions. However, in the backdrop of vast emergence of virtual currencies the real meaning for central bank digital currency is yet to be defined.

Therefore, it is essential to have a clear understanding of CBDC by focusing on taxonomy of money that is based on four key properties, i.e. issuer (central bank or other), form (electronic or physical), accessibility (universal or limited) and transfer mechanism (centralized or

decentralized) (Bech & Garratt, September 2017). Accordingly, CBDC is defined as an electronic form of central bank money that can be exchanged in a decentralized manner known as peer-to-peer, meaning that transactions occur directly between the payer and payee without the need for a central intermediary. The peer-to-peer transaction in its purest form is a cash exchange and on a computer network, it is when the transaction can be processed without the need of a central server.

According to Bank for International Settlements, CBDC could be categorized into "General Purpose CBDC" and "Wholesale CDBC" where general purpose refers to CBDC's usage by the general public for daily transactions instead of currency notes and coins and wholesale means CBDC's usage for large value settlements, which are based on central bank deposits and the adoption of new technologies such as DLT.

This could be illustrated easily by the following venn diagram. It is called money flower where various categories of money is segregated into different parts according to the four key properties for understanding CBDC, i.e. issuer, form, accessibility and transfer mechanism.

Arguments against the Cryptocurrency

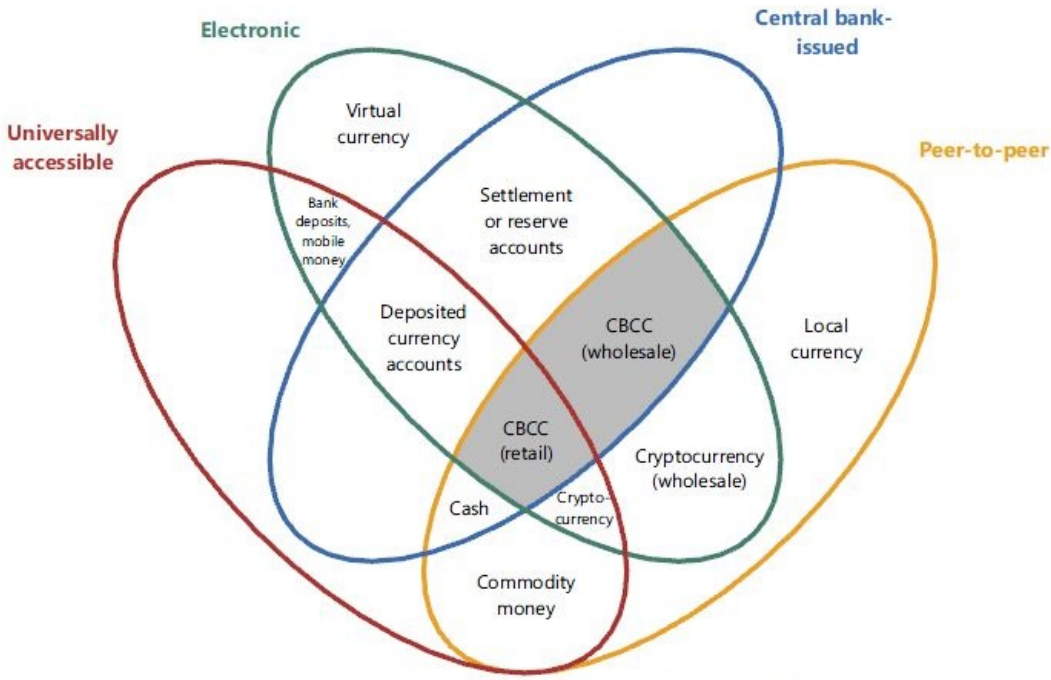
The semi-anonymity nature of cryptocurrency makes the currency traders more cautious as it would divulge the underlying motivation of the transaction that will not occur in the case of hard currency. Similarly, the network design could not handle high load transaction rates restricting the free usage of cryptocurrency.

In addition, the security of cryptocurrency is still being questionable. The case of theft reported since the inception of Bitcoin was disturbing the new entrants to the cryptocurrency market. Lack of government tracking and legislative powers give the opportunity for the wrong-doers to perform numerous mishandling of information and wealth created using virtual currency.

Moreover, cryptocurrency is largely being treated as a commodity that is traded in the online exchanges. Therefore, cryptocurrency is used as a commodity to

Figure 4: Money Flower - Taxonomy of Money

Figure 4: Money Flower - Taxonomy of Money



Source: Bech, M, & Garratt, R. (September 2017). Central bank cryptocurrencies. *BIS Quarterly Review*, 55-70.

Country	Measures Taken
China	December 5th, 2013, China's Central Bank prohibited financial institutions from handling Bitcoin transactions. Individuals and private parties can legally trade Bitcoin.
Russia	In February 2015, Russia's Prosecutor General's Office claimed that Bitcoin "cannot be used by individuals or legal entities."
Japan	The tax will cover gains from trading bitcoins, purchases made with bitcoins and revenues from transactions. Banks and securities firms will be prohibited from Bitcoin trades.
Germany	Profits from mining or trading subject to capital gains tax unless hoarded for at least one year.
India	The Reserve Bank of India's Secretary General, Ajit Prasad, said "The creation, trading or usage of virtual currencies including Bitcoins, as a medium for payment is not authorized by any central bank or monetary authority." However, cryptocurrencies are currently not regulated.
Taiwan	Approval for Bitcoin ATMs refused.

store value rather than a currency which can act as a medium of exchange or unit of account. The value stored in cryptocurrency is significantly fluctuating due to the sensitive nature of demand for the cryptocurrency. The price volatility discourages consumers from holding cryptocurrency for a significant length of time due to the loss of trust in its value, which leads to doubt about the legitimacy of holding cryptocurrency in the case of a system failure. Cryptocurrency does not seem to be a mature form of currency in its current market and state.

Some of the governments have already taken steps to define legal parameters for cryptocurrency and regulate its activity and usage. The following chart gives a brief description of the measures adopted by several countries in the world so far (Farell, 2015).

Is cash still the "King" of payments?

It is indeed necessary to inquire about the drivers of hard currency usage in many countries in the world. Some of the drivers could be the change in demographics such as increase in world population, with increasing middle

Table 1: Cash as a percentage of Nominal GDP

Country	2000	2005	2010	2015
Japan	12.8	16.0	17.4	19.4
United States	5.7	6.0	6.5	7.8
Euro Zone	4.8	6.2	8.3	9.9
Sweden	4.1	3.8	3.0	1.7
Norway	3.1	2.6	2.1	1.7
Denmark	2.8	3.0	2.9	2.9
United Kingdom	3.2	3.3	3.8	4.0
Canada	3.2	3.2	3.4	3.7
Australia	3.9	3.6	3.5	4.1
Singapore	6.8	6.9	6.9	8.1
Republic of Korea	3.4	2.8	3.4	5.5
People's Republic of China	14.6	12.7	10.9	9.0
India	9.8	11.1	11.7	11.4

Source: CEIC, Federal Reserve Bank

income category, political & economic uncertainty and threat of natural disasters. These drivers will demand the requirement for hard currency mainly as a store of value, which leads to escalate the currency in circulation at much higher rates than expected. It is evident during the last decade when the economic growth rates plummeted in the world and the unconventional monetary policy tools such as near zero or negative interest rates were implemented in many advanced economies. This could be illustrated by the following table (Shirai, 2019) where it shows hard currency as a percentage of Gross Domestic Product since 2000 has increased in several developed countries such as Japan United States, United Kingdom and Singapore, despite the enormous developments in virtual currency taking place in such countries.

Conclusion

During the last couple of decades there have been many developments in the payment systems in the world, which were challenging the usage of traditional fiat currency for day-to-day economic transactions. Similarly, it is apparent that with the introduction of digital banking and new methods of transferring monetary values within individuals or entities through computer networks have caused to lower the popularity of hard currency. The emergence of virtual currency reaching the public is exceeding the boundaries of imagination and is challenging the survival of hard currency. The level of adaptability by each nation to the virtual currency will pave new pathways and it will create more opportunities for technocrats.

The best example is the launching of new cryptocurrency called "Libra" by Facebook in the near future where the user population of Facebook has now reached to 2.4 billion (The Economist, 2019). This could significantly change the perspective of the payments and settlements infrastructure available in many countries in the world given that the total world population as of 19.09.2018 is estimated to be 7.5 billion people by the United States Census Bureau (USCensusBureau).

Therefore, it is timely for central banks to consider recognizing the virtual currencies in their payment and settlement infrastructure, as they are evolving faster than expected from the concept stage. In addition, it is more essential to initiate action to introduce new legislations and a regulatory framework, if it is deemed necessary, in order to keep up the pace with the developed and developing nations in creating more economical and efficient payment systems in the future.

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Debt Sustainability Analysis: Sri Lanka

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Debt Sustinability

Debt "sustainability" is often defined as the ability of a country to meet its debt obligations without requiring debt relief or accumulating arrears.[1] Varma (2006) says that "debt sustainability may be defined as a country's ability to meet its debt service obligations without resort to exceptional financing or a major correction in its balance of income and expenditure". It is therefore an important precondition for economic stability, which in turn is crucial for economic growth and development.

Why Debt Sustinability is important for Sri Lanka?

A large government debt has a serious destabilisation effect on the Sri Lankan economy. The amount of government debt, the sources of funding the debt and the massive debt servicing costs have serious long-term economic and social consequences. The cumulative large fiscal deficits over the years have increased the central government debt of Sri Lanka and its high servicing costs generate inflationary pressures that increase the costs of production and erode the country's competitiveness in international markets. Further, high government debt and low debt affordability are major concerns of rating agencies, which affects Sri Lanka's sovereign ratings undesirably. The massive government debt and crippling debt servicing costs also distort public expenditure priorities and hamper economic development. Further, foreign debt servicing is rising at a high rate which would lead for external sector vulnerabilities. Therefore, containing the government debt, reducing the fiscal deficits and decreasing debt servicing costs are vital for economic stabilisation and long term economic development.

Major Debt Indicators for Sri Lanka

Sri Lanka's government debt has observed substantial changes over the years and it is comparatively higher than the peer countries. Central government net debt, which was at 16.9 per cent of GDP in 1950 had increased to 82.9 per cent in 2018. In comparison to the average outstanding general government gross debt of Asian countries (52.0 per cent) , and emerging market and middle income economies (50.8 per cent) in 2018 Sri Lanka showed a higher debt burden of 84.1 per cent (IMF, 2019). In nominal terms, the outstanding central government net debt has increased from Rs. 654 million

1. http://www.development-finance.org/en/topics-of-work/debt-strategy-information/debt-sustainability.html

in 1950 to a staggering level of Rs. 11,977.5 billion in 2018. In other words, central government debt has doubled in nominal terms every 5-6 years over the past seven decades.

In addition, debt servicing cost of the government, one of the major debt indicators, has weakened significantly during the recent past. In 2018, total debt service payments increased to 14.5 per cent of GDP in 2018 from 11.9 per cent in 2017. Moreover, the ratio of debt service payments to government revenue increased to 108.8 per cent in 2018, indicating that the total debt service payments of the government was larger than the government revenue. Further, foreign debt service as a percentage of exports[2] increased to 16.0 per cent in 2018 from 13.4 per cent in 2017. Total debt service payments as a percentage of exports of goods, services and primary income recorded at 21.2 per cent for Sri Lanka in 2017, while the same ratio for South Asian countries and middle income countries were only 10.7 and 14.3, respectively.[3]

Debt Reduction Paths: Sri Lanka

The International Monetary Fund (IMF) has developed a formal framework for conducting public and external debt sustainability analyses (DSAs) as a tool to better detect, prevent, and resolve potential crises and this framework became operational in 2002 (IMF, 2017). In addition to this comprehensive tool, the IMF also uses a simple DSA tool in their taining programmes and technical assistance.

In this study, Sri Lanka's medium term central government debt levels were calculated using a simple Debt Sustainability Analysis (DSA) model of the IMF and a number of key variables, namely, nominal interest rates on domestic currency debt, nominal interest rates on foreign currency, domestic inflation, real GDP growth and exchange rate were used to compute the future debt paths.

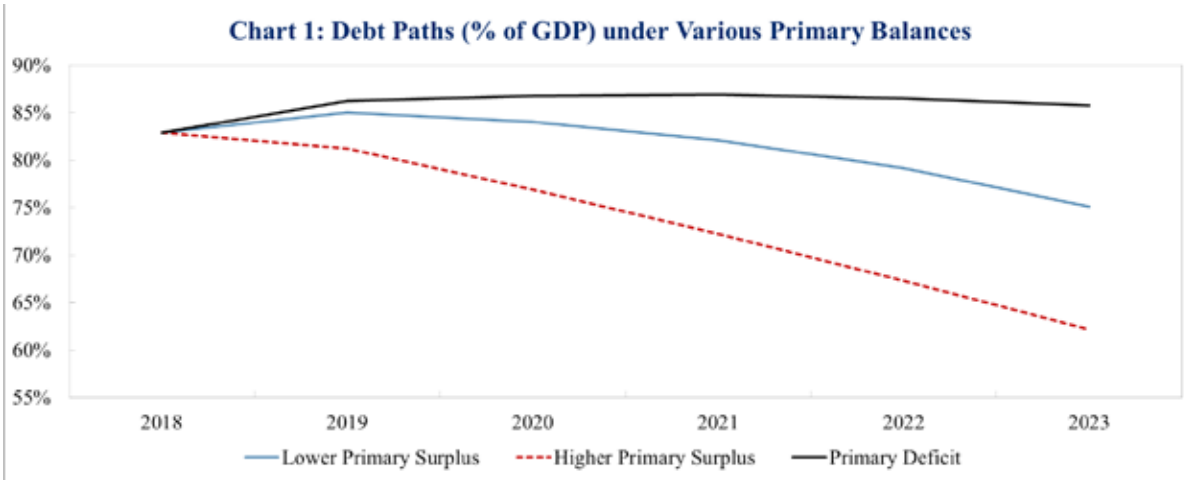
As per the results of the above exercise (Table 1), achieving a **Lower Primary Surplus** of around 1% - 2% during the medium term would help reduce the central government debt to GDP ratio to around 75 per cent of GDP by 2023. The expected reduction in the debt to GDP ratio would be supported by the favourable economic growth rate, predicted to be higher than the real interest rate. However, slower than expected growth rates together with the rising pressure on net borrowing needs, could seriously challenge debt sustainability of the country. A significant deviation of the fiscal consolidation process from its envisaged path, as indicated in the **Primary Deficit** trajectory in the Table 1 above, would increase the debt ratio to around

Table 1: Debt Paths under Various Primary Balances

% of GDP

	2018	2019	2020	2021	2022	2023
Lower Primary Surplus						
Primary Balance	0.6%	0.2%	0.6%	1.1%	1.7%	2.5%
Central Government Debt	82.9%	84.3%	83.3%	81.3%	78.4%	74.4%
Higher Primary Surplus						
Primary Balance	0.6%	4.0%	4.0%	4.0%	4.0%	4.0%
Central Government Debt	82.9%	80.5%	76.2%	71.5%	66.6%	61.5%
Primary Deficit						
Primary Balance	0.6%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Central Government Debt	82.9%	85.5%	86.1%	86.2%	85.8%	85.0%

2. Export of goods and services
3. https://data.worldbank.org/indicator/DT.TDS.DECT.EX.ZS



85 per cent by 2023. In contrast, a larger improvement in the primary balance (**Higher Primary Surplus**), as assumed in the Table 1 above, would lead to a debt ratio of around 60 per cent, by 2023. These three different debt paths are shown in the Chart 1 below.

Further, different shocks, including growth shcok, exchange rate shock and interest rate shock could exert significant downside risks to the fiscal consolidation path, making the debt reduction more challenging. Accordingly, the study was extended to see the impact of a growth shock on the debt path (Chart 2).

If the real growth rate declines to 1 per cent during 2019-2021 period and returns to the baseline growth assumptions in 2022, the central government debt will only be reduced to around 80 per cent by 2023 in comparison to the debt level of 75 per cent in the baseline scenario (**Lower Primary Surplus).** Hence, the government needs to be cautious on the shocks on debt stock as it would threaten the debt consolidation efforts of the country.

Recent Policy Measures on Debt Sustainability

During the recent past, the government has taken several policy measures to make government debt more sustainable. The main measures in this regard are; maintaining an agreed level of primay balance under the Extended Fund Facility (EFF) arrangement of the International Monetary Fund (IMF), enactment of Active Liability Management Act (ALMA), implementation of medium-term debt management strategy (MTDS) and strengthening fiscal rules. The government has commited to achive the targeted central government primary balances, which would lead to reduce the government debt burden. The ALMA was approved by Parliament in March 2018 and according to the ALMA, Parliament may, during a particular financial year from time to time, by resolution, approve to raise sums of money, the total of which shall not exceed ten percentum of the total outstanding debt as at the end of the preceding financial year, as a loan for the purposes of refinancing and pre-financing of public debts of the government.[4] Hence, the ALMA facilitates smoothening of future liabilities and building spaces within debt profile in the medium term. As per the MTDS Report published in April 2019,[5] the MTDS, which is a rolling plan, articulates the strategies and debt management framework that the Ministry of Finance and the Central Bank plan to execute over the next five-year period with the aim of implementing a prudent borrowing programme and achieving government's debt management objectives. The MTDS is principally focused on building an appropriate composition of the debt instruments focusing on the projected path of macroeconomic framework and market environment.

4. Active Liability Management Act, No. 8 of 2018
5. Medium Term Debt Management Strategy (MTDS) 2019/2023, Ministry of Finance and Central Bank of Sri Lanka, April 2019

Sri Lanka has a fiscal management responsibility framework, introduced by the Fiscal Management (Responsibility) Act, No. 3 of 2003 (FMR Act) and reducing the government debt stock is one of the main objectives of this FMR Act. Currently, measures are being taken to strengthen the fiscal rules. Accordingly, these measures would contribute to reduce the government debt to a sustainable level during the medium term.

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RIGHT TO INFORMATION

Act No 12 of 2016

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Abstract

The objective of setting out the legal regime for Right to Information is to provide the general public greater and equal access to information across all sectors of the community, unless it is not contrary to the public interest, while providing appropriate protection for the privacy of the individuals. Over 100 countries around the world have implemented some form of Right to Information laws and amongst them Freedom of the Press Act *of 1766 of Sweden is the oldest in the world. The Right to Information Act (RTIA) which came into effect from 03rd March 2017, has let Sri Lanka join with the other countries that had enacted Right to Information laws, within the region.*

However, most Right to Information laws exclude the private sector from their jurisdiction and therefore, information held by the private sector cannot be accessed as a legal right. This can be identified as a serious limitation in this modern era, as the private sector performs various functions which were previously conducted by the public sector. Further, the citizen who requests the information is not required to give reason for asking such information but a legally acceptable reason shall be given by the Public Authority who does not disclose the information as burden of proof falls on the Public Authority under most of the Right to Information laws. Furthermore, the conflict between the Privacy Rights against Right to Information is also arbitrary.

Given the circumstances, in this article, it is expected to discuss the provisions of the Right to Information Act No.12 of 2016, giving prominence to the procedure of providing information laid down in the Act.

1. Introduction

Right to information became a legally accepted fundamental right by the Article 14(a) of the Constitution which was newly introduced by the 19th Amendment to the Constitution[1]. Under the said Article 14(a) the right of every citizen to access information has been established, subject to certain conditions. In line with this amendment, Sri Lanka has taken a liberal step forward, when legal provisions were laid down by the Right to Information Act No.12 of 2016, passed by the Parliament of Sri Lanka on 04th August 2016, for the access to information required for the exercise or defending of the right of a citizen, and for the use of information in a transparent manner. The primary purpose of the Right to Information Act are to provide for the right of access to information, to specify grounds on which access to information may

be denied, to establish the right to information commission, to appoint information officers, to set out the procedure for obtaining information and to provide for matters connected therewith or incidental thereto[2].

The Act prescribes that the provisions of the Act shall prevail over any other written law, and that in the event of any inconsistency or conflict between the provisions of this Act and any other written law, the provisions of this Act shall prevail[3].

2. Access to information

Subject to the limitations set out in the Act, every citizen shall have a right of access to information which is in the possession, custody or control of a public authority[4]. The term "citizen" includes a body either incorporated or unincorporated, if not less than three-fourths of the members of such body are citizens. The term "Information" has also been given a wider interpretation. Generally a "public authority" may include all Ministries, departments, public corporation, companies in which the State or a public corporation hold 25 percent or more of the shares, local authorities, private entities linked with the government, institutions connected to Provincial Councils, non-governmental organizations that are connected to the government, private universities, institutions offering vocational training and institutions offering technical education having some form of connection to the state or in some way funded by the state, courts and tribunals[5].

For the purpose of giving effect to the provisions of this Act, every public authority shall appoint, within three months of the date of coming into operation of the Act, one or more officers as information officers and a designated officer to hear appeals[6]. The primary duty of these officers is to ensure providing information to citizens, as such citizens may request, subject to the provisions.

2.1. Procedure to obtain information

Any citizen who expects to receive information under the Right to Information Act should make a request in writing using the application form published as 'Form 01' under the regulations pertaining to the Act which have been published on the Government Gazette dated 03.02.2017. However, where such application could not be made in writing, such citizen shall have the right to make the request verbally as well. The Act has also made provisions to make information requests by e-mail as well, from any public authority[7].

Any such citizen requesting for information should ensure that the information officer is provided with sufficient details to identify the required information.

A decision has to be made either to provide the information requested for subject to the payment of any fee, or to reject the request on any one or more of the grounds referred to in section 5 of the Act, and such decision shall forthwith be communicated to the citizen who made the request within 14 working days. Where a decision is made to provide the information, it should be provided within 14 days of arriving at such decision. Where the request for information concerns the life and personal liberty of any citizen, the response to such request should be made within 48 hours of the receipt of the request[8].

The period may be extended for a further period up to 21 days where the request is for a large number of records and if the relevant information does not exist at the office of the information officer but at some other distant

location, and therefore it is difficult for the Information officer to collect such information within 14 days, and such extension should be communicated to the relevant citizen.

In providing information, such information should be provided using the Form 04 published in the said Gazette, and if the Information Officer is of the view that using the said Form is prejudicial to the safety or security of such information, such information may be provided in any other appropriate manner.

Where information requested by any citizen relates to, or has been supplied by a third party, subject to the time period prescribed in Section 29(1), it should be inquired from such third party if such party is willing or unwilling to disclose such information[9]. The information Officer should give due consideration to the opinion of such third party, in making a decision with regard to providing such information.

2.2. Denial of access to information

The Information officers are permitted to reject any application for information by a citizen, in the following circumstances[10].

(i) Where the requested information is personal information, the disclosure of which would cause unwarranted invasion of the privacy of the individual, and where such disclosure does not promote public interest,

(ii) Where such disclosure would undermine the national security or territorial integrity or defense of the state,

(iii) Where such disclosure may be prejudicial to international relations,

(iv) Where the disclosure of the relevant information would cause serious prejudice to the economy by disclosing government economic or financial policies relating to exchange rates or the control of overseas exchange transactions, regulation of banking or credit, taxation, maintenance of stability of prices of goods and services, and entering into overseas trade agreements

(v) If the information relates to trade secrets or intellectual property, the disclosure of the which would harm the competitive position of a third party,

(vi) If the information could lead to the disclosure of any medical records relating to any person, when he/she has not consented to such disclosure,

(vii) Where the information is required to be kept confidential due to the existence of a fiduciary relationship

(viii) Where the disclosure of such information would cause prejudice to the detection of any crime or the apprehension of offenders; interrupt enforcement of law, or cause contempt of court, or breach parliamentary privileges, or if it is pertaining to revelation of an information of an examination which needs to be kept confidential, or pertaining to an information of an election which needs to be kept confidential, or pertaining to a cabinet memorandum in relation to which a decision has not been taken.

The fact that should be emphasized here is that authorities should ensure not to refuse disclosure of information, on any of above reasons, where the public interest in disclosing the information outweighs the harm that would result from its disclosure.

Where a request for information is refused on any of the grounds referred to above,

access could nevertheless be given to the citizen who made the request, to any part of information contained in any such information record that is not falling under denial reasons, and which can be severed from the information record[11].

Where a request for information is refused by an information officer, such officer should notify to the relevant citizen who made the request, using the Form 05 published in the Gazette, the grounds on which such request is refused and the person to whom an appeal should be made.

2.3. Appeals

2.3.1. Appeals to the Designated Officer

If the citizen who made request for information is not satisfied with the response of the information officer, an appeal may be made to the Designated Officer within 14 days of the response. The Designated Officer should issue a notice of the acceptance of the appeal, to the citizen making the appeal within 3 working days of receipt of the appeal, and the decision of the appeal should be made within a period of 3 weeks from the date of receipt of the appeal.

2.3.2. Appeals to the Right to Information Commission

The Right to Information Commission is the main supervisory and enforcement institution established in terms of Section 11 of the Right to Information Act No.12 of 2016[12]. It is an independent statutory body, that is vested with powers to conduct inquiries into denials of information, recommend disciplinary action against officers engaged wrongful conduct, and to institute criminal prosecutions under the Act.

Any citizen who is not satisfied with a response received on an appeal made to a Designated Officer, may prefer an appeal to the Commission within two months of receipt of such response. The procedure of making inquiries on appeals made to the Commission are set out under Regulations 13-31 of the Right to Information Act, as approved by the Minister in charge of the subject under Section 42(2) of the Act.

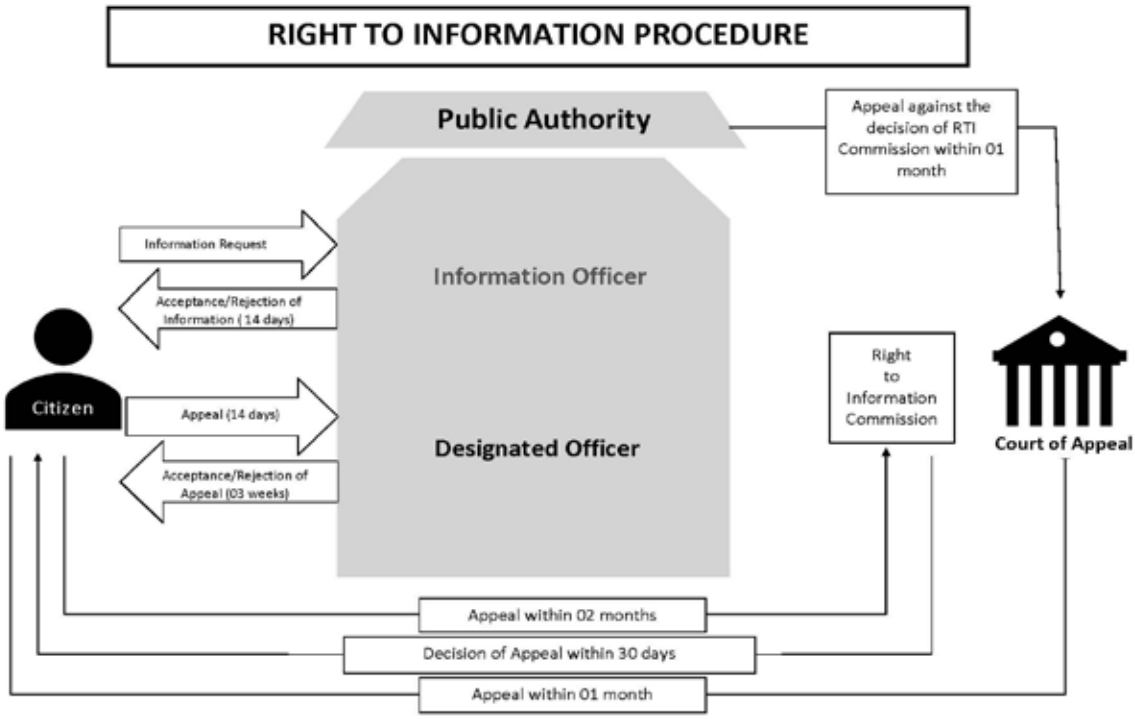
2.3.3. Appeals to the Court of Appeal

A citizen or public authority aggrieved by the decision made by the Commission may appeal against such decision to the Court of Appeal within one month from the date on which such decision was communicated to such citizen or public authority[13].

The procedure of receiving information is simply illustrated by the following chart.

3. Criticisms

When this Act is studied in depth as a whole, it is evident that the Act is more favorable to the citizen who seek to receive information. Some experts state that the rights of persons could be at risk due to the right to receive information. This means that disclosure of some information in the possession of a public authority may lead to breach of rights



of some persons. But the Act provides the opportunity not to disclose information if there is a likelihood of unwarranted invasion of the privacy of an individual, in disclosing any information[14]. Therefore, the argument that rights of individuals may be threatened by the Right to Information Act could be abandoned to a certain extent.

It appears that there is still a lack of awareness among the general public about this Act and about the scope of the Right to Information Commission which was established under the said Act. If proper steps are not followed to make the general public aware of the importance of this Act and of the ability of receiving information as a right, it would be difficult to achieve the expected goals of this Act. On the other hand, it appears that the public authorities have an indifferent attitude towards this Act. That is because, the Act entrusts them with an additional task of collection of information and to provide the same, and as it causes certain difficulties for them to attend to such duties with limited resources and while attending day-to-day duties. If they are made aware of the importance of the Act and the benefits that they could receive as citizens, staff members of the public authorities may perhaps attend to activities pertaining to this Act with a more positive view.

Some laws and regulations have prevented disclosure of information even for the interest of the public. For example, the Establishment Code has prohibited the public servants to disclose information pertaining to state policy and administrative decisions[15]. Sri Lanka Press Council Law has prohibited the disclosure sources of information in reporting news[16]. According to provisions of the Banking Act No.30 of 1988, banks have a legal duty to protect and not to disclose information of their clients[17]. Further, when it comes to state banks, there is a conflict between this limitation and the provisions of the Right to Information Act. In these circumstances, there are occasions where government servants face difficulties in

deciding as to what law they should comply with. But according to Section 4 of the Right to Information Act, the provisions of the Right to Information Act shall prevail over any other written law. Therefore, it is necessary to make arrangements to properly make aware the staff members of public authorities.

Some formal actions are required to be initiated without any delay, in order to raise public awareness of the importance of the Right to Information Act, and as to how to get it enforced as a fundamental right. This could be implemented at the institutional level for public authorities, and the general public could be addressed by workshops and awareness programmes conducted through Divisional Secretariat offices.

Awareness programmes have to be conducted for staff members of public authorities to encourage them to implement provisions of the said Act with a more positive attitude, instead of the existing indifferent attitudes. Information Officers and Designated Officers should especially be made aware of the legal process of disclosing information/ denial of information as set out in the Act, and of the rules and regulations introduced under the said Act as well.

Steps should be taken to include lessons on Fundamental Rights including the Right to Information in school curriculum, and thereby the society may become aware of this right and its importance.

There are loopholes in procedures of collecting and maintaining information in public institutions. This has been a result of lack of infrastructure. It appears that it has been difficult to provide information within the time-frame imposed by the Act, especially because information is not computerized. In this context, government intervention is required to provide necessary resources, trained workers, new technology and infrastructure to public authorities in order to collect information in various institutions and to store them in such a way to enable the easy retrieval of such information as and when necessary. As a long-term measure, it is also required to introduce to the country a common public database with state intervention, similar to those in countries like Singapore and Malaysia, whereby the general public shall be able to access the data base and to retrieve required information without any difficulty. The public authorities could upload to the said common state database all such information that could generally be disclosed and then the public authorities may not have to face difficulties that would arise in the implementation of the provisions of the Act.

Under the provisions of the Right to Information Act, no civil or criminal liability shall be imposed on any Information Officer or any public authority, for any disclosure of information which is done in good faith by such Information Officers[18].

However, the Commission has the power to take legal actions against a person who commits an offence under the Act, before a Magistrates Court[19]. If found guilty in such a prosecution, the offender may be subject to a fine not exceeding Rs. 50,000/= or an imprisonment up to two years or to both of those punishments. In addition, there is a possibility for the appropriate disciplinary authority to take disciplinary actions against the offender. Accordingly, the Act includes provisions that contains the capacity to take steps against those who avoid the implementation of the provisions of the Act. The possibility of reaching expected results

of this Act could be increased by properly enforcing the said provisions when necessary.

4 Conclusion

The right to search for and receive information beyond borders and impartially as guaranteed by the Universal Declaration of Human Rights (1948) and Article 19 of the International Covenant on Civil and Political Rights (1966) of the United Nations has been legally enforced locally by Parliamentary legislations of 19 countries in Asia by now. India, Pakistan, Bangladesh and Nepal are among these countries, and the Indian Right to Information Act which was introduced in 2005 is being very actively utilized. Following this trend, Sri Lanka has also established a wide legal framework for receiving information by the Right to Information Act No. 12 of 2016. The Right to Information Commission was also established under the said Act in order to supervise and to enforce disclosure of information.

Every citizen has a huge responsibility in achieving the expected results from this Act through the proper implementation of the said legal framework, and it is the responsibility of the state to engage in carrying out necessary awareness programmes required for making the attitude change in society to realize this responsibility, and to provide required infrastructure.

In brief, there would be a big impact on inefficiency, bureaucracy and arbitrary political activities in public sector, by legal enforcement of the right to information and that would eventually provide a great support for the establishment of democracy, media freedom and economic development and to achieve sustainable development.

(Endnotes)

1 19th Amendment to the Constitution, Article 2

2 Right to Information Act No.12 of 2016, Preamble

3 Right to Information Act No.12 of 2016, s 4

4 Right to Information Act No.12 of 2016, s 3A

5 Right to Information Act No.12 of 2016, s 43

6 Right to Information Act No.12 of 2016, s 23

7 Right to Information Act No.12 of 2016, s 26 (6) read with Regulation 4(4) of the Gazette Notification dated 03.02.2017

8 Right to Information Act No.12 of 2016, s 25

9 Right to Information Act No.12 of 2016, s 29

10 Right to Information Act No.12 of 2016, s 5

11 Right to Information Act No.12 of 2016, s 6

12 http://www.rticommission.lk/web/index.php?option=com_content&view=article&id=11&Itemid=142&lang=en (accessed on 10.09.2019)

13 Right to Information Act No.12 of 2016, s 34(1)

14 Right to Information Act No.12 of 2016, s (1) (a)

15 Establishment Code, Chapter 31, s 3

16 Sri Lanka Press Council Law s 32(1)

17 Banking Act No 30 of 1988, s 77

18 Right to Information Act No.12 of 2016, s 30

19 Right to Information Act No.12 of 2016, s 39

Communication by Central Banks

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1. Introduction

Central banks are entrusted with the responsibility of securing price stability and financial system stability in their respective economies. To achieve the objective of price stability, central banks must influence and guide decisions relating to price setting by the numerous stakeholders of the economy. In securing financial system stability, helping people to understand financial risk, reducing asymmetry of information and improving operations of financial markets play a key role. Hence, communication by central banks play a key role in securing both price stability and financial system stability.

In addition, given that central banks are public institutions, they must ensure that the respective parliament, that is, the Principal, as well as the general public in the country are able to assess whether the central bank is fulfilling its responsibilities. Accordingly, communication plays an instrumental role in central banks maintaining accountability. Internal communication by central banks meanwhile, plays a pivotal role in ensuring that they function effectively and efficiently.

2. Monetary Policy Communication

To secure price stability, central banks formulate and implement monetary policy, which, primarily by guiding market interest rates, determine the cost and availability of credit and 'money', and thereby influence and guide price setting in the economy. Central banks enjoy operational autonomy with respect to monetary policy. Hence, there is a need for accountability on the part of central banks with regard to monetary policy formulation and implementation. Accountability, in turn, requires that central banks maintain transparency in relation to monetary policy. To maintain transparency, of course, central banks must communicate to its stakeholders, explaining the underlying reasons for their actions in relation to monetary policy.

The effectiveness of monetary policy meanwhile depends crucially on monetary policy communication. Monetary policy is transmitted via financial markets to the numerous economic agents. Hence, central banks must help both financial market participants as well as other economic agents understand how policy setting by the central bank and the associated operations conducted by the central bank affect the economy, resulting ultimately in the desired level of inflation. Such understanding on the part of economic agents, coupled with central bank credibility, help central banks influence inflation expectations with greater success, thereby increasing the effectiveness of their policy actions. Hence, central bank communication aimed at enhancing understanding of how an economy performs and how the central bank's operations affect it is vitally important for the successful implementation

of monetary policy. The required adjustments in policy rates and the consequent adjustments in market interest rates are also likely to be smaller as a result of greater effectiveness of monetary policy.

The role of communication as a monetary policy tool meanwhile has gained ground in the aftermath of the global financial crisis. While central banks of several major economies resorted to 'quantitative easing', i.e., asset purchase programmes, 'forward guidance' has been used by them as a key monetary policy tool. Forward guidance is communication about the setting of monetary policy tools, going forward. For example, forward guidance could be given regarding the direction of policy interest rates and the timing of any changes to them. The European Central Bank (ECB), for example, has given forward guidance covering a period of about a year, in relation to policy interest rates as well as the quantitative easing undertaken by it. Forward guidance of central banks, by way of providing information regarding their likely response to economic developments, helps anchor expectations about future policy rates and reduce uncertainty.

3. Financial Stability Communication

Accountability on the part of central banks with regard to their conduct in relation to their mandate of securing financial system stability requires that they maintain transparency about the policy action taken by them in that regard. Hence, by way of ensuring transparency, central banks must communicate to the public about the policy action taken for the purpose of securing financial system stability.

Communication meanwhile, plays a vital role in securing financial system stability by helping reduce asymmetry of information, improving the operation of financial markets and helping people understand financial risk. In this regard, in addition to communication by central banks by way of publishing a financial system stability review periodically, publishing data, and issuing press releases, central banks also impose disclosure requirements on the financial institutions they regulate. Financial information which thus becomes available to investors and depositors help them to assess the risks faced by them as investors and depositors.

Communication also plays a key role at times when financial stability risks are building up, as economic agents' behaviours would then need to be steered in a way that helps to prevent a crisis. At times of unease or stress in financial markets too, communication plays a vital role, as coordinated action by different regulators and the Treasury may be required to manage such situations.

4. Prior Notice about Central Bank Communications

Giving prior notice as to when the central bank would announce policy decisions and release various reports, data and information pertaining to its operations, by way of making available a pre-announced calendar is a practice followed by many central banks. Doing so not only helps a central bank to maintain accountability but also gives the same opportunity to all target groups to assimilate the information. With respect to market-sensitive information such as monetary policy decisions, following a clear, pre-announced communication process is of utmost importance. Prior notice must be given regarding the timing and the method of communication pertaining to the release of market-sensitive information.

5. Guiding Principles for Communication by Central Banks

Clarity is of vital importance with regard to central bank communication. While it is best to use simple, clear language, avoiding jargon would help central banks to reach the widest possible audience.

Information imparted by a central bank by way of communicating must be well founded and relevant. Relevance of information imparted is crucial in order to ensure meaningful transparency of the central bank.

A central bank must be held accountable for what it communicates. Hence, any communique released by a central bank must be prepared with utmost care.

Central banks must also maintain professionalism with regard to their communications. Hence, there must not

be any impartiality in a central bank's communications, including any political or personal biases.

It is also important for a central bank to speak with one voice regarding any policy it implements or issues it addresses, as otherwise, the result could be confusion on the part of the public.

6. Modes of Communication

In order to fulfil their responsibilities, central banks need to communicate to different audiences. While their audiences have expanded with the emergence of new technology and social media, the complexities involved in communication have also increased significantly, particularly given the immediacy and saturation of news coverage made possible by technology. In particular, significant amounts of noise could be present in the information available to the different audiences, which could distract the public when central banks are attempting to get important messages across to them. Whilst communication has thus become challenging for central banks, the requisite attention must be paid to tailoring any communiqué issued by them to suit the particular audience.

While a central bank could use its corporate website, speeches by the Governor or other members of the top management, videos, social media, interviews, press conferences, press releases or various reports to get their messages across to different audiences such as the media, the financial sector, the business sector, the Parliament, international agencies, rating agencies, researchers, students, and the general public, given that some of these channels would be more affective in reaching some audiences, the choice of channel to reach the particular audience must be carefully made. Telling stories in pictures, using infographics, as well as the use of videos have become popular in communicating to and educating students as well as the general public, with a view to deepening their understanding of the economy, the financial system as well as the functioning of central banks. Tailoring communication to suit different audiences, taking a 'layered' approach to communication, in fact, helps central banks to reach different segments of the population more effectively.

7. Conclusion

Before the 1990s, central banking was shrouded in secrecy. Thereafter however, particularly following the tenure of Alan Greenspan as Chairman of the Board of Governors of the Federal Reserve System, there has been a steady increase in the willingness of central banks to talk openly about their policy decisions. Subsequently, central banks have increasingly tended to talk openly about decisions that they are likely to make in the future, too.

There has been a marked increase in transparency of central banks alongside the increase in communications by central banks. Further, the increased predictability of policy actions of central banks, particularly monetary policy, as a result of their communications, has helped improve the effectiveness of policy measures taken by central banks.

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