

OPINION

Redefining the money market

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Abstract

The money market has traditionally been defined as the market for marketable short-term securities. It has deep historical roots. Today, it is not an illuminating definition. The genesis of interest rates, which is the quintessence of monetary policy implementation, does not originate in market for marketable short-term securities. It is found in the non-marketable interbank debt market, and spreads out from there. Therefore, the logical starting point in defining the money market is that it embraces all short-term lending and borrowing, direct and indirect via the financial intermediaries. In addition, money creation, that is, new bank lending and its corollary bank deposit creation, is firmly in the province on the money market. Given these, we offer an alternative definition of the money market.

JEL Classification: E44, E50

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1. Introduction

It is an understatement to assert that the money market is a significant part of the financial system. It is the essence of the financial system. It is the market where short-term lending and borrowing meet, where the central bank implements monetary policy, where interest rates have their genesis, and where new money is created. While these elements of the money market are interrelated and cannot

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therefore be separated, we are comfortable in upgrading short-term interest rates to the most significant element. They are targeted by the central bank, are the starting point of the yield curve, and the short-term interest rate¹ is a critical input in the valuation of marketable securities [the rate/s at which future values (cash flows) are discounted to present value].

As stated, all interest rates have their genesis in the money market. The starting point is the key (or policy) interest rate (KIR) of the central bank (in normal circumstances). The KIR is made effective (again, in normal circumstances) in the interbank market, directly influences the interbank rate, and spreads out from this pivotal point to other deposit rates and bank lending rates, and so on to all interest rates. The interbank market is a non-marketable debt market, and the vast majority of bank deposits and loans are non-marketable.

Thus, interest rate and securities' price discovery overwhelmingly takes place in the non-marketable debt and deposit markets. On the other hand, short-term marketable securities are largely price-takers. And yet, the money market remains defined as the market for short-term marketable securities.

The money market has not been subjected to academic scrutiny for decades. This article is an attempt to redefine the money market. We first present a review of the literature, and then an historical perspective, showing the historical roots of the traditional definition. We then move on to an elucidation of the money market and, finally, present an alternative definition.

2. Literature review

A search of the journal literature on the financial markets reveals a paucity of definitions of the money market, in fact nothing. We have therefore reviewed three other forms of literature: financial dictionaries, text books and popular definition-providing internet sites (the latter on the basis that persons familiar with the topic provide the definitions). So as not to clutter the article we have presented the definitions in Appendix 1. Here we provide a summary.

With two exceptions, the definitions of the randomly chosen literature cover the market for marketable money market securities, in the main: Treasury bills, certificates of deposit, commercial paper, bankers' acceptances, and repurchase agreements.

One of the exceptions (McInish, 2000) does not define the money market. Rather, the author defines *money market instruments*: negotiable certificates of deposit, commercial paper, repurchase agreements, call money, Federal funds, and bankers' acceptances. The inclusion of call money and Federal funds, that is, non-marketable debt / deposits, is an indication of the adoption of a wider definition by this author.

The second exception (Rose and Marquis, 2006) makes reference to short-term lending and borrowing, without stipulation of marketability. This is also an indication of a wider definition.

All literature reviewed, with one exception, agrees that the term-to-maturity cut-off point of the money market is one year. The one exception placed the maturity distinction at three years.

The outcome of the literature search is that:

- Overwhelmingly, the definition of the money market is that it is the market for marketable short-term financial securities.
- “Short-term” means one year (one exception).
- Overwhelmingly, the definitions exclude the all-important interbank market (one refers to it only obliquely).
- None include the significant issue of money creation.
- None state that interest rate (price) discovery has its genesis in the money market.

3. Historical perspective

The traditional definition of the money market has its roots in the birth of the money market in seventeenth-century England (and possibly elsewhere, but the English history is well recorded) (Faure, 2011). While the use of the bill of exchange, the first money market instrument to emerge, was “fully established ... as early as the 14th century”, it was sometime later that it came to pass that London became “the monetary headquarters of the commercial world, and the general clearing house of international transactions.”ⁱⁱ

At the centre of the developing monetary system in England (with London at its epicentre) were the “goldsmith-bankers” (transmuted from the gold- and

silversmiths). They “discovered” the miracle of money creation in the 17th century, by issuing their own “goldsmith’s-notes” (Jevons, 1875) to borrowers instead of gold coins, the previous loan-vehicle. (This was of course once the goldsmith’s-notes had become a means of payments, that is, money.) The goldsmith-bankers, in their transmutation to full bankers, also became bill-brokers, that is, brokers in bills of exchange.

A few of the goldsmith-bankers focussed on bill-broking, and the market became known as the “discount market”. In the nineteenth century a major part of the bill-brokers’ business was the holding of inventories of bills of exchange, and funding these holdings by taking call money (one-day maturity) deposits from the banks (which the banks came to regard as their liquid reserves). The bill-brokers became discount houses later in the century (Scammell, 1968), a formally recognised specialist bank.ⁱⁱⁱ The discount houses became the very core of the money market.

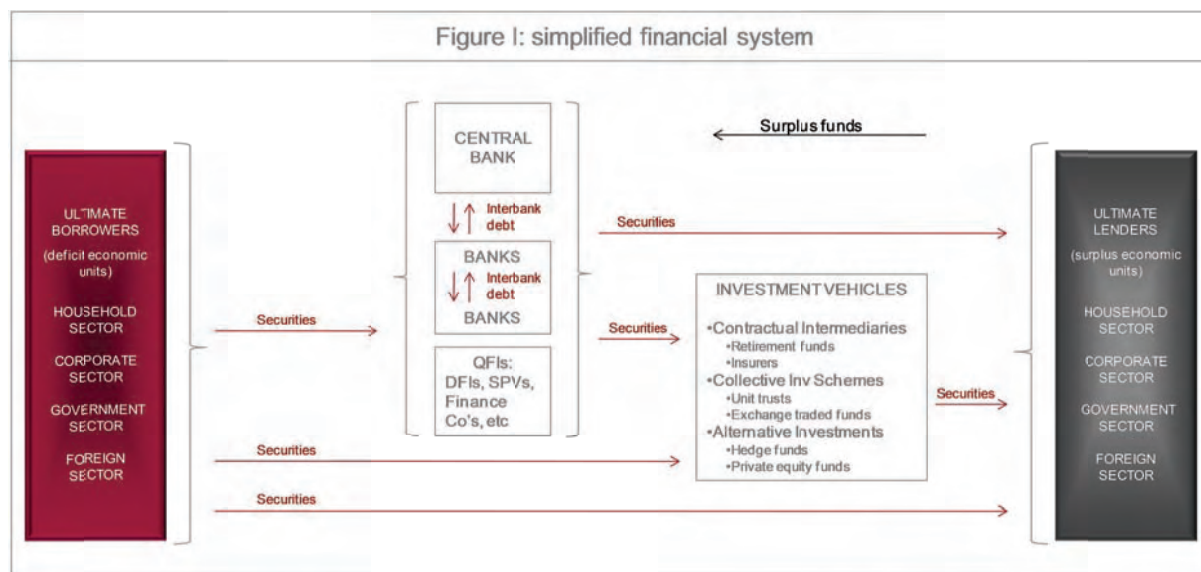
In essence, discount houses took call money deposits from the banks, invested in money market instruments, and made markets in these. As seen, the market was originally dominated by the bill of exchange. This instrument later morphed into the trade bill and even later into the bankers’ acceptance. In the late 18th century the second money market instrument, the Treasury bill, appeared in England. Bankers’ acceptances and Treasury bills were the dominant financial instruments, and the discount houses were the dominant money market institutions.

What is the importance of this historical perspective? It is that price discovery took place in the discount market, which was the province of the discount houses. They “set” the rates for bank call money and for bankers’ acceptances and Treasury bills (and later on the newly created instruments: short-term government bonds, negotiable certificates of deposit, and so on). All other rates took their cue from these rates, including for a long period the discount rate (which applied to acceptances and treasury bills) of the Bank of England (formed in 1694).

However, this is no longer the case. Seen in an historical context, the traditional definition was a fine one. Times have changed (including that the bank acceptance is showing strong signs of demise), particularly in terms of where price discovery has its origin.

4. Financial system

In order to elucidate the money market, we need to present the financial system. It can be depicted in many ways. We favour the Gurley and Shaw (Gurley and Shaw, 1960; Gurley, 1965; Gurley, 1966) approach which has stood the test of time since the 1960s. However, we offer an amended version in Figure I.



The financial system is primarily comprised of ultimate lenders (or surplus economic units) and ultimate borrowers (or deficit economic units). There are two types of financing/funding: directly between lenders and borrowers, and indirectly via financial intermediaries. The latter exist because of the asymmetry in lenders' and borrowers' requirements in terms of term to maturity, risk and liquidity.

Borrowers issue securities (or evidences of debt and/or equity), which are marketable or non-marketable. Financial intermediaries buy these and to fund them issue certificate of deposit securities, which are marketable or non-marketable. Lenders buy the securities issued by the ultimate borrowers and/or the financial intermediaries.

There are three broad groups of financial intermediaries:

- Banks, comprised of the central bank and the private sector banks
- Quasi-financial intermediaries (QFIs), comprised of development financial institutions (DFIs), special purpose vehicles (SPVs), finance companies, amongst others.
- Investment vehicles, comprised of contractual intermediaries (CIs - insurers and retirement funds), collective investment schemes (CISs – securities unit

trusts, exchange traded funds, etc), and alternative investments (AIs – hedge funds and private equity funds).

There are only four categories of financial instruments issued (all are marketable or non-marketable):

- Debt securities (issued by *all* ultimate borrowers and QFIs).
- Equity securities (issued by *corporate* domestic and foreign borrowers).
- Deposit securities (issued by banks).
- Participation interests (PIs) (or units) (issued by investment vehicles).

Debt securities can be split into two categories (marketable or non-marketable):

- Short-term debt securities (1 day - 365/6 days).^{iv}
- Long-term debt securities (365/6 days - infinity^v).

Deposit securities can be split into two categories (marketable or non-marketable):

- Short-term deposit securities (1 day - 365/6 days).^{vi}
- Long-term deposit securities (365/6 days - not longer than a few years).

Financial markets enable the meeting of lenders and borrowers and financial intermediaries, the creation of new debt (and its counterpart, money = private sector deposits in the main), and interest rate / price discovery. There are six financial markets:

- Money market (expanded upon below).
- Bond market (which is the marketable part of the long-term debt market).
- Equity (or stock or share) market.
- Foreign exchange market (the market for the exchange of currencies).
- Market for participation interests (PIs = liabilities of investment vehicles).
- Derivative markets [the markets for forwards, futures, swaps, options and others (such as weather and credit derivatives)].

In summary, the financial system is comprised of six elements:

1. *Ultimate lenders and borrowers*, that is, the non-financial-intermediary economic units that undertake lending and borrowing.
2. *Financial intermediaries*, which intermediate the lending and borrowing process.
3. *Financial securities or instruments*, which are created to satisfy the financial requirements of the various participants. These instruments are marketable (eg. treasury bills) or non-marketable (eg. an utilised bank overdraft facility).

4. *Financial markets*, that is, the institutional arrangements and conventions that exist for the issue (marketable and non-marketable) and trading of the marketable financial securities.
5. *Price discovery*, that is, the price of equity/shares, the price of debt (the *rate of interest*), and exchange rates, are “discovered” (that is, made and determined), in the financial markets.
6. The *creation of money* when demanded. The banks have the unique ability to create their own deposits (= money) because the public generally accept their deposits as a means of payment. This is brought about by the provision of new bank loans.

It will have been noted that we did not elaborate on the definition of the money market in the paragraph starting with “Financial markets ...” above. This was because we sought to present the six elements of the financial system before doing so. Above we did differentiate between long-term and short-term debt and deposit securities, the latter being: *short-term (term to maturity from 1 day to 365/6 days) debt and deposit securities, which are marketable or non-marketable*.

We believe that this is the logical starting point of a new definition of the money market: *all short-term lending and borrowing, direct and indirect via the financial intermediaries*. In addition, two of the six elements of the financial system are *price discovery* and *money creation*. These vital elements of the financial system play out in the short-term debt and deposit market. In the next three sections we will offer the substantiation for their inclusion in a new definition of the money market. The outcome is that the money market is represented in all six elements of the financial system. In fact it is the only market that is.

5. Genesis of price discovery: the interbank market

Figure 1 included a portrayal of the interaction between the banks and between the banks and the central bank. This is the interbank market. As the name indicates, the interbank market is the market for bank loans to, or deposits with, other banks. “Banks” means the central bank and the private sector banks. For the sake of simplicity, here we refer to the central bank as is and to the private sector banks as “banks”.

The interbank market is entirely a *primary market*^{vii}. In this market *no new funds are created*; existing funds are merely shifted around the banking system. It is made up of three sub-markets:

- The bank to central bank interbank market (b2cb IBM), which is an administratively-driven market, and covers the flow of (cash) reserves (R) that banks are required to hold with the central bank in terms of the statutory reserve requirement (RR), a ratio of deposits. In most countries interest is not paid on the balances.
- The central bank to bank interbank market (cb2b IBM) which encompasses the lending of reserves by the central bank to the banks, the outstanding amount of which at a point in time is called the *money market shortage* (MMS) or the *liquidity shortage* (LS) or *borrowed reserves* (BR); central bank loans are provided at the KIR.
- The bank to bank interbank market (b2b IBM), which is the market in which banks lend funds to one another. As this takes place over the banks' settlement accounts with the central bank it is called the *reserve funds* market. The rate that is discovered in this market is the *interbank rate*. In the US this market is called the *Fed Funds* market and the rate the *Fed Funds* rate.

The b2b IBM is where settlements take place between banks as a result of clients shifting funds to other banks and payments that are made by the public which land up with other banks. The movement of funds takes place over the banks' accounts they are obliged to hold with the central bank. Thus, if Client A shifts a deposit of USD 100 million from Bank A to Bank B, this will be reflected in the relevant balance sheets as indicated in Boxes I – III.

BOX I: BALANCE SHEET: BANK A (USD MILLIONS)			
Assets		Liabilities	
Reserves	-100	Deposits (Client A)	-100
Total	-100	Total	-100

BOX II: BALANCE SHEET: BANK B (USD MILLIONS)			
Assets		Liabilities	
Reserves	+100	Deposits (Client A)	+100
Total	+100	Total	+100

BOX III: BALANCE SHEET: CENTRAL BANK (USD MILLIONS)			
Assets		Liabilities	
		Bank reserves:	
		Bank A	-100
		Bank B	+100
Total	0	Total	0

If the banks are not indebted to the central bank, they will meet in the telephone-based interbank market, agree on a rate (the interbank rate), Bank B will lend the funds to Bank A, and their balance sheets will end the business day as indicated in Boxes IV – V (the central bank’s balance sheet will again show a nil change).

BOX IV: BALANCE SHEET: BANK A (USD MILLIONS)			
Assets		Liabilities	
		Deposits (Client A)	-100
		Interbank loan from Bank B	+100
Total	0	Total	0

BOX V: BALANCE SHEET: BANK B (USD MILLIONS)			
Assets		Liabilities	
Interbank loan to Bank A	+100	Deposits (Client A)	+100
Total	+100	Total	+100

However, if the banks are indebted to the central bank (which is the case in normal circumstances – in order to make the KIR effective), Bank B will repay USD 100 million to the central bank, and Bank A will be obliged to take an additional loan of USD 100 million from the central bank(CB) at the KIR. This is indicated in Boxes VI – VIII (note that for the sake of simplicity we have ignored the effect of the change in deposits on RR).

BOX VI: BALANCE SHEET: BANK A (USD MILLIONS)			
Assets		Liabilities	
		Deposits (Client A)	-100
		Loans from CB	+100
Total	0	Total	0

BOX VII: BALANCE SHEET: BANK B (USD MILLIONS)			

Assets		Liabilities	
		Deposits (Client A)	+100
		Loans from CB	-100
Total	0	Total	0

BOX VIII: BALANCE SHEET: CENTRAL BANK (USD MILLIONS)			
Assets		Liabilities	
Loans to banks:			
Bank A	+100		
Bank B	-100		
Total	0	Total	0

Now the key issue: Bank B would not have taken the new deposit at a rate equal to or above the KIR – because it is able to get unlimited reserves from the central bank at the KIR (this is the policy in most countries), and Bank A would not have bid up the rate to a level equal to or higher than the KIR in order to keep the deposit. Thus, both banks took the level of the KIR into account when setting rates. This is why the interbank rate is never equal to or higher than the KIR. The KIR becomes the ceiling rate.

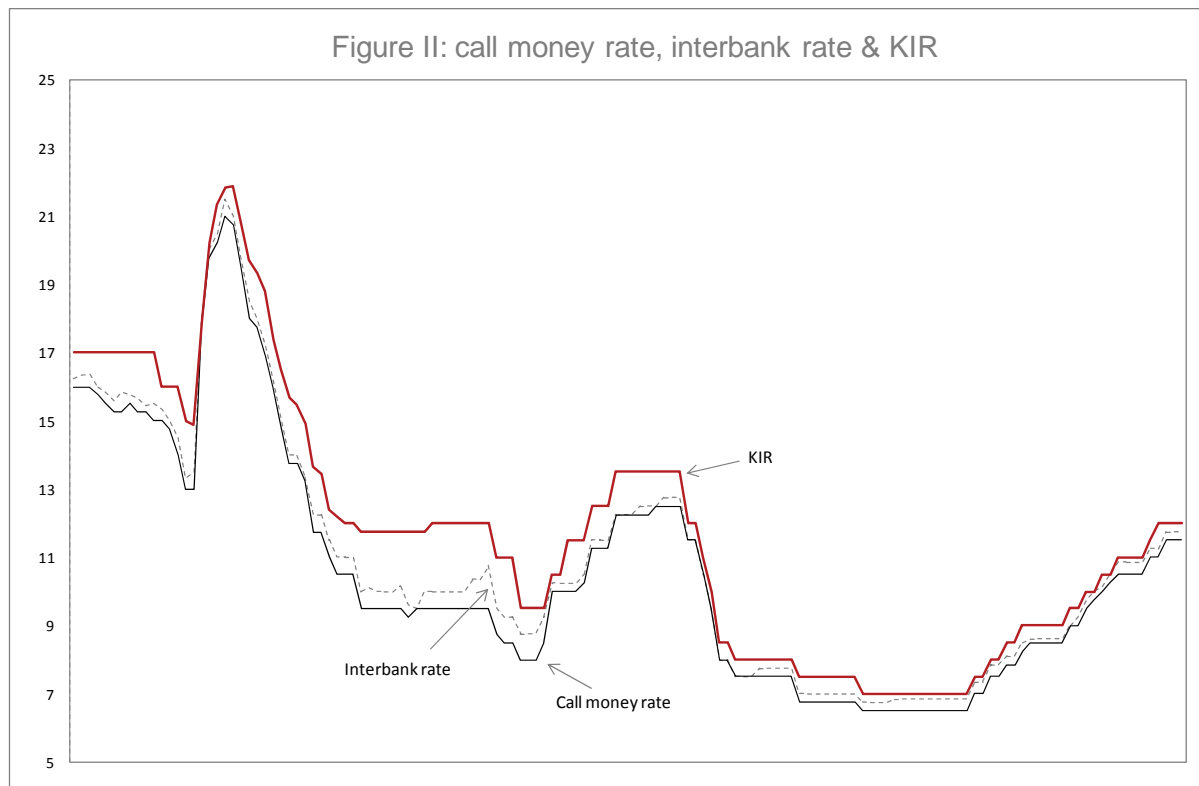
The call money deposit market is the most competitive of all the deposit markets. We assume that the banks and Client A competed in this market. It is likely that the call rate settled at a level below the interbank rate. These three rates are depicted in Figure II for a particular country^{viii} over a period of five years (as at month ends). It is clear that the above analysis is borne out in reality.

A second key issue is: whenever the central bank does a transaction in the money market, it causes a change in the liquidity situation of the banks [as noted, in normal times in most countries the central bank ensures that a liquidity shortage (LS) exists in order to make the KIR effective (that is, to “control interest rates)]. If the transaction is, say, an open market sale of treasury bills to the tune of USD 100 million to Bank A, the balance sheets will change as indicated in Boxes IX – X.

BOX IX: BALANCE SHEET: BANK A (USD MILLIONS)			
Assets		Liabilities	
Treasury bills	+100	Loan from CB	+100
Total	+100	Total	+100

BOX X: BALANCE SHEET: CENTRAL BANK (USD MILLIONS)			
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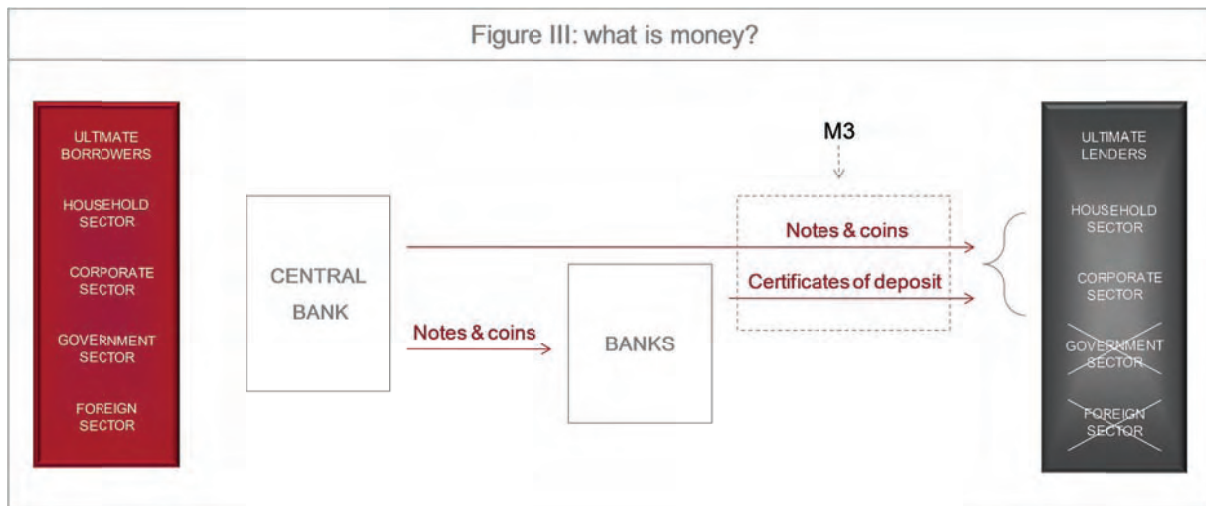
Assets		Liabilities	
Treasury bills	-100		
Loans to Bank A (at the KIR) (borrowed reserves)	+100		
Total	0	Total	0



We do not have the space here to elucidate the significant issue of the central bank's operations in the money market. Suffice it to say that the central bank has the tools at its disposal to control bank liquidity completely. In most countries, it creates permanent LS in order to make the KIR effective, and thus pins down the lower end of the interest rate spectrum.

6. Money creation

There is no consensus on the issue of whether money is created endogenously or exogenously, but there is agreement on the fact that banks create new money. Without delving into the detail, money is bank notes and coins (N&C) and bank deposits (BD^{ix}) held by the domestic non-bank private sector, as indicated in Figure III ($M3 = N\&C + BD$). The vast majority of M3 is made up of BD (95 – 97%), and these are created when banks make new loans (the origin of which is the issue by the goldsmith-bankers of goldsmith's notes as loans, creating a simultaneous liability and asset).



This is perhaps the most elegant feature of the financial system, and the money market in particular: that the demand for short-term funds can be satisfied by the banks through their ability to create money virtually out of nothing other than an accounting entry.

In this respect we dispel two longstanding myths:

- Banks have much money to lend because they have many deposits.
- Money creation starts with a bank or banks receiving deposits.

The banks are fully lent at all times (in normal circumstances). Their assets (loans) are matched by their liabilities (deposits) and equity, but the definitive proof is the existence of a perennial liquidity shortage, as reflected in the accommodation provided by the central bank to the banks at the KIR.

Money creation starts with bank lending. The deposit that is supposed to "put the banks in money" actually comes from bank lending, and the increase in bank liabilities and assets are therefore matched. Therefore, unless there are repayments in the banking system, banks are able to create money by accounting entries (assuming the demand exists). This is one of the wonders of the economic world (because there is virtually an unlimited supply of funds) and will be made clear below.

There are two provisos to new money creation:

- The creditworthiness of the individuals (members of the household sector) asking the bank manager for (demanding) credit, and the feasibility of the projects for which money is demanded by the corporate sector, given the

prevailing rate of interest (linked to prime rate) at which the funds are available.

- The willingness of the central bank to supply the additional cash reserves that are required as a result of the increase in bank deposits (on which the cash reserve requirement is based). A significant feature of the modern financial system is that cash reserves are available in unlimited quantities from the central bank (provided that banks have the collateral – which is not usually an issue). It is the price (the KIR) of the borrowed reserves (central bank loans) supplied and not the quantity that is the cornerstone of monetary policy (in most countries).^x

It will be apparent that the banks are in the business of providing as much credit as is demanded (subject to the first proviso) (after all they do operate in a competitive environment!) and that this is centred on the fact that the public accepts bank deposits as a means of payment (medium of exchange). The proviso here of course is that the money maintains its value, ie that its value is not eroded by inflation, which is the primary objective of monetary policy. This means that it is the central bank's responsibility to ensure that the extent of money creation does not exceed the economy's ability to supply the goods and services demanded. This the central bank executes by influencing the banks' lending rates via the influence of the KIR on bank deposit rates.

An example of money creation follows (see Boxes XI – XIII): Company A sells goods of value USD 100 million to Company B. The latter does not have the funds and acquires an overdraft facility from its bank for this amount. The facility is granted by the bank and Company B duly completes a cheque for USD 100 million which is handed to Company A (in practice this is usually done by EFT). The latter deposits the cheque at his bank. The bank credits Company A's account, sees the cheque is drawn by Company B and debits Company B's account; this of course is a bank loan to Company B.

BOX XI: COMPANY A (USD MILLIONS)			
Assets		Liabilities	
Goods	-100		
Deposits	+100		
Total	0	Total	0

BOX XII: COMPANY B (USD MILLIONS)			
Assets		Liabilities	
Goods	+100	Loan from bank	+100
Total	+100	Total	+100

BOX XIII: PRIVATE SECTOR BANKS (USD MILLIONS)			
Assets		Liabilities	
Loans (Company B)	+100	Deposits (Company A)	+100
Total	+100	Total	+100

Both sides of the banks' consolidated balance sheet increase by USD 100 million. The money stock (= private sector deposits) has increased by this amount and the statistical cause of change is the amount of bank loans extended. The actual cause or real driver of the increase in both loans and money was the demand for loans. Behind that of course is a business deal (demand for goods – gross domestic expenditure). Thus, money creation (= accounting entries) allowed this to take place.

It will be quite evident that the loan was a short-term non-marketable loan and that the deposit was a short-term non-marketable deposit (at least initially). These belong squarely in the money market if one defines the money market as including non-marketable short-term debt and deposit securities.

7. Monetary policy

It will have been noted that in the above we did not include the change that the new deposit will have brought about in the RR. Assuming that the RR ratio is 10% of deposits, then the bank would have taken a loan from the central bank at the KIR in order to comply with the RR (because no bank can create central bank money). This is shown in Box XIV.

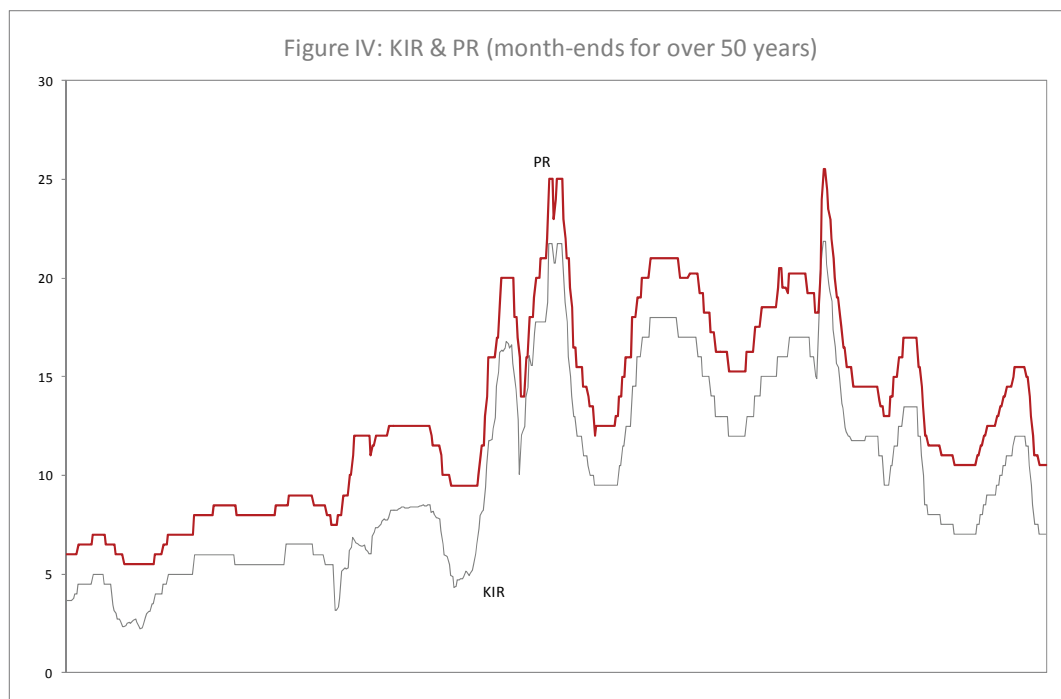
BOX XIV: PRIVATE SECTOR BANKS (USD MILLIONS)			
Assets		Liabilities	
Loans (Company B)	+100	Deposits (Company A)	+100
Required reserves	+10	Loan from CB	+10
Total	+110	Total	+110

We have not discussed this issue in detail because money creation does not revolve around the RR, as proven by the existence of some countries which do not have a RR. In practice, if the above loan took place on 1 March, the bank will only be required to have the reserves late in April (in most countries). By this time the central bank would have done many transactions and the additional RR amount is just one of many factors that will have impinged on bank liquidity. As we have said on many occasions, in most countries (in normal times) the central bank creates a permanent LS in order to make KIR effective.

This is the essence of monetary policy: an LS makes the KIR effective; it influences the interbank rate in the first instance, then the wholesale call money rate, and thereafter all other deposit rates (including negotiable certificate of deposit rates; NCDs are a major short-term marketable instrument). Banks endeavour to maintain a fixed margin (= average loan rates less average deposit rates); therefore the KIR finds its way to all bank lending rates (including the Treasury bill and commercial paper rates – the other prominent short-term marketable instruments).

The central bank thus “sets” the bank lending rates and through this mechanism it influences the demand for bank loans. As we know, satisfied bank loan demand is the cause of new money (deposit) creation. Money creation is the corollary of new bank loans.

As substantiation of the statement that the KIR substantially influencing the banks’ lending rate (bank lending rates are benchmarked on their prime rate) via the bank margin, we present Figure IV. It portrays the KIR and prime rate (PR) for a particular country^{xi} over a period of 50 years. The correlation coefficient is 0.99.



It is clear that financial market price discovery starts with the setting of the KIR, its direct influence on the interbank rates, and so on. This happens in the money market.

8. An alternative definition of the money market

The money market is done a disservice by defining it as the market for the issue and trading of short-term marketable securities (Treasury bills, bankers' acceptances, commercial paper and negotiable certificates of deposit). Today, these markets are price-taking markets.

Price discovery starts in a non-marketable debt/deposit market and ripples out to the larger non-marketable debt and deposit markets, as well as the marketable debt and deposit markets. In addition, the financial system can only expand by bank loan and deposit creation (ignoring bank intermediation for a moment – which is a minor factor, in any case).

In conclusion, we offer an alternative definition of the money market. The money market encompasses:

- The primary markets that bring together the supply of short-term funds (ultimate lenders and financial intermediaries in their capacity as lenders) and the demand for short-term funds (ultimate borrowers and financial intermediaries in their capacity as deposit-takers).

- The secondary market in which existing short-term marketable debt instruments are traded.
- The creation of new money (new deposits) and the financial assets that lead to this (loans in the form of marketable and non-marketable debt securities).
- The interbank market (mainly the cb2b IBM, where interest rates have their genesis, and the b2b IBM, where the central bank's KIR has its secondary impact).

In other words: all short-term lending and borrowing (direct and indirect via financial intermediaries), including the significant interbank market (where interest rates have their genesis), and deposit money creation (the outcome of new bank lending). One can add the money market derivative markets (forward interest rate contacts, forward rate agreements, interest rate caps and floors, interest rate swaps, and money market futures and options) as an appendix.

9. APPENDIX 1: LITERATURE REVIEW

9.2 Introduction

In this appendix we review the literature in three forms: financial dictionaries, text books and popular definition-providing internet sites (the latter on the basis that persons familiar with the topic provide the definitions). A search of the journal literature on the financial markets reveals a paucity of definitions of the money market, in fact nothing.

9.3 Financial dictionaries

Three financial dictionaries revealed the following:

Farlex Financial Dictionary^{xii}:

The trading of highly liquid short-term assets and securities. Examples include U.S. Treasury bills and commercial paper. The money market is often, though not always, included in counts of the money supply. One may trade on the money market either on an exchange or over-the-counter.

Wall Street Words: An A to Z Guide to Investment Terms for Today's Investor^{xiii}:

The market for trading short-term, low-risk securities such as commercial paper, U.S. Treasury bills, bankers' acceptances, and negotiable certificates of deposit.

The market is made up of dealers in these securities who are linked by electronic communications.

Dictionary of Financial Terms^{xiv}:

The money market isn't a place. It's the continual buying and selling of short-term liquid investments. Those investments include Treasury bills, certificates of deposit (CDs), commercial paper, and other debt issued by corporations and governments. These investments are also known as money market instruments.

9.4 Text books

Some of the well-known economics textbooks revealed the following:

McInish^{xv}:

No definition; only definitions of money market instruments: negotiable certificates of deposit, commercial paper, repurchase agreements, call money, Federal funds, bankers' acceptances.

Blake^{xvi}:

Money markets deal in securities with less than one year to maturity ... Examples of money market instruments are Treasury bills, commercial bills, commercial paper, bankers acceptances (sic) and negotiable certificates of deposit.

Bodie, Kane and Markus^{xvii}:

The money market is a subsector of the fixed-income market. It consists of very short-term debt securities that are usually highly marketable. Many of these securities trade in large denominations, and so are out of the reach of individual investors.

Bailey^{xviii}:

Money markets exist to facilitate the exchange of securities such as treasury bills ... or other loans with a short time to maturity.

Rose / Marquis^{xix}:

The money market is designed for the making of short-term loans. It is the institution through which individuals and institutions with temporary surpluses of funds meet the needs of borrowers who have temporary funds shortages (deficits). Thus, the money market enables economic units to manage their liquidity positions. By convention, a security or loan maturing within one year or less is considered to be a money market instrument. One of the principal functions of the money market is to finance the working capital needs of corporations and to provide governments with short-term funds in lieu of tax collections. The money market also supplies funds for speculative buying of securities and commodities.

9.5 Popular internet sites

An internet search brought forth the regular websites which define almost everything, including the money market. The following was revealed from the popular sites^{xx}:

Investopedia^{xxi}:

A segment of the financial market in which financial instruments with high liquidity and very short maturities are traded. The money market is used by participants as a means for borrowing and lending in the short term, from several days to just under a year. Money market securities consist of negotiable certificates of deposit (CDs), bankers acceptances (sic), U.S. Treasury bills, commercial paper, municipal notes, federal funds and repurchase agreements (repos).

Wiki.answers.com:

Money market securities are short-term instruments with an original maturity of less than one year. These securities include Treasury bills, commercial paper, federal funds, repurchase agreements, negotiable certificates of deposit, banker's acceptances (sic), and Eurodollars. Money market securities are used to "warehouse" funds until needed. The returns earned on these investments are low due to their low risk and high liquidity.

***Wikipedia*^{xvii}:**

The money market is a component of the financial markets for assets involved in short-term borrowing and lending with original maturities of one year or shorter time frames. Trading in the money markets involves Treasury bills, commercial paper, bankers' acceptances, certificates of deposit, federal funds, and short-lived mortgage- and asset-backed securities. It provides liquidity funding for the global financial system. Money markets and capital markets are parts of financial markets.

ⁱ There are many short-term interest rates. In this text we use the term “the short-term interest rate” in a generic sense. In the valuation of securities different rates are used.

ⁱⁱ Jevons, 1875.

ⁱⁱⁱ Discount houses existed in England until the 1980s. Before this the concept was exported to many parts of Africa. At the time of writing (March 2012) there are two discount houses remaining: in Malawi (the author is on the board of directors of one of them).

^{iv} A major proportion of debt securities are short-term in maturity (mainly overdraft facilities utilised).

^v To accommodate perpetual bonds.

^{vi} The overwhelming majority of deposit securities are short-term in maturity.

^{vii} Except for bank trading in existing negotiable certificates of deposit.

^{viii} South Africa.

^{ix} Bank deposits [certificates of deposit (CDs)] are made up of negotiable certificates of deposit (NCDs) and non-negotiable certificates of deposit (NNCDs), mainly the latter.

^x The reason the second "proviso" is even mentioned is because there are some central banks (which were visited by the author) that still believe that they are not responsible for destroying cash reserves if they sell assets or increase liabilities (such as notes issues); bizarrely, they believe that the banks are the cause and should therefore be penalised. Conversely some central bankers believe that a money market surplus (ie positive balances on the banks' settlement accounts with the central bank) is caused by the banks and not by their own purchasing of assets or decreasing liabilities (such as the sale by the banks of bank notes back to the central bank).

^{xi} South Africa.

^{xii} Farlex Financial Dictionary, 2011.

^{xiii} Scott, 2003. Accessed from Farlex Financial Dictionary, 2011.

^{xiv} Dictionary of Financial Terms, 2008. Accessed from Farlex Financial Dictionary, 2011.

^{xv} McInish, 2000.

^{xvi} Blake, D, 2000.

^{xvii} Bodie, Z, Kane, A, Marcus, AJ, 1999.

^{xviii} Bailey, RE, 2005.

^{xix} Rose, PS, Marquis, MH, 2006.

^{xx} Note that these are quoted because they would be supplied by persons familiar with the topic.

^{xxi} Investopedia, 2012.

^{xxii} Wikipedia, 2012.

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