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# Repurchase Agreements in Financial Markets : Legal and Financial Prospective\*

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## **Abstract:**

This study examines the role of repurchase agreements as an instrument for Banks to raise finance in the money market. Repurchase agreements relate to many legal and financial aspects, however, this study concentrate on the subject from commercial law point of view with reference to any financial issues that may arise. This study explore the instrument used as collateral securities in repurchase transactions, the role of participants in the repurchase market, and the different types of repurchase arrangements available in the market. The legal status of these agreements is discussed under Kuwaiti law and from Islamic sheria point of view. Finally, the study describes the advantages, the supplementary facilities, and the risk involved in repurchase agreements.

## **1. Introduction:**

From time immemorial, mankind is known to have traded one good for another to obtain the necessities of life. Trading is a game of probabilities. A strong determination, statistically proven strategies and strict money management capabilities are crucial in tackling the problems in money market in order to make the market favorable for the trader. With the introduction of diverse products in the economy the financial market has become further complex. The main function of the financial market is to transfer funds from lender to the

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borrower. Based on the transaction 'lending' and 'borrowing' the financial market is classified into capital market and the money market. The money market is an investment area where investors can buy short-term debt securities.<sup>(1)</sup> Money market securities are highly marketable, easily convertible into cash and have the shortest maturities than any debt securities. Money market investments are the short-term debts that mature from anywhere in one day to one year.<sup>(2)</sup> The major participants in the money market are commercial banks, governments, corporations, government-sponsored enterprises, money market mutual funds, futures market exchanges, brokers and dealers, and the Federal Reserve.<sup>(3)</sup> Banks have three major roles to play in the money market. They borrow money in the money market to fund their loan portfolios and to satisfy non-interest bearing reserve requirements at Federal Reserve Banks. Banks are the main contestants in the market for reserve funds, which are very short-term overnight loans of immediately available money.<sup>(4)</sup> The borrowing and lending of the reserves takes place at a reasonable interest rate, which is known as the federal funds rate. Banks also borrow money in the money market for longer periods by issuing large negotiable certificates of deposits (CDS) and by acquiring funds in the Euro dollar market.<sup>(5)</sup> Negotiable CDs are often issued for an amount of \$100,000 or more. But only if the value is 1 million or more it can be traded. The final way the banks raise finance in the money market is through Repurchase Agreements.

There were tremendous changes in the use of repurchase agreement as a money market instrument in the developed markets during the last decade. Within a short span of time Repo has evolved as a very useful money market instrument which makes possible the smooth adjustment of short term liquidity among the various money market participants like banks, financial institutions and securities and investment firms. Compared to other non-collateralized instruments

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- (1) Debt securities are evidence of a debt sold to an investor with the promise that it will be paid back with or without interest at the end of a specified period.
  - (2) Stigum, Marcia. "The Money Market". 3rd ed. Burr Ridge, Illinois: Irwin Professional Publishing, 1990.
  - (3) Richmond Va.: Article published by Federal Reserve Bank of Richmond, Virginia 1993.
  - (4) Cook, Timothy Q and Robert La Roche, eds. "Instruments of the money market", 7th Ed. Federal Reserve Bank of Richmond, 1998.
  - (5) CD is a certificate issued by the bank as an evidence that certain amount of money has been deposited for a period of time ranging from one to six months and will be redeemed with interest on maturity.

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Repo is considered to be a much safer instrument since it is backed by securities and it is fully collateralized.<sup>(6)</sup> Central Banks around the world use the Repo as a very powerful and flexible instrument for absorbing or infusing liquidity.<sup>(7)</sup>

No doubt that repurchase agreements raise many legal and financial aspects and certain fields of law in particular may be involved. However, this study will concentrate on the subject from a commercial law point of view with reference to any financial issues that may be related to the subject.

This chapter, therefore, gives a somewhat detailed description on the concept, characteristics, calculation as well as gives a general idea on categorization and documentation of repurchase agreements.

### **1.1 Definition and the Repo Objective**

Repurchase Agreements can be defined as agreements between two parties whereby a money market participant acquires funds which are immediately available by selling securities and simultaneously agreeing to repurchase the same or similar securities after a specified period of time at an agreed price, which normally include interest at an agreed upon rate.

A Repo transaction is a transaction wherein the securities are sold by one party (the seller) to another party (the buyer) with a commitment on the part of the seller to repurchase the equivalent securities from the buyer and a corresponding commitment on the part of the buyer to sell the equivalent amount of securities back to seller on a certain date on a certain time, both such date and time being fixed as part of the transaction. The contract requires that the seller should repurchase the securities at a price

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(6) A report from BIS (Bank for International Settlements), "Implications of Repo markets for Central Banks", CGFS Publication No. 10 March 1999. The work on this Report was initiated in 1997 on the decision of the Euro-currency standing committee that interested central bank members should form a working group on Repo markets based on a proposal in a pilot study by the National Bank of Belgium. The working group under the chairmanship of the National Bank of Belgium, included the Bank of Canada, Bank of England, Bank of France, Bank of Italy, Bank of Japan, Deutsch Bundes bank, European Central Bank, Federal Reserve Bank of New York, Netherlands Bank and the Bank of Sweden.

(7) Ibid.

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higher than what it was sold for.<sup>(8)</sup> This difference between what the buyer paid and what the seller repaid is called the Repo rate.

Term Repos are repurchase agreement for a period of 30 to 90 days. The rates associated with the term Repos are called the term Repo rate.<sup>(9)</sup> They cannot be sold in the open market as they are personalized to the original seller's and buyer's requirements. Over night Repos last only for a day which put them at the shortest end of maturity array. Securities are equivalent to other securities for the purpose of this framework if they are of the same issuer or part of the same issue or of identical type, nominal value, and description as that of other securities.<sup>(10)</sup> As Repos are short maturity collateralized instruments they have strong linkages to securities markets, derivatives markets and other short term markets such as inter banks and money markets.

Repos will come under the definition of investments as far as the purchaser of the securities is concerned as title of securities bought is transferred to the buyer. One advantage of the Repo transaction is that the seller will get his required cash for a short period without actually losing his investment portfolio. In addition Repo can be used for leverage, to fund long positions in securities, and to fund short positions for hedging interest rate risks. If handled properly Repo transactions give a higher yield especially if backed by money market securities. The main distinguishing factor of Repo is that that can be used either to obtain funds or to obtain securities. This latter feature is valuable to market participants as it allows them to obtain the securities they need to meet their other contractual obligations, such as to make delivery for a future contracts. In addition Repo can be used for leverage, to fund long positions in securities, and to fund short positions for hedging interest rate risks.<sup>(11)</sup>

Reverse Repurchase agreements. A party who sells and later repurchases the security is said to perform Repo. But there are transactions where the party first purchases the security and later resells

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(8) Morwan Awad, Foreign Money, Investment and financing between Practice and theory, Amman, 1988,P.273.

(9) Morwan Awad, Op.cit., P.270.

(10) A Report from Ameritrade, division of Ameritrade IP Co. Inc, member of NASD/ SIPC Investing online at Ameritrade' Precious Information LLC 1999.

(11) Board of Governors of the Federal Reserve System. Bank Holding Company Supervision Manual. Section 2150.0, "Repurchase Transactions."

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it.<sup>(12)</sup> This type of transactions is called reverse Repos or 'matched sale purchase agreements. This transaction is the mirror image of the Repo.<sup>(13)</sup> It is in 1970's reverse Repos came into actual practice.<sup>(14)</sup> These transactions are sometimes termed as resale agreements or as a security purchased under agreement to resell (SPAR).<sup>(15)</sup> When viewed from the perspective of the supplier of the securities the transaction can be called Repo and from the point of view of the supplier of the funds it is reverse Repo. Though these transactions are termed on the basis of who initiated the transaction there are also exceptions to it. In the case of transactions between the dealer and the retail customer or between the Federal Reserve the transaction is usually determined from the perspective of the dealer. The retail investor's purchase of securities from the dealer and agreement to resell is termed as Repo because the dealer enters into agreement by the sale of the securities on an agreement to repurchase. Likewise when the Federal Reserve tries to raise funds temporarily by buying securities from the dealers with a commitment to resell the transaction is called Repo. If the agreement is vice versa i.e., if the securities are sold from the Federal Reserve and simultaneously repurchased for settlement on the desired date is called matched sale purchase agreements.

A dealer acts, in many instances, as intermediary between ultimate borrowers and suppliers of funds in the Repo market. A dealer acts, as principal on each side of such arrangement, not as agent, borrowing funds from one party (against sale of securities) and re-lending the funds to another party (against the receipt of securities). The combination of Repos and reverse Repos in this fashion is termed as 'a Repo book'. A Repo book in which Repo and reverse Repo have equal terms to maturity is referred to as 'matched book'. Matched books became wide spread in 1980s.<sup>(16)</sup>

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(12) For more information see <http://www.riskglossary.com/link/repo.htm>.

(13) Stigum, Marcia. "The Repo and Reverse Markets". Homewood, Illinois: Dow Jones-Irwin, 1989.

(14) Asset International Inc "Trader's Guide to Repo Market, International Inc", Asset Publication (1995).

(15) Board of Governors of the Federal Reserve System. Commercial Bank Examination Manual. Section 2030.1, "Bank Dealer Activities."

(16) Ibid.

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Why organizations are attracted to matched sale purchase agreements is that they will get profit spread when they receive back the money at the maturity date from the counter party. So that the money which otherwise remains idle can be properly utilized. This can be closely associated with the sale purchase agreements. The governments use these types of transactions to offset temporary fluctuations in bank reserves.

While Repos and matched sale-purchase transactions may be secured by government securities, each party to the transaction should be confident about the creditworthiness of the other party and the other party's ability to fulfill the terms of the agreement. The parties also should be assured that the relationship of the purchase-and-sale proceeds to the value of the securities is appropriate. The proceeds of the RP are slightly less than the full value of the securities purchased. This difference in value is referred to as margin and serves as protection for the initial purchaser if in case security prices decline.

The Repo is also called a ready forward transaction since funds can be raised by selling security on a ready or spot basis and can be repurchased on a spot basis. When a body sells a security to another body on repurchase agreement basis and concurrently purchases some other security from the same entity on resell basis it is called a double ready forward transaction. The temporary inflow of cash from the Repo transactions can be used in the money market to meet the short-term money market fluctuations at a comparable cost.

## **1.2 Characteristics of Repo Agreements.**

Repo rate is the annualized interest rate for the funds handed over by the lender to the borrower. Generally, the rate at which it is possible to borrow through a Repo is lower than the same offered on unsecured (or clean) inter bank loan because of the reason that in a collateralized transaction the credit worthiness of the issuer of the security is often higher than the seller.<sup>(17)</sup> The interest rate paid on the Repos is determined by the Repo counter parties and is independent of the coupon

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(17) Erich Spornli (Director, Swiss National Bank), The Repurchase Agreement (Repo) as a Monetary Policy Instrument.

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rates or the rates on the underlying securities. Other factors affecting the Repo rate include, the credit worthiness of the borrower, liquidity of the collateral and comparable rates of other money market instruments. Repurchase agreements can be considered as close substitutes for the federal funds borrowing, so the institutions that have direct access to both the markets should keep the Repo rate and the federal funds transactions in close relationship to each other. Other than the commercial banks these institutions include the savings and the loans associations, mutual savings bank, credit unions etc. This is made possible in such a way that when the demand for the reserves is high relative to the existing supply, institutions bid more insistently for federal funds thereby putting upward pressure for the federal funds rate. If on the other hand if the fund rate rises some institutions will turn to Repo market to raise funds, which puts upward pressure on the Repo rate. Both rates will continue to rise until the demand and supply for the reserves in the banking system is in balance. So it can be said that Repo functions on a demand and supply basis. The overnight federal funds rate generally exceeds the overnight Repo rate reflecting the compensation investors require for lending unsecured in the federal funds market rather than investing in a collateralized Repo agreement. There were fluctuations in the spread between the federal funds rate and the Repo rate, widening when there is a rapid increase in the fund rate and narrowing when it is steadily declined or stabilized, despite the consequences of the overall level of rates. The availability of eligible collaterals as well as the apparent risk aspect is also factors, which bring about changes in the spread. Due to the negligence of the government securities dealers if the security of Repo itself is called in question as well as at times the additional financial burden also bring about chronically tight as well as negative spreads between the federal funds and the Repo rates.

Repo transactions are usually arranged in large dollar amounts. Overnight contracts and term Repos with a week's maturity or less is arranged in amounts of \$25 million or more and blocks of \$10 million are common for longer maturity term agreements. Although a few Repos are negotiated for amount under \$ 100, 000 the smallest customary amount for transactions with securities dealers is \$1 million.

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Because of the rapid development in the types and volumes of arrangements the Repo market has become the largest and the most liquid financial market in the world.

In a Repo transaction where there are two legs of transactions viz. selling of the security and repurchasing of the same, in the first leg of the transaction for a nearer date, sale price is usually based on the prevailing market price for outright deals. In the second leg, which is for a future date, the price will be structured based on the funds flow of interest and tax elements of funds exchanged. This is on account of two factors. First, as the ownership of securities passes on from seller to buyer for the Repo period, legally the coupon interest accrued for the period has to be passed on to the buyer. Thus, at the sale leg, while the buyer of security is required to pay the accrued coupon interest for the broken period, at the repurchase leg, the initial seller is required to pay the accrued interest for the broken period to the initial buyer. <sup>(18)</sup>

Transaction-wise, both the legs are booked as spot sale/purchase transactions. Thus, after adjusting for accrued coupon interest, sale and repurchase prices are fixed so as to yield the required Repo rate. The excess of the coupon at the first leg of Repo would represent the coupon interest for the Repo period. Thus, the price adjustment depends directly upon the relationship between the net coupon and the Repo amount worked out on the basis of the Repo interest agreed upon the total funds transferred. When Repo rate is higher than current yield repurchase price will be adjusted upward signifying a capital loss. If the Repo rate is lower than the current yield, then the repurchase price will be adjusted downward signifying a capital gain.

If the Repo rate and coupon are equal, then the repurchase price will be equal to the sale price of security since no price adjustment at the repurchase stage will be required. If the Repo rate is greater than the coupon, then the repurchase price is adjusted upward (with reference to sale price) to the extent of the difference between the two. And, if the Repo rate is lower than the coupon then, the repurchase price is adjusted

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(18) Based on a Report by Equity Analytics Ltd.

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downward (with reference to sale price). Specifically, in terms of Repo rate, there will be no price adjustment when the current yield on security calculated on the basis of sale value (including accrued coupon) is equivalent to Repo rate.

In accounting of Repos and valuation of collateral certain norms are being considered. Generally securities used in Repos as collateral are valued at current market price plus accumulated interests (on coupon bearing securities) calculated to the maturity date of the securities minus “margin” or “haircut”. The size of the haircut will depend on the Repo rate, risk of the securities involved in the transaction and the coupon rate of the underlying securities. The haircut is intended to protect the lender or the borrower of the market fluctuations depending on how the transaction is priced.

The fluctuations in the market are a concern for both the seller as well as the borrower so it is a common practice to reflect to the changes in market price by resorting to marking to market. So if the market price of the collateral goes high beyond a certain limit the lender is required to return the additional collateral to the borrower. Or if the market price of the Repo securities drops down considerably the borrower is required to pay additional amount to compensate the loss.

### **1.3 Maturity Date of Repo.**

More often than not repurchase agreements are arranged for short terms usually overnight or for few days. Longer-term repurchase agreements are consigned for standard maturities of one to three weeks or one to three or even six months. Repos are usually arranged in an “open” or continuing basis. Continuing contracts are like a sequence of overnight Repos. They are renewed each day with the Repo rate or the amount of funds invested or adjusted to reflect the prevailing market condition. On the Repo close date, which is the maturity date, underlying the Repo the reverse participants receives the redemption value of the securities and the last coupon value from the treasury (if any). In lieu of returning the securities the reverse participants returns the redemption value of the securities. If the market rate of the securities being held as the

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collateral were to fall considerably below an agreed level the borrower would be asked to return the fund or provide additional securities.

In Repo markets banks operate on both sides as borrowers and lenders. When a Repo is enunciated banks will issue a confirmation on the sale of securities to the customer together with a confirmation of the bank's obligation to repurchase them. The securities used in repurchase agreements can be kept in the safe custody of the banks as well as can be delivered to the customer. The initial sales and repurchase agreements are based on the same dollar price at an agreed upon rate of interest paid to the initial buyer by the seller at the time of repurchase. The repurchase agreements are quoted on a yield basis and the yields vary according to money market conditions. It is based on the principle that the lender of the funds should benefit from such transactions. In some cases it is made possible by setting a negotiated repurchase price above the initial sale price the difference between the two being the interest paid to the lender. Or the sale and the repurchase price will be the same with an agreed upon rate of interest being paid separately by the borrower on the settlement date. It is to be noted that the provider of funds in a standard Repo transaction earns only the agreed upon rate of return. If a coupon payment is made on the underlying securities during the term of agreement it is a common practice for the Repo borrower to receive the payment.

#### **1.4 Categorization of Repos and the Documentation Procedures**

Broadly classified there are four types of Repo. These classifications are based on the maturity of underlying securities, pricing, term of Repo etc. These include buy sell back Repo, classic Repo, bond borrowing and lending and tripartite Repos. <sup>(19)</sup>

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(19) Ironically, in August, 1973 as a measure to curb the development of Repo which they feared would become devices for evasion of limits on interest regulation, the federal regulatory agencies introduced Retail Repo or 89 day Repurchase Agreement. But it is used today by quite many banks and is gaining popularity as a result of the competition among various financial institutions to gain depositor's funds. The legal practical difficulty in marketing the retail Repo makes it highly mandatory that the banks which enter in these program should acquire proper legal and financial advice.

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**Buy/ sell Repo:** In a buy sell Repo the security is sold and bought back simultaneously on settlement on a future date. Here the lender is actually taking possession of the collateral. The title is passed on to the buyer and so he can retain any coupon interest due on the bonds. The forward price of the bond is set in advance at a level, which is different from the spot clean price by actually adjusting the difference between Repo interest and coupon earned on the security. The spot buyer/ borrower of securities in effect earns the yield on the underlying security plus or minus the difference between this and the Repo interest rate.

**Classic Repo:** In Classic Repo at first there is the sale of securities with a promise to repurchase it back at a future date. Here both the initial sale price and the repurchase price will be same. But a separate interest is being paid. In this system the securities are just a collateral for the loan and the seller will get the coupon income.

In hold in custody Repo the seller will hold in custody the Repo so the settlement requirements are not required.

**Bond lending or borrowing transaction:** In a bond lending or borrowing transaction the customer lends bonds for an open ended or fixed term in return for a fee. The fee charged will be depended on the type of the underlying instrument, size and term of the loan and the credit rating of the counter party. The transaction would be taken care of by an agreement on securities lending and cash or other securities of equal value could be provided as collateral in the transaction.

**Tripartite Repo:** In the case of a tripartite Repo a common custodian/ clearing agency arranges for custody, clearing and settlement of Repos transactions. They operate under a standard global master purchase agreement and provides for DVP system, substitution of securities, automatic marking to market, Reporting and daily administration by single agency which takes care of the risk on itself and automatic roll over while does not insist on disclosing the identities by counter parties. The system starts with signing of agreements by all parties and the agreements include Global Master Repurchase and Tripartite Repo Service Agreements. This type of arrangement minimizes

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credit risk and can be utilized when dealing with clients with low credit rating.

**Documentation procedures:** Most of the jurisdictions require Repo to be documented. In Europe and western countries both the legs of the Repo is required to be in the form of written agreement. While in the USA it is the PSA Agreement, which is in vogue, in Europe the PSA/ISMA General Master Repo Agreement is increasingly used in the case of domestic Repos. These agreements clearly define the rights and obligations as well as the rights of re-pricing and events of default. According to these contracts the traders are allowed to set off against each other on the default or insolvency of either the parties. If on the other hand Repo is undertaken as a securities lending transaction similar protection is guaranteed under the Overseas Securities Lending Agreement (OSLA) Developed by the International Stock Lender's Association.

The master agreements set out the relationships between the parties and all matters like the definitions, delivery and payment obligation of the parties, margin mechanics, right of substitution, treatment of securities on income involved, notice provisions etc. The matters which are to be included in the agreement are provisions for absolute transfer of title to securities, marking to market of transactions, appropriation of the initial margin and the maintenance of market whenever the mark to market reveals a material change of value. The events of default and consequential rights and obligations of the counter parties should also be clearly defined. Further details of full set of claims in the event of default between the counter parties, clarifications of the rights of the parties regarding substitution of the collateral and the treatment of coupon and interest payments in respect of securities subject to it including for example the timing of any payments should also be defined.

### **1.5 Calculations of Repo Returns**

Repo returns are calculated on an investment basis with a bank discount. The amount of interest earned on the funds of the Repo can be determined in the following way (in dollar rates)

Interest earned = funds invested x RP rate x (number of days/360).

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For example, a \$1 million overnight RP investment at a 5.75 percent rate would yield an interest return of \$159.72.

$$\$1,000,000 \times 0.0575 \times (1/360) = \$159.72.$$

If the funds were invested in a ten-day term agreement at the same rate of 5.75 percent, the investor's interest earnings would look as follows:

$$\$1,000,000 \times 0.0575 \times (10/360) = \$1,597.22$$

During 1991-1992 periods the spread was largely negative it might be due to the unwillingness of the banks to enter into arbitrage to rule out the disparity.

If the investor had entered into a continuing Repo and has withdrawn after 5 days and the initial interest rate agreed to be 5.75 then the return would be \$802.22. This can be explained with the following chart. <sup>(20)</sup>

Day	RP Rate	Calculation	Interest
First day	5.75	$\$1,000,000 \times 0.0575 \times (1/360) =$	\$159.72
Second day	5.80	$\$1,000,000 \times 0.0580 \times (1/360) =$	\$161.11
Third day	5.83	$\$1,000,000 \times 0.0583 \times (1/360) =$	\$161.94
Fourth day	5.78	$\$1,000,000 \times 0.0578 \times (1/360) =$	\$160.56
Fifth day	5.72	$\$1,000,000 \times 0.0572 \times (1/360) =$	\$158.89
Total interest earned:			<hr/> \$802.22

A suitable dealing and settlement system is a vital element in the Repo transactions. However many countries have adopted alternative approaches ranging from the development of an in house solution through to the purchase of an existing solution. The key features of the system incorporated are always the delivery versus the payment mechanism, confirmation and matching of trades with automated settlement, an extensive registry sub registry system with full Reporting

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(20) Stephen A. Lumpkin "Repurchase and reverse repurchase agreements" Article published by Federal Reserve Bank of Richmond Virginia 1998.

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capabilities on the holders turnover, closing of books, record dates, reconciliation etc.

## **2. Collateralization**

Collateralization is a means of securing credit exposure to a counter party. In the case of collateralization a party owes an obligation to another party and in the case where this party defaults the other party can take hold of the collateral. Instead of collateral the term 'margin' is also widely used.

### **2.1 Instruments Used as Collateral Securities**

There are several instruments, which can be used as collateral security in, repurchase transactions viz., Government dated securities, Treasury Bills, corporate bonds, money market securities and equity. Usually a secured party will prefer highly rated collateral like the treasury or agencies.

#### **2.1.1 Treasury Bonds, Bills, Notes.**

Treasury bills are short-term obligations, which are issued for a term of one year or less from their maturity date.<sup>(21)</sup> Bills have the largest volume outstanding and the most active secondary market of any money market instruments. Because bills are devoid of any default risks while other money market instruments have some default risks and the bills have the lowest interest rate at a given maturity date. The treasury bills are bought at a value less than their par value and at the maturity the amount is paid back along with the par value. Treasury bills are sold at a discount and interest is not paid before the maturity date. The difference between the purchase price and the price that is paid at the maturity date is the interest earned on the bill.

13 week or 26 week bills are offered every week. Unless it is a holiday or there is some unavoidable circumstances the offer is usually announced on Thursday and the bills are auctioned on the following

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(21) Timothy Q. Cook "Treasury bills" Article published by Federal Reserve Bank of Richmond, Virginia 1998.

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Monday. After the bills are auctioned the following Thursday the bills will be issued. Depending on the needs the cash management bills are issued from time to time and the time gap between the offer, announcement and issue will be short i.e., 1-7 days.

Treasury notes and the bonds are securities that pay a fixed rate of interest every 6 months until the maturity date (till the par value is paid off).<sup>(22)</sup> It will be stated in the Treasury bonds and notes the interest rates and the owner will receive the interest semiannually. The only difference between the treasury bonds and notes is the length between the maturity. Treasury bonds are long-term obligations, which may extent to 10 years and more, but treasury notes are issued for a term of 1 year and will not exceed more than 10 years. Treasury bonds, bills and notes are sold both in a competitive and noncompetitive bidding. About a week before the auction the department of treasury will issue a press release announcing the date of auction, the amount to be sold and other details of the securities to be issued. Treasury sources offices are the source from which one can gain details of the auction. For all treasury bills, notes and securities the minimum amount is \$1000 whereas one can buy the savings bond for \$25. The treasury bills, notes and bonds are not redeemable before the maturity date. But treasury bills issued before 1986 are subject to call by the treasury department before the maturity date. Once these are called they will stop earning interest.<sup>(23)</sup>

2-year treasury notes are issued once in a month. The notes are usually announced once in a month and will be auctioned one week later. The notes will be issued on the last of the month and if the last day is a Sunday or Saturday or is a public holiday it will be issued on the first business day of the next month.

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(22) Ibid.

(23) Cook, Timothy Q. "Determinants of the Spread Between Treasury Bill and Private Sector Money Market Rates," *Journal of Economics and Business*, vol. 33 (Spring 1981), pp. 177-87, and Thomas Hahn. "Interest Rate Expectations and the Slope of the Money Market Yield Curve," *Federal Reserve Bank of Richmond Economic Review*, vol. 76 (September/October 1990), pp. 3-26

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5-year note and 10 year note auctions are usually announced on the first Wednesday of February, May, August, and November. They are normally auctioned on the second week of February, May, August and November and issued on the 15th of the same month. If the 15th falls on Saturday, Sunday or a federal holiday it will be issued on the next business day of the same month. The 5-year notes were formerly issued on a monthly cycle. Inflation-indexed security (note or bond) auctions are usually announced on the first Wednesday of January, July, and October. They are generally auctioned during the second week of January, July, and October, and are issued on the 15th of the same month. If the 15th falls on a Saturday, Sunday or a federal holiday, the securities will be issued on the next business day.

30-year bond auctions are usually announced along with 5-year and 10-year notes on the first Wednesday of February and August. They are generally auctioned during the second week of February and August and issued on the 15th of the same month. If the 15th falls on a Saturday, Sunday, or federal holiday, the securities are issued on the next business day.

The security bills, bonds and notes are transferable. One can buy or sell them in securities market and they are not in paper form but are electronic.

Treasury bills, bonds and notes can be purchased from the securities market or from the auctions. These dealings can be done directly or through intermediaries like security brokers or dealers.

### **2.1.2 Treasury Direct.**

This is the bureau of the public debts book entry system for the treasury bills, bonds and notes. Securities under treasury direct are marketable securities because it can be sold or bought at the secondary market at the prevailing market prices. This is the most convenient and cost effective way where there is not the interference of brokers, bank or other intermediaries. Under Treasury direct individual investors maintain accounts directly with the treasury. But under commercial book entry system the Federal reserve banks recognizes only the identity of those institutions having a direct

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account relationship with the federal bank. In commercial book entry system banks, brokerage firms, securities clearing organizations act as securities intermediaries for actual owners. It is possible to transfer bills, bonds and notes that are held in treasury direct to commercial book entry system and vice versa. Treasury securities however are not pledged as collateral securities. It is said that the treasury securities are safe because most of the governments offer guarantee on the interest and full payment being paid and they are mostly liquid so that they can be sold for cash.

Strips or zero coupon securities are those securities that do not make periodic interest payments. The commercial book entry system is the system operated by the Federal Reserve Bank in their capacity as fiscal agents of the treasury. Here the dealings are normally through brokers or financial institutions. Investors who maintain such securities may have purchased their securities from government securities brokers or financial institutions. These securities are entered in the book entry systems as book entry issues of the account for depository institutions. The depository institution maintains records identifying the owners of securities held in its account in the commercial book-entry system.

Savings bonds facility is available only to those who have registered with the concerned institutions. Interest from these bonds can be earned up to 30 years but can cash them only after 6 months. These are not transferable.

## **2.2 Valuation of Collateral**

In different jurisdictions collateralization is accepted in different ways. In some jurisdictions it is accepted that the secured party will have legal possession of the collateral subject to certain conditions that the collateral will be returned at a fixed price on a future date and it will be used as per the conditions. Here the secured party is on a safer side that he can receive back the collateral on default of the conditions. In jurisdictions where there is the transfer of title it is sometimes taxable. In *Nebraska Department of Revenue v. Loewen-*

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stein<sup>(24)</sup>, the U.S. Supreme Court ruled unanimously that states might tax interest income earned from repurchase agreements involving federal securities. The Court ruled that the state tax was not being levied on the interest of U.S. Government obligations, but on loans of cash. Several features of Repos lead to this conclusion. First, at the commencement of a Repo, the Trusts pay the Seller Borrower a fixed sum of money; at the Repo term's termination, the seller Borrower repays that sum with "interest". And this Repo interest bears no relation either to the coupon interest paid or the discount interest accrued on the federal securities during the term of the Repo.<sup>(25)</sup> Second, if the Seller Borrower defaults on its obligation to

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(24) *Nebraska Department of Revenue, Petitioner v. John Loewenstein* (a writ of certiorari to the U.S. Supreme Court) 93-823 Nebraska Supreme Court (1994).

The respondent a Nebraska resident owned shares in two mutual funds, the Trust for Short term U.S Government securities and the Trust for U.S Treasury Obligations (Trusts). The trust owned a portion of their income by participating in agreement" that involve debt securities issued by the United States Government and its agencies (federal securities). A typical repurchase transaction where in the first leg the Seller Borrower "transfers" specified federal securities to the Trusts on the records of the Federal Reserve System's commercial book entry system and simultaneously, the Trusts transfer a specified amount of cash to the seller borrower's bank account. And on the second leg of the transaction which takes place either on demand or on a date prefixed by the parties the Trust transfers back the securities back to the Seller Borrower on the Federal Reserve's records, and the Seller Borrower credits in the Trust's Bank account in an amount equal to the sum of the cash transfer plus "interest" at an agreed upon rate. This interest rate is agreed to bear no relation to the yield of the Federal securities - either when they were issued by the United States Government or later when they came into the hands of the Seller Borrower-but is based instead on the current market rate paid on investments with maturities equal to the term of the Repo not to the original or current maturities of the underlying securities. To the question whether the interest earned by the Trusts from the Repos is interest on "obligations of the United States Government" or interest on loans of cash from the Trusts to the Seller borrower it was concluded that the interest income earned by the Trusts is interest on loans from the Trust and that the federal securities are involved in the Repo transactions as collateral for these loans.

(25) An investor may earn interest income from a federal security in one or both of two ways. First, the investor may receive periodic payments from the United States Government at the interest rate stated on the face of the security. Such payments are traditionally known as "coupon interest". Second the investor may acquire the security at a discount from the amount for which it will ultimately be redeemed by the government at maturity. This discount is also considered interest for purposes of taxation. Although discount interest accrues during the term of the security, the investor does not receive it in cash until the security is redeemed or transferred to a third party.

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pay its debt, the Trusts may liquidate the federal securities. But like any lender who liquidates collateral, the Trusts may retain the proceeds of liquidation only upto the amount of the debt plus expenses; any excess must be paid to the Seller Borrower. Moreover, if the proceeds are insufficient to satisfy the debt, the Trusts may recover the deficiency from the seller borrower.

Third if the market value of the federal securities involved in the Repo falls below 102% of the amount of the Trusts originally paid to the Seller Borrower, the latter must immediately deliver cash or additional securities to the Trusts to restore the value of the securities held by the Trusts to 102% of the original payment amount. On the other hand, if the market value of the securities rises above 102% of this amount the Seller Borrower may require the Trusts to return some of the securities to the Seller (Borrower). These are actually provisions which are consistent with a lender borrower relationship in which a prudent lender desires to protect the value of its collateral, while a prudent borrower attempts to pledge as little collateral as possible. Fourth the seller borrower may, during the term of the Repo, “substitute” federal securities of equal market value for the federal securities initially involved in the transaction. <sup>(26)</sup>

In other jurisdictions the securing party retains the title but the secured party will have “perfected interest” in it. In the valuation of Repo collateral, even though the majority of the Repo transactions involve the exchange of government treasury and federal agency securities with real or perceived low credit risk facilities the arrangements themselves are not risk free. The Repos, especially long-term Repo involves both interest rate risk and credit risk which is to be taken into account while entering into a Repo contract.

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(26) *Nebraska Department of Revenue, Petitioner v. John Loewenstein* [93-823 Neb S.C (1994)].

The question whether Repo is characterized as a sale and subsequent repurchase was not an issue in this case so it was not discussed.

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### 3. Participants in the Repo Market

Repo attracts a wide range of market participants as a low- cost source of short term funding for borrowers and an asset with high credit quality regardless of the counter party for the suppliers of funds.<sup>(27)</sup> They are investors, dealers and brokers. Although corporations are an important target as new lenders in the tri-party Repo market, insurance companies, asset managers, smaller commercial banks and pension funds are also prospects.

#### 3.1 Institutional Investors

This includes an array of investment and other banks, non-financial corporations, pension funds, mutual funds and state and local government authorities and public bodies. Through Repos it is possible that the investors can earn a profit on treasury securities that is above the risk free rate without sacrificing their liquidity. Large investors and banks be inclined to become the usual counter parties of Repos Because of the capability of custom- tailor maturities and the facility to adjust the amount invested on a day-to-day basis it is well suited to adjust the unbalanced cash flow patterns experienced by big entities. At times, in addition to being a counter party to some transactions banks may serve as third party custodian of securities collateral in some other transactions as a service to the buyer and seller.<sup>(28)</sup> Local public authorities and schools tend to arrange Repo transactions with banks and other small institutions. In order to avoid being taxed many of the public bodies regularly invest in Repos collateralized by government securities rather than purchasing securities outright, and they record the ownership of these securities rather than the Repos on their books.

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(27) Mishkin, Frederic S. *The Economics of Money, Banking, and Financial Markets*. 4th ed. New York: Harper Collins College Publishers, 1995.

(28) "How Banks Reap the Benefits of Repo." *International Securities Lending*. Second quarter 1994.

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### 3.2 Dealers

The dealers usually have a propensity to be net borrowers in the Repo market, particularly in overnight transactions. But there are instances where dealers have been net lenders of Repo market as a result of shortage of securities that were obtained under Repo. Major dealers commonly use reverse repurchase agreements to establish or cover short positions and to obtain specific issues for delivery to the customers. This practice is similar to securities borrowing arrangements, whereby the dealer obtains securities in exchange for funds, other securities or a letter of credit. Reverse repurchase agreements are comparatively cheaper, and provides great flexibility to the use of collateral, as they can be used for fixed maturities while borrowing arrangements may be terminated in a day's notice at the option of the securities lender.

It is through the Repo transactions major dealers and money center banks finance the bulk of their holdings of Treasury and Agency securities. Most of these transactions are on a short term basis through direct contact with major customers like banks, public entities, pension funds, institutional funds etc. a dealer's financing desk contacts every morning the major customers to arrange Repo financing to replace maturing Repos and to meet the expected additions to the firm's securities inventory. The financing desk also arranges reverse Repos in order to cover known or planned short sales and to meet the specific customer requirements. Larger and experienced dealers generally make tentative assignments of collateral to newly arranged Repos by mid day. This is in anticipation of the actual receipt of incoming securities. This is based on past experience with customer constraints on acceptable collateral. Collateral assignments are subsequently adjusted to meet unanticipated cash trades and to accommodate specific customer needs. Dealers engaging in dealings of this type generally obtain funds overnight from non-financial corporate customers and in turn they lend these funds in the term market to financial institutions.

Capitalized dealers are able to profit through arbitrage in matched transactions through smaller dealers and non dealer customers because they obtained RP funds at favorable rates and if at the end of the day

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the dealer is still in need of funds it may borrow funds from a clearing bank through a box loan. This is a loan collateralized by any securities in the dealer's general account that have not been allocated for any other use. As the loans are expensive the dealers use them only as a last resort. If the dealer is met with unexpected money requirement late in the day the less expensive option available to the dealer is to borrow "position" loan from another bank. When the agreement is finalized the lending bank will wire the specific funds to the dealers clearing bank. And there at the bank the required amount of the owner's securities is segregated as collateral for the loan and the bank act as a custodian for the lender.

#### **4. Repo Arrangements.**

The most prevalent Repo arrangements are standard overnight and term RP arrangements in treasury and federally related agency securities. But market participants in order to meet the specific investment requirements modify the various contract provisions to suit their needs.<sup>(29)</sup>

##### **4.1 Selected Repo Arrangement**

Some Repo contracts are negotiated in such a way that substitution of the securities subject to the repurchase commitment is permitted. Dollar repurchase agreements ("dollar rolls") where the initial seller's obligation is to repurchase securities that are to a large extent similar, but not identical to the securities initially sold, are included in this classification. There are two main types of dollar rolls, "fixed coupon dollar roll" and "yield maintenance agreement". In "fixed coupon dollar

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(29) In U.S as it takes time to complete the accounting of the Repo transactions, Repos for the system are arranged for the account of the system of Federal Reserve Bank of New York than otherwise directly arranged for the systems account, which must otherwise be divided each business day among the twelve Federal Reserve banks. In Germany according to the particular accounting rules applicable to banks and other financial institutions set out in the German Commercial Code(which is enacted in 1990, shares sold on a genuine Repo has to be accounted for by the seller). See, Thomas Dammar, "Treatment of Sale and Repurchase agreements", Frankfurt, Clifford Chance Punder, 2000.

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roll” the seller agrees to buy back the securities that have the same coupon rate as those sold in the first half of the transaction. In a “yield maintenance agreement” which is a slightly different and less common variant the seller agrees to repurchase securities that offers roughly the same overall market return as the original securities. In each case, the maturity of the repurchased security must be within an agreed upon range but need to be approximately same as that of the original securities. They are usually arranged using federally related mortgage- backed- securities.

Dollar rolls are low cost financing vehicles for borrowers, usually savings and loan associations. Simultaneously, dollar rolls provide the lenders of funds normally dealers of securities with specific access to mortgage backed securities, for use in covering short sales or to satisfy other commitments. The difference between dollar rolls and Repos is that in dollar rolls collateral can be changed.

In mortgage-backed securities interest is paid per month unlike other coupon bearing securities where interest is paid annually and there may be unscheduled principal payments as a result of prepayments. Dollar rolls are structured vice-versa so that the lender retains any underlying principal and interest earned on any mortgage-backed- securities during the “roll period”. Roll period ranges from 1 to 11 month whereas the contract is written for 1 or 3 months. Repos can also be arranged to provide flexible terms to maturity. For example, in a “reverse to maturity”, the initial seller’s repurchase commitment is effectively eliminated altogether as the maturity of the agreement covers the remaining term to the maturity of the underlying securities. Reverses to maturity involve coupon-bearing securities trading at a discount from their book value, the price at which the “seller” initially purchased them. An outright sale in these circumstances will lead to a capital loss. The seller can be save from such a situation by a “reverse to maturity”, which enables the seller to give up the overall long position in the securities and acquire funds in higher yielding assets, without having to sell the underwater securities outright. The total dollar amount of seller’s

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repurchase commitment in the transaction is largely based on how the final principal payment on the underlying securities is handled. Normally the purchaser retains the final payment of the principal amount and interest, this is received directly from the issuer of the securities. And then it will be netted against the seller's repurchase obligation.

#### **4.2 Flexible Repos**

In flexible Repos there is a flexible term to maturity. It is a term arrangement arranged between the dealer and the major customer like municipalities, corporations or such authorities. Here the customer buys the securities and sells some of it back before the maturity period. The funds invested in flexible Repos are usually meant to be used in financing projects or similar projects anticipated to be completed in phases. When funds are needed for a given phase of project customer sells the required amount of securities back to the dealer. Under some flexible Repos there is a pre-arranged draw down schedule, even though it is not obligatory on the part of the investors to adhere strict compliance to it. Usually there is considerable uncertainty as to the timing of withdrawals. As compensation for accepting the added interest rate risk associated with the flexible Repos, the dealer pays a lower rate than comparable term agreement. Flexible Repos are usually collateralized by government-issued or government backed securities, but dealers are given extensive flexibility as to substitute collateral.

#### **4.3 Index Repos**

Index Repos are term arrangements with an underlying interest rate that resets periodically as a function of the Federal Funds rate. A good number of index Repos bear a resemblance to flexible Repos in the implication that they are term arrangements that enable the investor to sell the securities back to the dealer or buy additional securities as needed. Index Repos are used frequently to hedge or finance securities such as floating notes and floating rate trenches of collateralized

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mortgage obligations that have rates indexed to the Federal funds rate.<sup>(30)</sup>

## **5. A Brief Portrayal on Legal Status of Repos.**

Generally, Repos are hybrid transactions where there is a fusion of the features of both the secured loan and outright purchase and sale transactions.<sup>(31)</sup> Repos and reverse Repos are agreements not instruments and transactions are generally subject to the terms of contract that stipulate the rights and obligations of the parties involved. From the economic and tax perspective, a Repo will be treated as a loan and the shares which are transferred will be treated as collateral for such loan, any dividend income earned by the seller of the shares according to the aforementioned principle may be balanced by an according interest expense payable to the purchaser.<sup>(32)</sup> But from the legal perspective, the characteristics of a sale contract are seen to be more evident than a secured loan. Where the sale form of receivables financing is used the lawyers tend to draft the documents in the form of a sale purchase but economists often use the terms loan, advance, or interest.

The use of margin or haircuts in valuing securities in Repo transactions, the right of Repo borrowers to substitute collaterals in term agreements and the use of market to market provisions is the characteristic feature of secure loans and these are rarely found in sale purchase transactions.

Likewise, the Repo buyer's right to trade with the securities during the term of agreement where there is the transfer of ownership is the feature of sale purchase agreements which is not found in collateralized lending agreements. The person who purchases the security holds that

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(30) For example a company that has issued a floating rate debt to finance pending renovation project can invest the proceeds in a Repo arrangement attached to the same underlying index. The fluctuations in the interest rate during the project period will in turn bring about offsetting changes in the firm's interest rate expense and its interest rate earnings.

(31) Roy Goode, *Commercial Law 2nd Edition* (Penguin books ltd., London)1985.

(32) Thomas Dammar, "Treatment of Sale and Repurchase agreements", Frankfurt, (2000) Clifford Chance Pander.

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security as a form of collateral and makes funds available to the seller. The term collateral is sometimes called the margin. The interest for the loan is the difference between the purchase price and the repurchase price paid on the security. These transactions are also being called security lending.

When there is a temporary need to drain reserves, matched sale-purchase transactions (MSPs) with dealers are executed. These transactions involve a contract for immediate sale of Treasury bills too, and a linked matching contract for subsequent purchase from each participating dealer. Here the transaction adopts the form of a contract of sale in order to escape the legislations which seem to be burden an agreement which in substance a loan on security and can readily be disguised as a purchase. Here what we have to consider is the legal nature of Repos. There are two distinct routes by which a transaction relied on as a sale may be struck down as a security for a loan.<sup>(33)</sup> These have conveniently been described as the external and internal routes.<sup>(34)</sup> The external route is to show that the document does not record the real agreement between the parties and that the document is designed to conceal the true nature of the documents. Most of the cases in which the agreement was held as a security rather than a sale have been decided on this basis. But even where the document is a true record of the agreement, the court may conclude from an examination of its terms that its legal character is that of a security rather than a sale. This is the internal route.<sup>(35)</sup>

The distinction between Repo as a contract of sale and a secured sale is in practice much lesser than the legal difference would suggest.

The uncertainty of the legal status of the Repos was brought to limelight by the Lombard Wall case. The bankruptcy of Lombard Wall, Inc in August, 1982 due to the firm's inability to return funds it had obtained in overvalued long term Repo arrangement generated considerable uncertainties as to the legal status of Repos and the

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(33) *Welsh Development Agency v. Export Finance Company Ltd.* [1992] BCC 270. As per Slaughter LJ at p.301.

(34) *Ibid.*

(35) See for details the judgment of Slaughter and Dillon LJJ *Welsh Development Agency v. Export Finance Company Ltd.*[1992] BCC 270, where a detailed discussion on the two routes is given.

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contractual rights of the counter parties, when one of them files under the Federal Bankruptcy Rules.<sup>(36)</sup> Prior to this case the participants of the Repo market operated under the supposition that the purchaser of the Repo securities was entitled to liquidate them if the seller was unable to fulfill the terms of agreement at settlement. The legality of this supposition was tested in the Lombard Wall case. The Federal Bankruptcy Court, Mr. Edward J. Ryan ordered to freeze all the securities sold by the bank and ruled on September 1982, that the repurchase agreement that Lombard Wall has negotiated with the banks were secured loans and is subject to the automatic stay provisions of the bankruptcy Code, which block any effort of a creditor to make collections or to enforce a lien against the property of a bankrupt estate. Although this particular rule had its application only on one bank it was taken up as a precedent.

However, the primary government securities dealers and the Reserve Bank of New York persuaded the Congress to amend certain provisions of the bankruptcy code in order to exempt certain repurchase agreements from the stay provisions of the Code when it enacted the Bankruptcy Amendment Act of 1984 in June of that year.<sup>(37)</sup> Coverage is limited to overnight Repos and term agreements up to a year in Treasury and agency securities and selected money market instruments. The dispute as to whether Repo agreement is a secured loan arrangement or a sale contract was not settled by the legislation but it enabled the lenders to liquidate any Repo securities under their possession under either interpretation.

Nevertheless, the legislators did not make it clear what will be the situation if the collateral is not in possession of the Repo counter parties at the time of the bankruptcy filing. This question was raised with the failure of a few unregistered non primary government securities dealers. Prominent amongst these securities dealers were E.S.M Government

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(36) Stephen A. Lumpkin "Repurchase and reverse repurchase agreements" Article published by Federal Reserve Bank of Richmond, Virginia 1998

(37) Title 11 of the U.S. Bankruptcy Code.

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Securities, Inc, Bevill, Brestler and Schulman Asset Management Corporation. The investors dealing with these firms failed to take adequate steps to protect against custodial risks which resulted in considerable loss when the firms filed for bankruptcy in 1985. In some instances the investors sold “inexistent” securities and in some other instances the same securities were “sold” under Repo to a number of investors. The question of whether the Repo counter parties had a priority legal interest over the securities under the control of a bankruptcy trustee or whether they are general unsecured creditors of the bankrupt was at issue in the bankruptcy proceedings. This dilemma was to a large extent related due to the fact that the question whether the transaction is a sale contract or a secured loan remained unsettled.

The bankruptcy court in October 1986 in reviewing the case, Bevill, Brestler and Schulman held that as the general custom in the market is to treat the Repo transactions as consummated sales and contract to repurchase, the same characterization should apply in the case of default and subsequent bankruptcy of one party. Hence, the Repo counter parties to Bevill, Brestler and Schulman were judged to be qualified as customers under Securities Investor Protection Act and thus were entitled to preferred status in distribution of the firm’s assets and up to \$500,000 to SIPC Insurance. Another important ruling which the court made under this Act includes the finding that the broker dealer has “effective possessions” of securities in the possession of the clearing banks that permits it to make deliveries to its customers, but that possession is limited only to those securities held for the broker dealer in a segregation account; the clearing bank retains a contractual lien in those securities remaining in the broker dealer’s general clearing account.

In *Suffolk Business Center, Inc., v. Applied Digital Data systems, Inc.*,<sup>(38)</sup> the issue raised was that whether the parties intended that a

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(38) 78 N.Y. 2d 383, 581 N.E. 2d 1320, 576 N.Y.S. 2d 65 (1991).

In this case the plaintiff, Suffolk Business Center (“SBC”), was formed to acquire and develop, as an industrial park, a 302- acre tract of land in Suffolk country. In 1978, SBC contracted to sell an approximately 8.17 acre parcel within the proposed industrial park to defendant, Applied Digital Data Systems, Inc. (“Applied”) for \$408,795. Applied owned an Adjoining 7 =

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construction and repurchase clause should constitute a covenant running with the land, enforceable by specific performance, or a future interest on a condition subsequent, enforceable only under Real Property and Procedure Law<sup>(39)</sup> SBC sued for specific performance. Supreme Court, Suffolk County, granted Applied's cross motion and dismissed the complaint. The appellate Division affirmed, agreeing with Supreme Court that SBC had conveyed a fee to Applied subject to a future interest on a condition subsequent, enforceable only under RPAL. It was held that whether the construction/repurchase provision in this deed qualifies as a covenant or a condition subsequent is dependent on the parties intent. Intent is drawn from the governing instruments itself and from the particular language selected to reflect the goals and understandings of the parties. The type of estate created is determined based on point of reference to the time the parties make their agreement and consummate their transaction.

With respect to the cross-boarder Repos there is some uncertainty as the status of the collateral in cross boarder Repos is not clear. In order to avoid this uncertainty there should be a legal agreement between the participants. A master repurchase agreement will serve the purpose.

The U.S. Public Securities Association has written a contract under the New York law (PSA contract) and there is also the International Securities Marketing Association contract under the U.K law (the ISMA global Master's Repurchase contract). The potential investors are given the liberty to choose among these. Similarly, custody costs can be high in many emerging markets and since physical delivery of bearer bonds be

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= acre parcel, improved with a building and used to its maximum capacity under the local zoning code. Applied planned to use the combined parcels to expand its facilities under a project denominated the "Phase 1 Improvements".

The contract of sale contained a provision that failure to start up construction on the phase 1 improvements within one year and continue with due diligence until phase 1 was completed after acquiring the title will entitle SBC to repurchase the subject parcel. Even though the construction work was commenced due to unfavorable economic condition Applied could not do it's work as agreed. Based on that failure SBC exerted its option to repurchase the subject parcel, as partially improved by Applied.

(39) (RPAPL) S. 1953.

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included it is more convenient for those involved in the Repo market to take delivery on a hold-in custody basis. Moreover, many of the emerging markets lack the required infra structure to transact Repo. The PSA & ISMA contract is designed to suit the needs of the western investors and the investors of the emerging markets may not gain much from these.

Another problem is that there will be the chance of credit exposure in Repo transactions if a secure and efficient settlement system is not being incorporated. This problem can be solved to a certain extent by using the DVP (Delivery versus Payment System).

A high standard of conduct and professionalism is mandatory for the successful functioning of the Repo market. Before the release of the stock or money it should be ensured that the participants have authorized systems and control measures. Only eligible candidates shall be allowed to deal in the Repo market.

Transactions in the Repo market are highly confidential and a code of conduct needs to be implemented in all the countries where Repo trade is being carried out. Not only the principal and the intermediaries of the Repo but all those who deal with Repo should come under this code. All the individuals should comply with the rules and regulation governing the market and keep up-to-date with the changes that may happen from time to time. The dealing hours have to be uniform and should be as stipulated by the regulating authority unless there is satisfactory reasons for concluding deals after prescribed dealing hours.

### **5.1 Kuwaiti Legal System and Repo.**

The background of the Kuwaiti law depends on the Latin system not on an Anglo- American basis which depends on the previous judicial examples. Therefore, the legal text in the Kuwaiti law is of importance when defining the legal nature of repurchase contracts. The judicial antecedents are explanatory source of the law texts. They are not obligatory to resort to when applying law in the Kuwaiti law system.

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It is important to know how to discriminate between the transactions subject to the commercial law and those subject to the civil law. In the commercial transactions, the interest sum of any type maybe included. But in the civil transactions, subject to the civil law, the interest couldn't be used in such a way as they are prohibited by law.

Regarding Article 5 of the Kuwaiti Commercial Law and articles 8,9,12 of the said law, it is possible to define the legal nature of the repurchase contract in the Kuwaiti law.<sup>(40)</sup> The first paragraph of the said article states that all banks transactions are commercial transactions by the provisions of law. Paragraph 5 and 5 of the same article refer to the same matter. It considers any action relating to bills, bonds, cheques or selling of company's shares or bonds as commercial transactions.

As for article 8 of the commercial law, it refers to actions related to commercial transactions or actions facilitating them and all actions done by a trader whether for the need of his trade as commercial actions.<sup>(41)</sup> Article 9 of the commercial law admits that the generally accepted base in a trader's contracts as well as his commitments is its being commercial unless it is proved that these contracts and commitments are civil transactions.<sup>(42)</sup> Article 12 of the same law suggests that the application of commercial law on any commercial contract even if the other party of

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(40) Article 5 states that " The following activities shall be considered to be Commercial Activities disregard of the status or the intention of the person carrying out such activities:

1- Banking transactions.

2- ...

3- ...

4- ...

5- Promissory notes, bills of exchange and cheques.

6- The Incorporation of commercial companies and the sale and purchase of their shares and bonds.

7- ..."

(41) Article 8 states that " The business activities in connection with or facilitating the said business activities and all other activities carried out by a merchant for the needs of this trade, shall also considered commercial activities".

(42) Article 9 states that "In principal the contracts and obligations of a merchant are of a commercial nature, unless it is proved that such contracts and obligations are relating to civil transaction".

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this contract doesn't consider the contract as a commercial one against him.<sup>(43)</sup>

When viewing the repurchase contract through the previously mentioned commercial law context, we find that this contract in one of the unnamed commercial contracts. We shall therefore assume the application of the rules of the commercial law. However, the Kuwaiti commercial law does not contain any particular rules applicable to repurchase contract. So, in implementing the second article of the law decree No 67, 1980 issuing the civil law, we can resort to the civil law rules in the repurchase contracts applicable fields considering it a general jurisprudence in the absence of special text organizing such type of contract.<sup>(44)</sup>

When viewing the Kuwaiti civil law rules, we find that the nearest text applicable to repurchase contracts is article 508 of the civil law concerning "Refulfilment Sale" which states that "if the seller keeps, when selling, the right of redemption to sold article in return for paying back the price and the expenses, the contract is considered a loan guaranteed by a mortgage".

We notice that this text is not mentioned in the Egyptian civil law because both laws prohibit interest in civil transactions. The Egyptian legislator considers this contract a loan contract involving an interest action prohibited by Islam Sharia. But the Kuwaiti legislator considers this contract as a loan contract guaranteed by mortgage and it is therefore allowed.

Whatever the case maybe, we may consider the repurchase contract is a type of commercial contract that could have interest as a condition. Due to the difficulty of finding related clear and explicit rules in the Kuwaiti commercial law, the parties of the repurchase contract may

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(43) Article states that "If the contract is of a commercial nature with regard to only one of the contracting parties, then the provisions of the Commercial Law shall be applicable to the other contracting party obligations emerging under this contract unless a provision is providing otherwise".

(44) The law is published in "Kuwait Al youm" Official paper No. 1335 issued on 5, January 1981.

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organize this type of contract in a way beneficial to both parties upon their own terms.

## **5.2 Repurchase contract under Islamic Sharia' Scope**

The Islamic Sharia didn't mention the repurchase contract. The current Islamic Sharia' jurist didn't mention such contract directly and definitely. But viewing most "fatwas" of Islamic jurist and viewing Islamic books dealing with financial transactions in Islam especially some kinds of prohibited contracts in Islam like sale by sample sale by papers and interest loan, repurchase contract can be based as follows:

First: The general rule of Islamic Sharia' is that the loan contract should be of charitable nature not commercial one. When viewing repurchase contract as loan contract with interest or an increase but loans are basically for charity not for commerce,<sup>(45)</sup> so the repurchase contract is forbidden in Islamic Sharia'. This judgment can be explained as follows:

- the repurchase agreement is done in two main stages. They are:

First stage: The sale or purchase stage. Primarily, this stage is allowed. The evidence for this is the idea that commercial transactions are primarily allowed, unless there is a text in the Qura'n or the Sunna saying something different. But when viewing that the repurchase treaty issued for selling and buying treasury bonds which makes the first stage a sort of an interest loan contract.

As we have said the essence of a loan contract in Islam is free from interest, that is to say charitable, so Islam Sharia prohibits these stages as previously mentioned. But if the subject of sale and purchase in this stage is shares, the primary thing is that shares maybe sold or purchased on condition that such shares go back to companies that

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(45) Ali Alsaloos, Rules of Banks Deposits and Investment Certificates, Culture Publishing House, Doha, first edition 1990, page 19. see also, Ali Alsaloos, Bravest to give Fatwa, Aleitizam Publishing House, Cairo, 1990, page 19. Dr. Abdel aziz Al khayat, Shares and Bonds in Islam View, Daralsalam, Cairo 1989, page 55. Dr. Abdel aziz Al Khayat, Companies in Islamic Sharia' Endowments and Islamic Affairs Circulars, Amman, first edition, 1971, page 227.

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comply with the Sharia law otherwise this stage will not be allowed legally.<sup>(46)</sup>

Second stage: It is the stage in which agreement is reached to resell or buy and in this stage the Islam Sharia' stresses the fact that the buyer and seller in the first contract should be different from the buyer and seller in the second contracting stage. It is the stage of reselling or repurchase. This kind of sale is called selling by sample and it is forbidden in the Islamic sharia<sup>(47)</sup>.

The jurist of Islamic Sharia' tried to find a legal method that may substitute the selling by sample, legally forbidden, through a kind of sales instead of this contract called "sale of paper or papered contract". The jurist defined the "papered contract as" doing away with a loan to selling certain hold" to the borrower by installments at a higher price and the buyer sells it in the market in cash so as to get his cash needs"<sup>(48)</sup>.

We think that nothing prohibits the use of the papered contract as a means to get money for credit and as a substitute of the repurchase contract previously mentioned and explained.

## **6. Advantages, Supplementary Facilities and the Risk Involved in the Repo Transaction.**

Varieties of facilities are offered by repos both in the financial markets and in the debt market.

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(46) See the contemporary legislators ideas on this side especially; Mahmoud Shaltout, Fatwas, Daralshurook, tenth edition, 1980, page 355. Mohamad Youssef Mosa, Islam and our Present Problems, the Technical Bureau, 1958, page 58. Ali Al khafeef, Companies, Arab studies Institute, Cairo, 1962 pages 96,97. Mohammad Abuzahra, Social Solidarity in Islam, A research in the Islamic Researches Complex, Second volume, p.184. Dr. Mohammad Othman, Current Financial Transactions in Islamic Fiqh, Daralnafais, Jordan, first edition, 1996 pages 167-168.

(47) Selling by sample is defined as "selling an article to some one for a certain period of time, then buying it at a price less than its first one. See Ashraf Abdel maksoud, Fiqh and Fatwas of Sales. Lights of Ancestors Library, Riyadh, second edition, 1996, page 302. See Mohammad Qalaji, Current Financial transactions in the light of Fiqh and Sharia, Daralnafais, first edition, 1999 page 82. Dr. Ali Alsalous, Islamic Economy and Current Fiqh Problems, p.555-562.

(48) Ashraf Ben Abdel maksoud: Sales fiqh & fatwas page 301. Mohammad Fawas kalaji: Current financial transactions in light of fiqh & sharia' Daralnafa is, first edition 1999 page 84.

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## 6.1 Advantages of Repo Transaction.

A concise Report on the advantages of Repo transaction is given below.

- 1 - An active Repo market will improve the turnovers in the money market and so the liquidity and the depth of the market will be improved.
- 2 - The central banks can use Repos in their open market operations thereby adjusting the temporary market swings. They can also reduce volatility in short term especially in call money rates. Bank reserves and call money can be used as the operating instruments in adjusting the monetary conditions.

Repos can be used to add temporary reserves in banks and to drain the reserves 'matched sale purchase agreements' are being used. These have a short term self reversing effect on the bank reserves. In United States among the tools used by the Federal Reserve System to achieve its monetary objectives is the temporary purchase and sale of United States Government securities and federal agency obligations in the open market.

Repos and matched sale-purchase transactions are particularly useful in offsetting temporary swings in the level of bank reserves caused by such volatile factors as float currency held by the public and Treasury deposits at Federal Reserve Banks.<sup>(49)</sup>

Repurchase agreements are made at the initiative of the trading desk. Under the usual type of arrangements, the dealer may prepay, thus

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(49) The New York trading desk awards the agreements on a competitive basis. Each dealer is requested to present the rates the dealer is willing to pay for the agreements. The desk selects the best bids presented, ending when the total accepted is approximately equal to the volume of reserves to be added to the banking system. The bids submitted often reflect dealer transactions with their customers. The New York Fed makes payment for the securities by directly crediting the reserve account of a commercial bank in which the dealer firm has its account. As a result, new bank reserves are created by the Federal Reserve. When the transaction is reversed as agreed and the dealer repurchases the securities, funds are withdrawn from bank accounts to pay the Federal Reserve, thus reducing reserves in the banking system. See for details Rosemary Brady (Sec of National Credit Union), Article published by the National Credit Union Adm: on Nov: 14 1985.Federal Reserve Bank of New York, last modified in 04/12/2001

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completing the transactions prior to the original maturity; also, the contract permits the Fed to require early repayment, although this option has not been exercised in recent years. At times, the desk also arranges fixed term or non terminable Repos.

In August 1982, as part of the effort to strengthen market practices, the desk announced it would take into account accrued coupon interest when valuing securities used in repurchase agreements, and urged other market participants to do the same. Under this system the New York Fed still pays a dealer slightly less than the market value of the security the dealer offers in a repurchase agreement, but adds whatever interest has accrued on the security to the proceeds it pays the dealer.<sup>(50)</sup>

Matched sale-purchase transactions have the opposite effect on bank reserves. They withdraw reserves initially and later return them to the banking system. These transactions are sometimes referred to by market participants as "reverse repurchase agreements" or "reverse Repos." In a matched transaction, the desk executes two transactions simultaneously, for different delivery dates. These contracts cannot be terminated early.

When a matched sale-purchase transaction is executed, the trading desk sells Treasury bills from the System portfolio to dealers, simultaneously purchasing the same obligations for return within a short period generally 1 to 7 days. The desk also arranges the transactions competitively, starting with the best terms proposed.

In June 1982, as part of a general effort to strengthen practices in the government securities market, the desk announced it was returning to a pricing method used from 1966 when matched sale-purchase agreements began. Under the re-instituted method, the desk agrees to sell bills at a specified rate, which is the current market rate for the maturity. The dealer provides the rate at which the dealer will re-sell the securities to the Federal Reserve, which includes the dealer's profit.

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(50) If, for example, the New York Fed buys a \$10,000 note which pays an annual interest rate of 8 percent – or \$400 semiannually – the Reserve Bank includes whatever portion of the \$400 has accrued up to the Fed's transaction date with the dealer.

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The change in pricing occurred because dealers tend to set rates for the purchase at about their financing rate the RP or federal funds rate leading to the central banks selling the bills at a rate higher than the market-bill rate.

Dealers purchase the obligations for cash on the day of the agreement, which immediately withdraws the reserves from the banking system. The Federal Reserve doesn't pay for its repurchase of the issue until the agreed upon delivery date. When payment is made, reserves are returned to the banking system.

Market participants frequently use repurchase agreements and matched sale-purchase transactions to acquire funds or put funds to use for short periods. However, these transactions not involving the central bank do not affect total reserves in the banking system.

As a tool for funding the transactions Repos will increase the volumes in debt market. So that the dealers will be in a position to deal in higher volumes. Repos thereby act as an efficient and inexpensive tool in improving liquidity in the secondary market for underlying instruments. The debt market is boosted up by the Repos as they help traders to take positions and to go short or long on securities. Taking advantage of the flexibility of Repos one can acquire securities on a bullish market and can dispose off in a bearish market thus the cash flows can be managed.

For institutions and corporate entities a source for in-expensive finance and investment opportunities of borrowed money at market rates are enabled by the Repo transactions thus providing a good spread.

Through a tripartite Repos the financial institutions are in a better position to intermediate between the lender and the borrower.

A large number of Repos of varying tenors will introduce a new term interest rate structure especially in inter bank markets. If there is no term money transaction the growth of debt market and the development of hedging instruments will be curtailed.

Function of Repurchase agreements in Employees Stock Ownership plans (ESOP)

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There are many advantages if a company adopts an Employee Stock Ownership Plan.<sup>(51)</sup> An ESOP creates obligations to repurchase shares of the companies whose stock is not publicly traded when employees are entitled to receive distributions from the plan. But without appropriate planning, these repurchase obligations can strain corporate resources, diminish competitive position and can affect shareholder value. There are several ways of funding repurchase agreements and this will depend upon the unique characteristics of each company.

Each and every employee represents a future repurchase obligation for a privately owned ESOP company. The company must be ready to repurchase the shares on the death, termination or in exercise of diversification of rights.

## **6.2 Supplementary Facilities Available in Repo Dealings.**

Apart from the direct trading other facilities are also available which includes the following.

### **6.2.1 Repo Blind Brokering**

Here the brokered Repos are accepted on an anonymous basis. GSCC accepted these type of Repos in 1996. Brokers who are eligible for Repo netting services (who satisfies certain established financial and operational requirements under the GSCC can execute Repos. Dealers enter into transactions through the brokers and all the parties to the transaction submit trade details to the GSCC for comparison, netting, guarantying and settlement.

The advantages of this kind of trading is that

- Enhanced risk protection.
- More efficient settlement.
- Ease of transition to fully automated services.
- Anonymous counter parties.

All Repos entering the netting and settlement system must first be compared with the comparison system. In an electronic comparison

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(51) Judy Kornfeld, "An introduction to Esop repurchase agreements" Article published in [esopecomics.com](http://esopecomics.com)

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system all trade details which are unique to Repos like the start date, Repo rate etc can be submitted to the system through a CPU to CPU links or by using terminals installed at the participant's sites. The submitted information provides the transaction details each side agreed to at the time of entering into the trade. Then the system analyses the information to effect a match as in the case of a buy/sell transaction.

### **6.2.2 Collateral Substitution**

This is a new facility implemented by GSCC<sup>(52)</sup> in October 1996. Using the on-line function for collateral substitution this facility enables the participants to submit details regarding Repo rights of substitution on their comparison input and enable their participants to submit their notification of their 'intent to substitute'.

- Upon submission of Repo input to GSCC participants include the following information about Repo rights of substitution.
- number of times collateral may be substituted over the life of the Repo.
- The general collateral the CUSIP that identifies collateral eligible for substitution (as defined by the trading parties).
- Whether Repo is a par fill or money fill Repo.
- The number of times within a specified time period the substitution may occur.
- The percentage by which the principal value of the replacement Repo may differ from the principal value of the original Repo.

The information given by the Repo/reverse participant is matched against information submitted by the contra-party (i.e., another dealer or broker) and based on the details of the matched and unmatched information.

Collateral substitution is enunciated by either the broker or the dealer depending on how the Repo was initially executed. In the Repo blind brokerage as the dealer would not know its counter party it would

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(52) The New York Government Securities Clearing Corporation. GSCC is registered with the Securities and Exchange Commission as a clearing agency under S.17A of the U.S Investment Company Act of 1934.

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be arranged through the broker and in the case of dealer to dealer Repos the Repo dealer may contact the reverse dealer directly.

Then, the dealer or broker through an 'on line command' in the GSCC terminal send an 'intent to substitute' notification to the GSCC. If all parties are in agreement the reverse dealer delivers the 'old collateral' to the GSCC and the GSCC delivers the same quantity of "old" collateral to the Repo dealers. These deliveries are done versus the "old" collateral principal amount.

And vice versa the Repo dealer delivers the replacement collateral to the GSCC and GSCC delivers the same quantity of the replacement collateral to the reverse dealer.

For par fill substitutions these deliveries will be done versus the replacement, or "new" collateral principal amount but in money fill substitutions the principal amount does not change so both the deliveries are done at the same amount.

### **6.2.3 Repo-to- Maturity Processing**

It is in Nov 1996 GSCC launched the facility called Repo-to-maturity processing. This service enables the participants to submit the Repos to the GSCC where the Repo close date (or the settlement date for the close leg of Repo) is equal to the maturity date of the underlying security.

Data submitted on Repo-to-maturity transaction are compared, and regular comparison output is generated. On the Repo close date, which is also the maturity date of the Repo's underlying security, the reverse participants receives the redemption value of the securities and the last coupon payment from the treasury (if any). The reverse participant does not, therefore, have any securities to return to the Repo participant versus the final settlement amount on the Repo close date.

Instead of returning the securities the reverse participant return the redemption value of the securities and the final coupon payment (if any) which the GSCC nets against the contract value for the Repo close leg. The net difference moves to the appropriate Repo or reverse participant as part of the participant's daily funds-only settlement (based on whether

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the redemption value is less than or greater than the Repo close leg contact value.

Repos that mature prior to the Repo close date are currently ineligible for the GSCC services, and that the maximum term of a Repo processed through GSCC may not exceed more than 360 days. Providing this Repo-to maturity functionality increases the number and variety of Repos eligible for comparison, netting and settlement services, resulting in greater process efficiencies and reduced risk.

### **6.3 Risk Involved in the Repo Dealings.**

Even though Repos are collateralized transactions there is risk associated with collaterals like issuer risks and counter party risks and like any other financial markets Repo market is also subject to credit risk, liquidity risk and operational risk. However what distinguishes credit risks in Repo market from that of other un-collateralized market is that the credit risk associated with the Repo market is due the volatility of the market. An assessment of the risks faced by the Repo participants will be helpful to evaluate the requirements of a sound Repo market.<sup>(53)</sup> If the buyer is to rely on his ability to sell a security in the open market, he must exercise effective control over the securities collateralizing the transaction.

As a rule the securities used as collateral is valued at the current market price, plus accrued interest calculated to the maturity date of the agreement when coupon bearing issues are used, less a margin of “over collateralization” or “haircut” for term arrangements.

Taking margin and marking to market the initial Repo price will be less than the market value of the underlying securities which reduces the lender’s exposure to market risks. Government securities dealers often take such a haircut on reverses arranged with non-dealer customer to cover their exposure on the funds transferred. But the size of the hair cut should be as much as to guard against the potential loss from adverse

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(53) A Report from BIS (Bank for International Settlements), “Implications of Repo markets for Central Banks”, CGFS Publication No. 10 March 1999.

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price movements during the Repo term. Greater the price volatility of the underlying securities the haircuts tend to be larger, with respect to a change in the given interest rate. Hence haircuts tends to increase as the term to maturity of Repo securities lengthens and haircuts for discount bonds typically exceed those of premium bonds. Haircuts also tend to increase with credit risk so those taken on private money market instruments typically exceed those of comparable maturity treasury securities.

In counter party risks the issuer should be able to liquidate the securities received as collateral offsetting any loss. Against this the seller/lender will hold the securities or cash as protection against the non return of the lend securities. In both the cases it is to be ensured that the realizable equals to or exceeds the Repo coverage. There is also concentration risks were illiquid issues are used as collaterals in transactions. Inadequate credit risk management and the failure to exercise effective control over securities collateralizing the transaction are the factors causing heavy losses in the repurchase agreement. In long term contracts there is interest risk as well as credit risk which is to be resolved at the time of entering into a Repo contract. Moreover in a repurchase agreement in order to avoid confusion among the market participants both repurchase and 'matched Sale purchase agreements' are used interchangeably this also creates problem.

In situations where there is the non delivery of the securities the investors can protect their claim towards Repo security by using a safe keeping arrangement through a clearing bank/custodian acting solely on their behalf or jointly as their agent for both Repo counter parties. Tri-party arrangement is the most popular of these transactions where the custodian is also involved in the transactions as a participant along with other parties. In these transactions the custodian or the clearing bank ensures that the transaction are done in the proper way i.e., the exchange of collateral and funds occur simultaneously and there is appropriate operational safe guards to protect the investor's interests in the

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underlying collateral during the term of collateral. Here when an agreement is entered into the clearing bank protects the interests of the investor in the collateral by making an entry in the internal records making provisions for transferring securities from the dealer's general account to a segregated account. On maturity date the clearing bank returns the securities to the dealer's general account and wires the loan repayment to the lender. In tri-party Repos the interest earned by the lender will be less when compared to non segregated Repos without collateral delivery. The general principle is that when the investor has more control over the securities the return will be less.

Due to Globalization of the agreement there will also arise problems as to the jurisdiction of the courts to entertain a case. Only if this matter is solved legal protection can be granted to contractual rights of the parties.

During the 1982 period it was a common practice in the Repo market to ignore the value of accrued interest in pricing Repos using coupon bearing securities. It is this practice which led to the failure of Drysdale government securities. And this enabled Drysdale to acquire a substantial amount of "undervalued securities" despite its limited capital resource. Drysdale in turn used the securities which it had reversed to make short sales to third party for an amount that included the accrued interest. Drysdale was able to raise working capital and to make interest payments to its other counter parties using the surplus cash generated. This approach worked out successfully till May 17, 1982. But when the cumulative losses on Drysdale interest rate bets caused it unable to pay the interest on the securities it had borrowed the company suffered a severe loss.

The above mentioned incident effectively illustrates the risk to Repo borrowers of not including accrued interest in the initial price of the Repo security. Taking this into account by the end of that year it was made a standard practice to give a full accrual pricing including the accrued interest rate in full in the initial purchase and resale prices.

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In U.S the bankruptcy of the Lombard-Wall, Inc. in August 1982, due to firm's inability to return funds it had obtained in overvalued long-term Repos, generated considerable uncertainty about the legal status of Repos and the contractual rights of the counter parties when one of them files for protection under federal bankruptcy laws and this ruling was later viewed as a precedent.<sup>(54)</sup>

And in E.S.M. Government Securities, Inc. and Bevill, Bresler, and Schulman Asset Management Corp another question which was raised in 1985 was regarding the right of the collateral by the counter parties who are not in possession of the repo collateral at the time of bankruptcy filing. In this case the Bankruptcy court adopted a view that as followed by the local custom the repurchase agreement should be considered as a sale contract and so that the general provisions applicable for a sale contract in bankruptcy cases will be made applicable to repurchase agreements as well.<sup>(55)</sup>

## **7. Development of Repo around the World**

Repurchase Agreement were used first in U.S by the Federal Reserve in 1918 to help money-market dealers finance their positions in the banker's acceptances. By 1923, the Fed had begun to offer Repos to US government securities dealers to make short term adjustments in available bank reserves. Today this is the tool used by the Fed to fine-tune the monetary policy.

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(54) The Government Securities Act was passed in U.S. in 1970 to address the abuses that had resulted in customer losses when the security was held by the seller. Its requirements include that (1) written repurchase agreements must be in place (2) the risks of the transaction must be disclosed to the customer (3) Specific repurchase securities must be segregated for and allocated to the customer and (4) confirmations must be made and provided to the customer by the end of the day on which the transaction is initiated and on any day on which a substitution of securities occurs. Participants in Repo transaction now will often require securities to be delivered or held by a third party custodian. See for details Board of Governors of the Federal Reserve System. Commercial Bank Examination Manual. Section 2020.1, "Bank Dealer Activities."

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(55) Supra.

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Being a dollar denominated market where the daily transaction is estimated to be close to \$ 2.4 trillion the New York Government Securities Clearing Corporation (GSCC) is set to launch a new service called “general collateral finance” (GCF) Repo.<sup>(56)</sup> This new arrangement is aimed to open up a tri- parte Repo market among the bond dealers who own a major share in the daily Repos.<sup>(57)</sup> In this arrangement the dealers are not forced to allocate the underlying collateral on each transaction. And this will surely increase the trade volume as the traders would not be bogged down doing the operational tasks usually associated with the delivery Repos. Through this facility the trader will be able to hit a one year old bid (for collateral) or can change the collateral every day as the traders will have a higher nettability because of the reason that the number of counter parties will get reduced and since the GCP Repos greatly improve the liquidity of the market. Like any other new concepts this new format is also not devoid of shortcomings.<sup>(58)</sup> An agreement to solve the clearing problems associated with the introduction of GCP Repos is believed to be taken up soon. Because the new format has got a strong industry demand as it will allow dealers to access greater bottom-line trading profitability by making assessments based on interest rate assumptions, instead of being slowed by the tedious process of immediately assigning the collateral required on most delivery-versus payment Repos. The highest yielding Repo investment in U.S includes unsecured mortgages or consumer loans, called whole loans. Loans are typically single family

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(56) GCF Repo service is designated in cooperation with Bank of New York and Chase Manhattan Bank at the request of and in coordination with the GSCS members and Repo implementation committee. Under this service GSCC will allot CUSIPS (specific codes for the securities used as collateral instead of allotting specific collaterals like two year treasury notes or bill for each Repo in accordance with the dealer’s requirements. The proposition of GSCC is that there will be one CUSIP to denote all treasury Securities with maturities under 10 years another one for mortgage backed securities and the like.

(57) <http://www.nsc.com/newsletters/update>

(58) Extracts from an article published by Merrill Lynch, Pierce, Fenner & Smith, “The changing world of Repo”, 1996.

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mortgages, commercial mortgages, consumer loans, credit card payments and other receivables.

The Repo market has been slow to develop in Europe partly because of the lack of understanding of Repo as a financial tool and partly because of the rigidity of the European legal and regulatory systems. But now it is widely recognized that one of the hottest financial instruments in Europe is the non dollar Repos.<sup>(59)</sup> Most European banks are using Repos as their chief monetary policy instrument. Bank of England has been using gilt Repo market<sup>(60)</sup> as a daily intervention tool in its monetary management policy. Since the introduction of euro the European Repo market has been developed swiftly with more and more emphasis on cross boarder transactions. This has led to a standardized euro- denominated General Collateral (“GC”) market. And the market is ready for a representative bench mark. The bench mark for the secured money market transaction in the Euro zone will be EuRepo.<sup>(61)</sup>

In Germany from January 1, 1997, Deutsche Bundesbank has exempted banks from maintaining minimum reserves on Repos with a maturity period up to one year and it has brought about a boom in the Repo market. The Repo market in France has become, over the last few years, the second largest, after the U.S market, in size and liquidity.<sup>(62)</sup> In Russia collateral is in the form of Ministry of Finance Bonds known as Min Fin. And though denominated in dollars securities are issued in the local market and Russians and foreigners alike can accept custody with a local bank. Other dollar denominated securities are Argentinean government BOCON, BOTE and BONEX issues that can be settled through Euro clear or local delivery.<sup>(63)</sup> The matched book trading

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(59) Global Custodian, March 1993.

(60) Satellite trading.

(61) Eurepo is the rate at which one prime bank offers funds in euro to another prime bank if in exchange the former receives from the latter Eurepo GC as collateral. Eurepo is supported by the European Banking Federation (FBE) and the European Repo Council (ERC).

(62) A Report from BIS (Bank for International Settlements), “Implications of Repo markets for Central Banks”, CGFS Publication No. 10 March 1999.

(63) Ibid, Merrill Lynch, Pierce, Fenner & Smith, “The changing world of Repo”, 1996.

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activity in Min Fins and, to a lesser extent in the government debt of the Czech Republic and Slovakia, is similar to that which drives the Latin American Brady bond Repo market. The South African Repo market is booming up with the development of specials and general collateral.<sup>(64)</sup> There is growth in the Far East also but because of several reasons many governments in Asia are concentrating on stimulating their economy by spending on infrastructure keeping the interest rate low. So that debt issuance is increasing and thereby bond markets are increasingly becoming liquid. It can be said that Asia is still a cash and carry market. Recently, Japan has launched a new and improved domestic Repo system. Earlier, in Japan there were two markets which resembled to a greater extent to the western Repo market: the gensaki, a general collateral market for financing transaction but subject to a transaction tax and the taishaku, a fee based bond borrowing market. The main drawback of the gensaki market was and still is the transaction tax. The taishaku transaction, where specific bonds are borrowed even though had the advantage that it is devoid of this tax it had the drawback that it is un collateralized and therefore lack the security element which is Repo's hall mark. It is the collapse of Barings which called for the introduction of a safer and improved Repo system. The new Repo market is a combination of both the genasaki and the taishaku markets and can be used for both general collateral (financing) transaction and bond borrowing. A standard legal agreement is also formulated in Japan.

When compared to the rest of the world the Indian experience is much more different. In India, the policy in regard to Repos swung in between two extremes. Institution wise both banks and inter-banks were allowed to participate in the market and instrument wise all Government Securities and Public Sector Units (PSU) were eligible for Repos till April, 1988. Between April 1988 and mid June 1992, only inter bank Repos were allowed but in all government securities. Double ready forward transactions were part of the Repo market throughout this

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(64) Belinda Beresford, "What's the Repo rate anyway?", June 19, 1998, South Africa.

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period. Due to the irregularities in the securities transaction that surfaced in April, 1992, as part of the new guidelines on investment management by banks and institutions, Repos were banned in all securities except Treasury bills. Presently, Repos are permitted in all central government securities amongst banks, primary dealers and satellite dealers with the objective of smoothening inter-bank adjustments in liquidity. The controls are being relaxed in a phased manner with a view to expanding the market in terms of participants and instruments.<sup>(65)</sup>

The Foreign Currency Department of the Bank of Israel's spokes person has commented that, the lack of markets for repurchase agreements in Israel is one of the reasons that Israel's capital market is not sufficiently developed, and that the government bond market is relatively illiquid.<sup>(66)</sup> He upheld that the development of Repo market will enhance competition with the banking system, enable institutional investors to manage their asset portfolios in the best possible way, reduce interest rate for borrowers and raise interest rates for lenders. The Foreign Currency Department observes that there are several reasons for the poor development of Repo market in Israel: In Israel most activities in securities are controlled by banks, which have a relatively cheap source of loans available, whereas, Repo transactions serve as a source of short-term loans for holders of securities. Most institutional investors have ties with the banks who naturally are not interested in the development of a non-bank market for loans such as Repo market. So when these investors require liquidity they rather prefer banks than Repo transactions. Sale in securities in Israel is carried out via Tel Aviv Stock Exchange and not through market makers as in the case of other developed countries. The clearing system in Tel Aviv Stock Exchange, whereby the ownership of a security is transferred the day following the transaction, makes it difficult to clear short term loans against securities, especially for a day as in the case of Repos.

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(65) Report prepared based on the request of the Technical Advisory Committee on Government Securities market of India.

(66) Press release of July 18, 2000.

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## 8. Conclusion:

The Repo market is developing in a fast pace and is one of the largest and the most liquid financial markets of the world on the basis of the type and volume of arrangements involved. Due to the unavailability of the regulatory Reports a clear description of the size of the market is not available. However, the Reported figures shows that the average daily activity of Repos has been doubled since 1981 and has increased approximately tenfold since 1981.<sup>(67)</sup> Complimentary financing rates, Flexible maturities and variety of terms and collateral arrangements might have led to this rapid growth.

It is believed that the Repo will soon take control of our financial lives as banks cite this as a reason for putting up their interest rate. The Repo rate has made the interest rate potentially more volatile. The Banks will blame international competition, the need for strong financial services companies and the requirements of their share holders for the fluctuations in the interest rate. The Repo rate is interlinked to all the economic aspects of a country. An abruptly falling currency is something which the countries try to avoid as this will bring about tremor throughout the economy.

## BIBLIOGRAPHY

### 1. Books:

- 1 - P. S. Atiyah, J. Adams, *Sale of Goods*, Ninth Edition. (Pitman Publishing, London) 1990.
- 2 - Abdel aziz Al Khayat, *Companies in Islamic Sharia' Endowments and Islamic Affairs Circulars*, Amman, first edition, 1971.
- 3 - Abdel aziz Al khayat, *Shares and Bonds in Islam View*, Daralsalam, Cairo 1989.
- 4 - Ali Al khafeef, *Companies*, Arab Studies Institute, Cairo 1962.
- 5 - Ali Alsaloos, *Bravest to Give Fatwa*, Aleitisaam Publishing House, Cairo, 1990.

---

(67) Reports of the Banks, thrifts and Primary Government Securities dealers.

- 
- 
- 6 - Ali Alsaloos, Rules of Banks Deposits and Investment Certificates, Culture Publishing House, Doha, first edition 1990.
  - 7 - Ali Alsalous, Islamic Economy and Current Fiqh Problems.
  - 8 - Ashraf Abdel maksoud, Fiqh and Fatwas of Sales, Lights of Ancestors Library, Riyadh, second edition, 1996.
  - 9 - Ashraf Ben Abdel maksoud, Sales fiqh& fatwas.
  - 10 - Mahmoud Shaltout, Fatwas, Daralshurook, tenth edition.
  - 11 - Mohamad Youssef Mosa, Islam and our Present Problems: the Technical Bureau, 1958.
  - 12 - Mohammad Abuzahra, Social, Solidarity in Islam: A Research in the Islamic Researches Complex, second volume.
  - 13 - Mohammad Fawas kalaji, Current Financial Transactions in Light of Fiqh & sharia' Daralnaafa, first edition 1999.
  - 14 - Mohammad Othman, Current Financial Transactions in Islamic Fiqh, Daralnaafais, Jordan, first edition 1996.
  - 15 - Mohammad Qalaji, Current Financial Transactions in the Light of Fiqh and Sharia, Daralnaafais, first edition, 1999.
  - 16 - Morwan Awad, Foreign Money, Investment and financing between Practical and Theory, Amman, 1988.
  - 17 - Roy Goode, *Commercial Law* 2<sup>nd</sup> Edition (Penguin books Ltd., London) 1985.
  - 18 - Erich Spornli (Director, Swiss National Bank), The Repurchase Agreement (Repo) as a Monetary Policy Instrument.

## **2. Reports &Articles:**

- 1 - A Report from Ameritrade, “ Investing online at Ameritrade” (division of Ameritrade IP Co. Inc, member of NASD/ SIPC) Precious Information LLC 1999.
- 2 - A Report from BIS (Bank for International Settlements), “Implications of Repo markets for Central Banks”, CGFS Publication No. 10 March 1999.
- 3 - Asset Publications, “Trader’s Guide to Repo Market, Asset International Inc”, (1995).
- 4 - A Report from New York Government Securities Clearing Corporation.

- 
- 5 - "Bank of Japan Accounts" as from the Report for April 10, 2001.
  - 6 - Belinda Beresford, "What's the Repo rate anyway?", June 19, 1998, South Africa.
  - 7 - Board of Governors of the Federal Reserve System. Bank Holding Company Supervision Manual. Section 2150.0, "Repurchase Transactions."
  - 8 - Board of Governors of the Federal Reserve System. Commercial Bank Examination Manual. Section 2030.1, "Bank Dealer Activities."
  - 9 - Board of Governors of the Federal Reserve System. Commercial Bank Examination Manual. Section 2020.1
  - 10 - Clarke, David. "U.S. Repo: A Model Market." International Securities Lending. September 1998.
  - 11 - Cook, Timothy Q and Robert La Roche, eds. "Instruments of the money market", 7<sup>th</sup> Ed. Federal Reserve Bank of Richmond, 1993
  - 12 - Cook, Timothy Q. "Determinants of the Spread Between Treasury Bill and Private Sector Money Market Rates," *Journal of Economics and Business*, Vol. 33 (Spring 1981), pp. 177-87, and Thomas Hahn. "Interest Rate Expectations and the Slope of the Money Market Yield Curve," *Federal Reserve Bank of Richmond Economic Review*, vol. 76 (September/October 1990), pp. 3-26
  - 13 - Extracts from an article published by Merrill Lynch, Pierce, Fenner & Smith, "The changing world of Repo", 1996.
  - 14 - Global Custodian, March 1993.
  - 15 - "How Banks Reap the Benefits of Repo." International Securities Lending. Second quarter 1994.
  - 16 - Israeli Press release as on July 18, 2000
  - 17 - Judy Kornfeld, "An introduction to Esop repurchase agreements" Article published in *esopecconomics.com*.
  - 18 - Mishkin, Frederic S. *The Economics of Money, Banking, and Financial Markets*. 4th ed. New York: Harper Collins College Publishers, 1995.
  - 19 - Richmond Va.: Article published by Federal Reserve Bank of Richmond, Virginia 1993.
  - 20 - Ron Morrow, Article published by Bank of Canada Volume

- 
- [1995].
- 21 - Rosemary Brady (Sec of National Credit Union), Article published by the National Credit Union Adm: on Nov: 14 1985.Federal Reserve Bank of New York.
  - 22 - Stephen A. Lumpkin “Repurchase and reverse repurchase agreements” Article published by Federal Reserve Bank of Richmond, Virginia 1998.
  - 23 - Stigum, Marcia. “The Money Market”. 3rd ed. Burr Ridge, Illinois: Irwin Professional Publishing, 1990.
  - 24 - Stigum, Marcia. “The Repo and Reverse Markets”. Homewood, Illinois: Dow Jones-Irwin, 1989.
  - 25 - Timothy Q. Cook and Robert K. La Roche “The money market” Article published by Federal Reserve Bank of Richmond, Virginia 1998.
  - 26 - Timothy Q. Cook “Treasury bills” Article published by Federal Reserve Bank of Richmond, Virginia 1998.
  - 27 - U.S. Bankruptcy Code.

### **3. Other resources:**

- 1 - <http://www.riskglossary.com/link/repo.htm>.
- 2 - <http://www.bba.org.uk/bba/jsp/polopoly>.

### **4 .Codes :**

- 1 - Kuwaiti Civil Code No.67 of 1980.
- 2 - Kuwaiti Commercial Code No.68 of 1980.