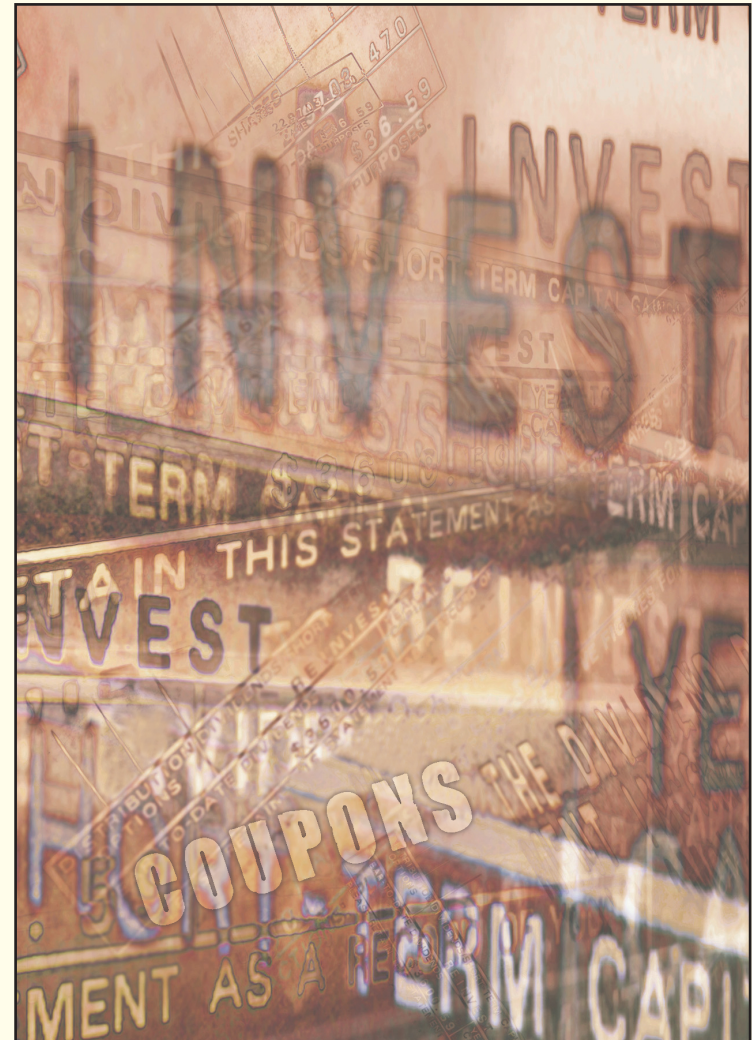


An Introduction To Term Finance Certificates



TAURUS
SECURITIES LIMITED

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Introduction

There is a need for corporate debt instrument in Pakistan due to the crowding out effect by government borrowing.

In particular, employee benefit funds and insurance company funds face an acute problem: Unless maturing assets, and new inflows, are (re) invested in alternative high yield investments, those funds face the risk of becoming under-funded (present value of funds less than present value of liabilities).

Corporate Term Finance Certificates (TFCs) offer institutional investors, in particular provident funds, pension funds and insurance companies, with a viable high yield alternative to the NSS and bank deposits. They are also an essential complement to risk free, lower yielding government bonds such as PIB's. As a result, *the demand for TFCs is growing steadily, and will gather increasing momentum in the future.*

Being a relatively new instrument in the Pakistan capital market, corporate bonds in general and TFCs in particular, are not well understood by the average investor. This booklet, aims to address that problem by answering questions that are most frequently asked by investors: What is a TFC? Which ones should I buy? How can I buy *and sell* them? etc. The booklet is not exhaustive, it is only meant to set investors off on the road to a better understanding of the instrument

The booklet is an educational tool. To meet the demand for TFCs in the Secondary Market, TSL has also launched a TFC market-making service. The term market-making means TSL will quote daily bid (buy) and offer (sell) prices for a range of TFCS on the Karachi Stock Exchange trading system through TSL. Buyers and Sellers wishing to trade TFCs at those prices, may contact TSL to execute their orders. The service provides a means by which investors can buy TFCs when they require, and find a ready buyer when they wish to sell.

Should you be interested in availing of the above service, as a buyer or seller of TFCs, please do not hesitate to contact us.¹ We would also welcome any queries that you might have, on TFCs in general, and our service in particular.

We look forward to being of service to you.

This publication is issued by **Taurus Securities Limited (TSL)**. TSL is a subsidiary of the **National Bank of Pakistan**, and is a leader in securities broking. While every effort has been made to ensure the factual accuracy of the publication's contents, TSL does not accept any liability, whatsoever, for consequences arising from its use.

¹Please see contact information at the end of this booklet

An introduction to fixed income securities (FIS)

What is a FIS?

Definition: A fixed income security (FIS) is an investment vehicle that provides a return in the form of fixed periodic payments and return of principal.

A 'bond' is a generic type of fixed income security. The key features of a bond are:

- Coupon payment – periodic interest payment made to bond holders during the term of the bond.
- Principal payment – the face value of the bond repaid at maturity.
- Term to maturity – number of years remaining in the life of the bond.

Types of fixed income securities: There are several *types* of FIS depending upon who the issuer is, and what type of risk / return characteristics the instrument offers.

Types of issuers

- Governments (e.g. PIBs, NSS)
- Government agencies (e.g. WAPDA)
- Financial Institutions (e.g. COIs)
- Corporates (e.g. TFCs, preferred stock)

Types of returns

- Fixed rate bond – carries a fixed coupon rate (as a percentage of par value).
- Floating rate bond – carries a *floating*, i.e. variable, coupon rate, based on a benchmark rate (usually the SBP discount rate in Pakistan) plus/minus a premium/discount that reflects the risks of the bond. The coupon rate is reset on specified dates.
- Caps/Floors – applicable on floating rate securities. Caps and floors impose limits on the maximum and minimum coupon rate respectively.

Embedded Options

Some FIS also have *embedded options* that give certain rights to the issuer or bondholder. There are two basic options:

- **Call option** – this option gives the *issuer* the right to redeem the outstanding bond issue at specified dates, and at a specified price, prior to maturity.
- **Put option** - this option gives the *bondholder* the right to sell the bond back to the issuer at specified dates, and at a specified price, prior to maturity.

How is the price of a bond determined?

A bond's price equals the sum of the present values (PV) of all future cash flows (coupon + principal) associated with the bond, discounted at the *required yield*. The *required yield* is the yield that an investor wants from investing in a bond.

Illustration - pricing a basic bond

Type: Fixed rate coupon, option free bond

Face value – Rs 10,000
Term to maturity – 5 years
Coupon rate – 10%pa fixed = Rs 1,000
Coupon payment - annual
Required yield (discount rate) – 12%pa

Cash (outflows)/inflows (Rs)	(10,000)	1,000	1,000	1,000	1,000	1,000	+10,000
Time	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
Sum of PV of cash flows (Rs) (discounted @ 12%pa)		893	+ 797	+ 712	+ 635	+ 6,242	

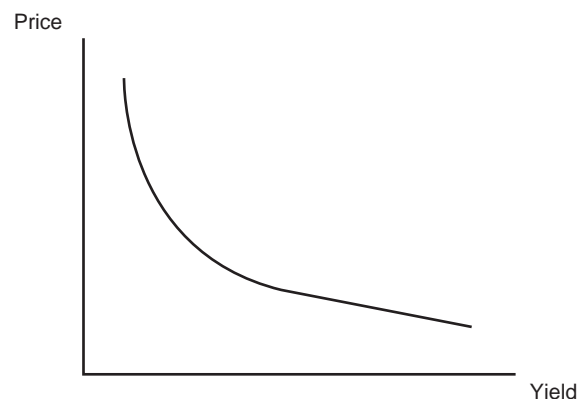
Price of bond today = Rs 9,279

Relationship between required yield and price at a given time

The *price and yield of a bond move in opposite directions - i.e. they are inversely related*. Thus, as the required yield rises, the price of the bond falls, and vice versa. This key relationship is derived from the method by which the price of a bond is calculated: since the price is the present value of future cashflows from the bond discounted at the required yield, the higher (lower) the yield, the lower (higher) the price of the bond. This so called

inverse relationship between the price and yield of a bond is the basis for understanding, valuing and managing bonds.

Inverse price/yield relationship



The *coupon rate* and *term to maturity* of a bond are fixed at a given point in time – therefore, yield changes have to be reflected by changes in the price of the bond. Hence,

- When the coupon rate = the required yield \Rightarrow price = par value.
- When the coupon rate < the required yield \Rightarrow price < par value.
- When the coupon rate > the required yield \Rightarrow price > par value.

For a bond not trading at par, the price will converge towards its par value as the bond moves towards maturity. Hence,

- At maturity price = par value.

Bond pricing between coupon periods

When a bond is sold, the *seller*, in return for receiving the price of the bond, transfers the ownership of *all future cashflows* from the bond to the *buyer*, from the *settlement date* onwards i.e. the date on which the *seller* gives delivery of the bond to the *buyer*. If the bond is sold between coupon payment dates, the buyer will receive the whole of the next coupon payment, even though the seller would have held the bond for a part of the coupon period.

In a liquid, secondary bond market, trading takes place continuously. It is likely, therefore, that most trades will take place between coupon payment dates, given the time length

between those dates. In such cases, the price of the bond has to be adjusted for that part of the next coupon payment that belongs to the *seller*, for having held the bond for the period between the last coupon payment date, and the trade *settlement date*. This is called *Accrued Interest*, and it is computed as follows:

- $$\frac{\text{Number of days from last coupon payment date to settlement date} \times \text{Coupon payment}}{\text{Number of days in coupon period}}$$

Bond prices in the secondary market are, therefore, quoted on the following bases:

- **Cum-interest price:** (a.k.a. *full or dirty price*) includes the accrued interest that belongs to the seller. The buyer pays only the quoted price to the seller.
- **Ex-interest price:** (a.k.a. *clean price*) does not include the accrued interest i.e. the buyer would have to pay the seller the quoted price *plus the accrued interest*.

Be sure to check which of the two price types is being quoted to you.

How is the yield of a bond determined?

The underlying yield of a bond can be determined by using the bond's price, and its cashflows. There are three sources of potential cashflow from holding a bond:

- The coupon payments.
- Capital gain / (loss) from the difference between the purchase and sale (redemption) price when the bond is sold (redeemed).
- Income from reinvestment of coupon payments.

Common yield measures

Current yield: Considers only coupon payments \Rightarrow
$$\frac{\text{Annual coupon payment (in Rs)}}{\text{Price}}$$

Yield to maturity (YTM): Considers coupon payments, capital gain/(loss) and reinvestment of coupons. The YTM is the *discount rate that equates the present value of future cashflows to the current price; in other words, it is the Internal Rate of Return (IRR) of the investment*, a concept familiar to financial analysts.

The YTM is an *expected* return, which means that it will only be *realised* under certain conditions. The investor will only realize the YTM if:

- The bond is held to maturity.

- Coupon payments can be reinvested at the YTM.

If *either* of these conditions is not met, the *actual* return to the investor may be different (higher or lower) from the YTM.

Total return: Considers coupon payments, capital gain/(loss) and reinvestment of coupons. Total return is *the discount rate that equates the present value of future cashflows to the current price under certain assumptions:*

- A holding period based on the investors' investment horizon.
- An *expected* coupon reinvestment rate over the holding period
- An *expected* selling price for the bond at the end of the holding period

What are the benefits of investing in fixed income securities?

- FIS provide regular income under varying combinations of risk and return.
- The return from investing in fixed income securities is best illustrated through a comparison of historical returns from various financial instruments.

Comparative annualised returns

Holding period	June 1998 to May 2002			
Annualised inflation during the holding period	5%			
	KSE-100 index	TFC (Gatron) Industries	DSC	Bank deposit
Nominal return	43%	30%	26%	10%
Real return	37%	24%	20%	5%

- The fixed, periodic nature of cashflows allows the investor to better match future payment liabilities. This feature is especially useful for institutions such as insurance companies and provident/pension funds.

What are the risks associated with investing in fixed income securities?

There are a number of *potential* risks that fixed income securities may be exposed to. The major ones are:

- **Interest rate risk:** This risk arises from the inverse relationship between price and yield. If market interest rates rise, increasing the required yield on bonds, the price of the bond will fall, resulting in a capital loss to the investor. Conversely, if interest rates fall, the required yield on a bond will also decrease, and the price of the bond

will rise, resulting in a capital gain to the investor.

A common measure used to quantify interest rate risk is **duration**, which *measures what the approximate percentage change in price would be (hence the capital gain/loss to the investor), if interest rates changed by one percentage point from current levels.* Thus, duration is a measure of bond price sensitivity to interest rate changes.

The duration measure observes the following general relationships, holding other factors constant:

- The longer a bond's term to maturity, the higher its duration
- The lower a bond's coupon payments, the higher its duration
- The lower a bond's initial required yield, the higher its duration

The above relationships suggest the following bond trading strategy: If bond yields are expected to *rise* (prices fall), then invest in bonds with shorter durations (lower price sensitivity), i.e. in bonds with shorter terms to maturity, higher coupons and higher yields. The opposite strategy would apply if bond yields are expected to *fall*.

- **Reinvestment rate risk:** *This risk refers to the possibility that coupons may not be reinvested at the calculated YTM due to changes in market interest rates over the life of the bond.* Thus, the investor's *realised* YTM may differ from the *calculated* YTM. However, this risk moves in the opposite direction to interest rate risk i.e. rising interest rates increase interest rate risk, but reduce reinvestment rate risk, and vice versa.
- **Call risk:** Specific to bonds with call options, this is *the risk investors face of the issuer exercising his call option and redeeming the bonds before the maturity date.* Issuers with call options usually redeem issues at an earlier date if interest rates fall below the coupon rate, thus reducing their financing costs.
- **Credit risk:** This is *the risk of default by the issuer* e.g. inability to make coupon payments on the specified date, or redeem the bond at maturity.
- **Unexpected inflation risk:** *The risk that the real (after inflation) value of cash flows received during the life of a bond may vary from the expected real value due to unanticipated changes in inflation.* Inflation that is *anticipated*, however, is built into the required nominal yield to provide a required real yield.
- **Liquidity risk:** *The risk that the bond may be sold below its true value due to a lack of market trading.*

How can I manage those risks?

To minimize specific FIS risks, the following strategies are recommended:

Risk	Strategy
Interest rate	Invest in bonds with a low duration. This means the price change (volatility) of the bond will be low (relative to a bond with a higher duration) for a 100 basis point change in interest rates.
Reinvestment rate	Reduce holding period as this risk is greater for longer holding periods.
Call	Expect a higher yield (call risk spread) than non-callable bonds to compensate for the call risk; alternatively, avoid bonds with a call option.
Credit	Invest in securities with high credit rating. Credit rating agencies assign corporate debt instruments a rating based on several aspects of the company, a major one being the company's ability to service payments on the instrument. Also, diversify credit risk by investing in a basket of bonds.
Unexpected Inflation	Invest in floating rate bonds as these adjust for changes in inflation rates (albeit with a lag).
Liquidity	Invest in instruments with high trading volumes, reflected in a low bid-offer spread.

A broad based risk management strategy is to diversify the portfolio by investing in a variety of financial instruments (government bonds, corporate bonds, and equities).

An introduction to Term Finance Certificates (TFC)

What is a TFC?

A Term Finance Certificate (TFC) is a *corporate debt instrument issued by companies in Pakistan to generate short and medium-term funds.*

Types of TFCs

- The TFCs issued to date include both fixed and floating rate instruments, although issuers have lately tended to favour the floating rate variant.
- The coupon rate on floating rate TFCs is set at a *risk-free* benchmark rate plus a risk spread to reflect the relative risk of the instrument. The *risk-free* benchmark is typically the SBP's discount rate, or the auction yield on the Pakistan Investment Bond (PIB) of equivalent maturity.
- Floating rate TFCs may impose *caps* and *floors* on the coupon payments.
- Some TFCs may have embedded *call* and *put options*.

Parties to a TFC

There are three contractually related parties involved in a TFC issue: the issuer (the borrower), the investors (the lenders), and the trustee. The trustee, typically a financial institution, is appointed by the issuer to protect the contractual rights and interests of investors at all times.

Listing

- The issuer has the option of listing the TFC on any one or all of the stock exchanges in Pakistan.
- The TFC remains listed for the entire tenor of the issue and is automatically delisted at maturity.
- A listed TFCs is tradable at the exchange where it is listed. *In fact, legally, a listed TFC can only be traded on the exchange at which it is listed, through a licensed member of that exchange.*
- Unlisted TFCs are not tradable on an exchange, but may be *traded through negotiation directly between buyers and sellers.* Unlisted TFCs may, therefore, be less liquid than listed ones, in which case they would offer a liquidity risk spread over comparable listed TFCs.

Rating

All TFCs must be *rated* before they are issued. The rating is conducted by a *rating agency*, which conducts a comprehensive analysis of the credit outlook of the issuer, and the structure of the TFC, before conferring a rating on the TFC. The rating reflects, *in the opinion of the rating agency*, the credit risk of the TFC, i.e. the issuer's ability and commitment to repay scheduled TFC payments. PACRA and JCR-VIS are the two rating agencies presently operating in Pakistan. Their current rating categories can be found in the annexure.

Who is eligible to invest in TFCs?

Investment and commercial banks, non-banking financial institutions, leasing companies, insurance companies, pension and provident funds, corporates and individuals can all invest in TFCs. **However, insurance companies and provident/pension funds can only invest in listed TFCs. In addition, provident/pension funds may only invest in TFCs rated 'BBB' and above, i.e. in investment grade TFCs only (see annexure on ratings).**

How is a TFC's cashflow structured?

Like bonds, TFCs are structured to provide regular income in the form of coupons, which

are typically paid semi-annually. However, unlike a generic bond, where the principal is repaid in lump sum at maturity, a TFC's principal is gradually redeemed over the tenor of the instrument.

Typically, TFC principal redemptions start 2 to 3 years after issue, in equal semi-annual installments, with the last installment paid at maturity. Thus, TFC cashflows are recovered faster than those from a generic bond. Other things being equal, *accelerated cashflow recovery reduces the risk of a TFC versus a generic bond of equivalent maturity.*

A typical TFC cashflow structure would be as follows:

Typical TFC Structure

Issuer PARCO
Issue date 12-Dec-01
Tenor 3 years
Coupon rate Floating
 Last auction cut off yield on 3 year PIB + 1.45%p.a.
 Floor -13% p.a.
 Cap - 15% p.a.

Base rate

Spread

Semi-annual coupon payments calculated at floor rate

Investment amount Rs500,000 i.e. 100 units of Rs5,000 face value each

Date of Coupons Maturity	Principal Redemption Rate	Interest Earned	Principal Redeemed	Total Amount	Principal Outstanding
12-Jun-02	1.00	32,500	100	32,600	499,900
12-Dec-02	1.00	32,494	100	32,594	499,800
12-Jun-03	1.00	32,487	100	32,587	499,700
12-Dec-03	1.00	32,481	100	32,581	499,600
12-Jun-04	2,498.00	32,474	249,800	282,274	249,800
12-Dec-04	2,498.00	16,237	249,800	266,037	-
Total	5,000.00	178,672	500,000	678,672	

Principal redeemed in last two tranches

A TFCs may, or may not, be backed by collateral security. Secured TFCs would be backed by different types of security, including corporate guarantees and fixed and floating charges on assets. The *ranking* (first, second etc.) of the charge on assets, relative to other secured creditors, may also vary.

Unsecured TFCs offer no specific asset charge to holders, or payment guarantee. In the event of a default, the trustee may initiate recovery proceedings, but unsecured TFC holders' claim on the proceeds from the liquidation of the issuers' assets would be *subordinate to all secured creditors and rank senior to equity investors only.*

The security features of a TFC would be reflected in its credit rating, and hence in its *required yield.* Other things being equal, a TFC with superior security features should trade at a lower yield than a TFC with inferior security features.

Who safeguards my interests as a TFC investor?

A **trustee** is appointed jointly by the issuer and arranger (financial institution handling the initial sale of TFCs on the issuer's behalf) to safeguard the interests of investors. The trustee's functions, described in the **Trust Deed** executed between the trustee and issuer, include:

- Monitoring the performance of the issuing company.
- Keeping a check on the possibility of default on coupon/redemption payments to investors.
- Acting as a custodian of security on the investors' behalf.
- In case of default, enforcing contractual provisions for the recovery of investors' dues.

What happens if the issuer defaults on coupon, or redemption payments?

Being corporate debt instruments, TFCs are *risky assets*, in the sense that they carry varying degrees of *default risk.* On the other hand, government debt obligations – T-Bills, PIBs, NSS – are defined as *risk free assets*, although, strictly speaking, even government bonds carry some level of *sovereign default risk.* To compensate investors for the higher default risk compared to government debt, corporate bonds offer a higher yield (*risk spread*) over comparable government bonds.

The Trust Deed would specify the actions that the trustee, on behalf of investors, may take in the event of a default in the payment of coupons and/or principal (or any other event of default covered in the Trust Deed). Unless the default is remedied by negotiation to the investors' satisfaction, in the last resort, *the trustee can initiate legal action to enforce the security held by it. The proceeds of the enforcement (sale) are distributed amongst the TFC holders in proportion to their holdings at the time.*

What taxes are applicable on TFCs?

- Coupon payments are subject to income tax on the following basis:

Income tax on TFCs		
Employee benefit funds (PF etc.)	Corporates	Individuals
Approved funds are tax exempt	Exemption on withholding tax. Income from corporate debt instruments taxed at normal corporate tax rate.	10% withholding tax paid up front - subsequently adjusted against final tax liability at the time of assessment.

How are listed TFCs traded in the secondary market?

To trade listed TFCs you would need to approach a broker licensed to deal on the exchange on which the TFC is listed. The basic features of secondary trading are as follows:

- **Trading:** Bid (buying) and offer (selling) prices for TFCs listed on the KSE may be found on the Bonds Automated Trading System (BATS). Quotes for TFCs listed on the Lahore Stock Exchange (LSE) may be found on the trading system of the LSE. Licensed members of the exchange place those bids and offers in the market on behalf of their clients. Prices are quoted for specific quantities, known as *trading lots*.
- **Trading lot:** The trading lot for a TFC is *one unit* and multiples thereof. Typically, one unit has a face value of Rs,5000.
- **Delivery:** TFCs may be traded in both physical (paper) and electronic form. Like shares, physical TFCs are delivered with attached *transfer deeds*, properly signed and verified. Alternatively, TFCs may also be delivered in electronic form through the Central Depository System (CDS). The CDS is an *electronic share/certificate register* operated by the Central Depository Company (CDC).

The CDS eliminates the need for physical movement of shares/certificates. It has also solved investor problems related to handling of paper shares/certificates on the settlement date, registration of shares/certificates, and exercise of corporate action benefits. You may open your own account with the CDC for secure custody of your TFC holdings, and for receiving/delivering TFCs against purchases/sales. (For details, contact the CDC at: 92-21-111-111-900). Alternatively, you can leave your TFCs in the custody of your broker in a *sub-account* in your name. Ask your broker for details.

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- **Transaction costs:** The transaction costs for a TFC would normally consist only of the following:

- **Brokerage commission:** The commission your broker would charge for execution services. Since there are no prescribed commissions for TFC transactions, these may vary from broker to broker. Get, and agree to, a commission rate before you place an order with your broker.
- **CDS cost:** The CDC will charge you for each inward and outward movement of certificates through your account against purchases and sales. Currently the CDC charges Rs.0.0012 per unit of TFC received in, or delivered from, the account. However, charges may vary over time, so keep a check on the charges by contacting the CDC.

How can I buy/sell TFCs through Taurus Securities?

Taurus Securities is a leading corporate member of the Karachi Stock Exchange (KSE). Through us, you can buy and sell TFCs listed and traded on the KSE. In addition, through our affiliates in Lahore, we can provide you with access to TFCs listed and traded on the Lahore Stock Exchange.

You can buy/sell TFCs through Taurus Securities via the following simple process.

- You contact our TFC dealing desk, specify your requirements (buy or sell), and ask for current market quotes.
- The dealer checks the available market quotes for your specified TFC(s), and communicates the available bid/offer prices and quantities to you.
- You ask the dealer what the broking commission for the transaction would be.
- Should you find an available price that matches your requirement, and the commission rate is acceptable, you ask the dealer to execute your order at that price specifying the quantity in units (units are defined above in 'Trading Lot').
- If the available quotes do not match your requirement, you ask the dealer to place your order in the market through the trading system, specifying price, quantity and validity period (e.g. '*good for the day only*', '*good till done*', etc.).
- In either of the above cases, you will receive a verbal confirmation via phone as soon as your order is executed, followed by a printed contract the next day, containing the gross price, commission, net price, quantity, net value of payment due to (sale)/from (purchase) you and the settlement date.

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- If you have bought TFCs, you will need to send us the net purchase amount at least one day prior to the settlement date for us to pay that amount to the counter-party early on the settlement day. *Please note the funds should be credited to our bank account at least one day prior to the settlement day.*
 - If you have sold TFCs, *you will need to deliver the TFCs to us at least one day prior to the settlement date*, in order that we may deliver them onward to the counter-party early on the settlement day. Your proceeds will be paid to you the day after the settlement day.
 - If the TFCs are traded in electronic form, depending on your delivery instructions, purchased TFC's may be delivered to your CDS account (for CDS definition see above under '*How are listed TFCs traded in the secondary market?*'), or kept in custody by us in your CDS sub-account.
 - If the TFCs are in paper form, they will be delivered to you along with signed, verified transfer deeds.
 - The entire settlement cycle is *normally* completed in three days from the trade date.

Does Taurus provide research/advisory services?

Apart from execution services, we can also provide you with advice, guidance and research on TFCs and their issuers. Our advice is research driven, and is based on our outlook on future interest rates (and hence price direction), and view on the likely future financial condition of companies issuing and/or backing TFCs. *Our advisory service is strictly non-discretionary, that is you make the final decision on buying/selling.*

Contact Information

For TFCs:

- For research/pricing/yield and execution: Zain Husain at PABX: 111-828787
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-
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Annexure

JCR-VIS Credit Rating Company Limited

Affiliate of Japan Credit Rating Agency, Ltd.

Rating Scale & Definitions

Medium to Long-Term

AAA

Highest credit quality. The risk factors are negligible, being only slightly more than for risk-free Government of Pakistan's debt

AA+,AA,AA-

High credit quality. Protection factors are strong. Risk is modest but may vary slightly from time to time because of economic conditions.

A+, A, A-

Good credit quality. Protection factors are adequate. Risk factors may vary from possible changes in the economy.

BBB+, BBB, BBB-

Adequate credit quality. Protection factors are reasonable and sufficient. Risk factors are considered variable if changes occur in the economy.

BB+, BB, BB-

Obligations deemed likely to meet. Protection factors are capable of weakening if changes occur in the economy. Overall quality may move up or down frequently within this category.

B+, B, B-

Obligations deemed less likely to be met. Protection factors are capable of fluctuating widely if changes occur in the economy. Overall quality may move up or down frequently within this category or into higher or lower rating grade.

CCC

Considerable uncertainty exists towards meeting the obligations. Protection factors are scarce and risk may be substantial.

CC

A high default risk

C

A very high default risk

D

Defaulted obligations

Rating Watch

JCR-VIS places entities and issues on 'Rating Watch' when it deems that there are conditions present that necessitate reevaluation of the assigned rating(s). A 'Rating Watch' announcement means that the status of assigned rating(s) is uncertain. Development in factors other than those that necessitated the 'Rating Watch' may result in a rating change, while the rating(s) continues to be under 'Rating Watch'

Rating Outlooks

The three outlooks 'Positive', 'Stable', and 'Negative' qualify the potential direction of the assigned rating(s). An outlook is not necessarily a precursor of a rating change.

Suspension

In the event that JCR-VIS deems that, as a result of lack of corporation with regard to the provision of information or for any other reason it is not possible to access the current status of the assigned rating(s), the ratings will be suspended.

Withdrawal:

Ratings are withdrawn in the following situations:

- Non-renewal/cancellation of the rating agreement;
- Maturity of a rated issue; and
- Cessation of an entity for any reason.

Short-Term

A-1+

Highest certainty of timely payment. Short term liquidity, including internal operating factors and / or access to alternative sources of funds, is outstanding and safety is just below risk free Government of Pakistan's short-term obligations.

A-1

High certainty of timely payment. Liquidity factors are excellent and supported by good fundamental protection factors. Risk factors are minor.

A-2

Good certainty of timely payment. Liquidity factors and company fundamentals are sound. Access to capital markets is good. Risk factors are small

A-3

Satisfactory liquidity and other protection factors qualify entities/issues as to investment grade. Risk factors are larger and subject to more variation. Nevertheless, timely payment is expected.

B

Speculative investment characteristics. Liquidity may not be sufficient to ensure timely payment of obligations.

C

Capacity for timely payment of obligations is doubtful.

PACRA Standard RATING SCALE & Definitions

Long Term Ratings

AAA: Highest credit quality. 'AAA' ratings denote the lowest expectation of credit risk. They are assigned only in case of exceptionally strong capacity for timely payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very high credit quality. 'AA' ratings denote a very low expectation of credit risk. They indicate very strong capacity for timely payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High credit quality. 'A' ratings denote a low expectation of credit risk. The capacity for timely payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to changes in circumstances or in economic conditions than is the case for higher ratings.

BBB: Good credit quality. 'BBB' ratings indicate that there is currently a low expectation of credit risk. The capacity for timely payment of financial commitments is considered adequate, but adverse changes in circumstances and in economic conditions are more likely to impair this capacity. This is the lowest investment-grade category.

BB: Speculative. 'BB' ratings indicate that there is a possibility of credit risk developing, particularly as a result of adverse economic change over time; however, business or financial alternatives may be available to allow financial commitments to be met. Securities rated in this category are not investment grade.

B: Highly speculative. 'B' ratings indicate that significant credit risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is contingent upon a sustained, favourable business and economic environment.

CCC, CC, C: High default risk. Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon sustained, favourable business or economic developments. A 'CC' rating indicates that default of some kind appears probable. 'C' ratings signal imminent default.

Notes:

- PACRA's ratings are an assessment of the credit standing of entities in Pakistan. They do not take into account the potential transfer / convertibility risk that may exist for foreign currency creditors.
- A plus (+) or minus (-) may be appended to a rating to denote relative status within major rating categories. Such suffixes are not added to the 'AAA' long-term rating category, to categories below 'CCC', or to short-term ratings.
- PACRA's rating is not a recommendation to purchase, sell or hold a security, in as much as it does not comment on the security's market price or suitability for a particular investor.

Short Term Ratings

A1+: Obligations supported by the highest capacity for timely repayment.

A1: Obligations supported by a strong capacity for timely repayment.

A2: Obligations supported by a satisfactory capacity for timely repayment, although such capacity may be susceptible to adverse changes in business, economic, or financial conditions.

A3: Obligations supported by an adequate capacity for timely repayment. Such capacity is more susceptible to adverse changes in business, economic, or financial conditions than for obligations in higher categories.

B: Obligations for which the capacity for timely repayment is susceptible to adverse changes in business, economic, or financial conditions.

C: Obligations for which there is an inadequate capacity to ensure timely repayment.

D: Obligations which have a high risk of default or which are currently in default.