



FOREX, INTEREST RATE AND COMMODITY ADVISORY SERVICES

QUANTART MARKET SOLUTIONS PVT. LTD.

Mumbai, Singapore

CONTENTS

Sl. No.	Contents	Page No.
i.	About QuantArt	2
ii.	Our Clients	3
iii.	Forex & Interest Rate Advisory Services	4-6
iv.	Commodity Hedging Advisory Services	7
v.	Case Studies	8
vi.	Samples – <i>Morning Update</i> <i>Fx data MIS</i> <i>Recent MIS</i> <i>Sample ECB Evaluation and consideration slides</i> <i>Recent Webinar and Reports</i>	9-15
vii.	Senior Management	16
viii.	Why QuantArt?	17
ix.	Media Coverage and Industry Memberships	18
x.	Commercials and Engagement Terms	19-20
xi.	Annexure I: Some training contents for clients	21-23



About QuantArt

QuantArt Market Solutions Pvt Ltd is a niche financial markets advisory firm run by ex-investment bankers. **We act as an extended arm of the corporate treasuries of our clients and not as a distant advisor.** We help streamline risk management policies, identify and mitigate risks, reduce commodity hedging costs, put in place systematic hedging programmes and undertake treasury capability building.

QuantArt differentiates itself by selecting the most talented experts in the area of Treasury/FX risk management. We are unique in the fact that the advisory we do, is done directly by senior advisors and directors without any delegation. **We align ourselves with the client’s vision and set up “quantified measurable objectives.” These objectives are unique for each client. QuantArt has an impeccable record in achieving the objectives that we set with our clients. We do regular structured data driven reviews to assess “Committed vs. Achieved.”**

- QuantArt has large corporate/professional clients spread all over India, and we have a current book size of over USD 6 billion of exposures under advisory.
- We have collaboration with IIM Calcutta for Training
- We have trained over 500 participants from large corporates, banks and other advisory firms.
- We become part of your treasury team and are in sync with your functioning.
- We follow a conservative approach, are 24 hours focused on Global Markets and we use proprietary algorithms which has given unsurpassed performance.
- We are available anytime to take our clients calls – and this statement is not an exaggeration
- Our cutting-edge research, analysis and complex simulations akin to what is used in global treasuries and investment banks, our precision judgements to take swift and timely decisions continuously benefits our clients

QuantArt was started by few investment bankers who had seen the bank side of treasury and had realised the large gap in the market for appropriate, relevant, objective and transparent advise for corporate treasuries. **They started with the dream of making corporate treasury equipped with the knowledge and skills that the high-profile investment bankers possessed so that the corporates would neither get fleeced nor duped.** They introduced the combination of complex analytics and intuitive insights developed by managing and executing hundreds of complex deals.

Fast forward to today - **we continue to hold the trust of our client’s paramount and our objective is to ensure that our clients profit from their association with us continuously.** We go the extra mile to facilitate our clients in implementing what is relevant and good for them by proactive follow-ups. We even have a day end MIS on **“Advise vs Implemented.”**

We also believe that there are many nuances, intricacies and terms in the Treasury which may seem new /opaque to our client. We regularly conduct training programs for our clients through the year. **To give an example in January and February 2021 we conducted joint training programs with IIM Calcutta on “Advanced Forex and Interest Rate Risk Management” for our clients.** Our senior management is at the desk during market hours to review exposures daily, track the market every second and to catch all movements. We keep on monitoring the markets and well equipped with regular pricing and hedge executions.

Our Clients

Our clients are from large, medium and small industry houses across India and globally. An indicative list is as below

- **Clearing Corporation of India Limited (Apex body on derivatives clearing)**
- **Tata Group companies**
- **Reliance Group companies**
- **AV Birla Group companies**
- **Sterlite group companies**
- **JK group companies**
- **Hero Group companies**
- **Few Banks**
- **Many more medium and small companies.**
- **Funds**
- **International companies**

We have clients in the following industries:

Auto	Auto Components	BFSI
Chemicals	Infrastructure	IT&ES
Manufacturing	Pharmaceuticals	Power
Services	Textile	Renewables

QuantArt has conducted multiple trainings on “Fx Hedging & Interest Rate Risk Management” which has seen participants from corporate and banks, some of which are mentioned below -

Reliance Industries	Reserve Bank of India	Bloomberg	Hindalco
Tata Power	Tata Steel	Grasim	Idea
Sequoia Capital	KPMG	Mitsubishi Electric	General Motors
Indusind Bank	GE Shipping	Adani	Valvoline
Cargill	Glenmark Pharma	Exim Bank	Cadila
Renew Power	Cyient Ltd.	Basix Forex	HPCL-Mittal
Himadri	Graphite	West Coast Paper	Neterwala
SPIC	Syndicate Bank	Mercedes Benz	Schneider Electric

Few comments from our client's –

“Services of high professional quality, focused on the needs of group”

“The ETAs of replies are too fast, very pro-active and deadlines are followed”

“Advisors are easily accessible and are highly knowledgeable”

“Surpassed expectations, outstanding group of professionals”

“Daily morning reports, data, insights and hedge strategies are too useful”

“Total personal dedication, great efficiency, suitable solutions to all our needs, have no hesitation in recommending to others”

Forex & Interest Rate Advisory Services

End-to-End advisory related to hedging, risk management and valuations related to Foreign Exchange Market + Interest Rate Market including Debt. In addition, we add value through knowledge and capacity building.

Cost reduction on import payments through import hedge strategy

We will monitor your payments bill by bill date by date and will advise at the right time to hedge along with specific advice on hedge instruments, price and tenor. Objective will be to minimise your payment Fx rate compared to either an unhedged position or against forward premium.

Rate improvement in Exports through Export hedge strategy

We will be monitoring your order book, invoice book and projected annual exports on a daily basis. We will advise you on when to hedge, how much to hedge, hedge instrument, right rate, hedge tenor etc. We will help in execution of hedge and in any set up with the bank if required. Objective here is to achieve a high annual budget rate and also higher realisation rate compared to an unhedged position or forward rate. The inflows which come, whether to early utilise or convert at market will also be advised.

Loan interest rate reduction

We will be evaluating your working capital and term loan portfolio. On the working capital we will advise you when to go for PCFC, PCRE, EPC, FCTL, CC, CP etc and what rate you should get. On the term loan side we will advise you on ECB, FCTL, RTL and how you can manage Foreign currency risk or fixed floating risk so that overall you achieve cost savings.

Risk Reduction - Limit P&L volatility

We do not focus on savings alone but on risk adjusted savings. Hence our strategies are conservative and limit risks both economically and on accounting basis.

Ensure stability even if currency crisis happens or sharp move happens

There are times when your functional currency INR has moved sharply. Our strategies ensure that in such a scenario, you will never be caught off guard.

Implement discipline in forex management

We proactively reach out and ensure that there is required discipline in your forex management, and it is not put into backburner during stable times.

Educate and introduce options and swaps for hedging where required.

Using options help at times. However, option-based hedging should not be done without deep understanding. We educate and handhold companies in understanding vols surface, Greeks like delta, gamma and how to use the Greeks for decision making and monitoring.

Analysis and Evaluation of alternative strategies on following parameters

IRR or net effective interest cost with hedging, Break even analysis, Cost & Risk optimisation, Regulation, Accounting impact, Cash impact, value at risk impact.

Advising on specific hedging and risk management decisions of the company on regular basis

*Review every-day morning and afternoon by Senior advisors
Morning Customised advise
Interim advise during the day if required
Follow up during the day to ensure advise is implemented timely and not missed out.*

Strategizing and implementation of hedge execution leading to cost reduction

This will include getting the right price on hedge execution, Reduction of credit charge, Avoid trending mark-ups, Narrowing Bid-Offer spread, Using nuances of hedging to improve price, Unwind value calculation and negotiation strategy.

Providing regular market research, updates, data analysis, webinars, etc

*This will include-
Daily morning and evening update
Market Research Reports
Exclusive Reports
Webinars on Currency and related areas, Global markets, Industry movements etc
Analysis and assisting in presentations for Board and Investor meetings if any.*

Training and capability building

*This includes-
Regular query resolution and explanation of practical concepts
Structured Training to senior management on specific areas/complexities as required
Annual workshop with IIM Calcutta.*

Assisting companies in evaluation of documents

Hedge term sheets, Hedge covenants, Hedge deal confirmation, ISDA etc.

Help in arranging hedge bank if needed

*Support in counter party selection
Arranging hedge lines in favourable terms.
Selection of right bank based on hedge type.*

Implementation of sophisticated methodologies of risk management

Live real time MTM, Value at Risk, Risk control, MIS & Control set up.

MTM Valuation, Quarter End Valuation Certificate, CVA & DVA.

We provide third party valuation certificate of hedge instruments which is well accepted in the market and CVA, DVA calculations as well if required. Besides we add value to corporates by negotiating well for unwind values if required.

**Performance Reviews
Weekly Performance reviews**

*Meeting and Calls on regular basis for "day to day" operations
Performance review weekly on strategy and plan with the Managing Director/Director
Interim Assessment of performance based on the "objective to be achieved for Your Company"
Quarterly Assessment of performance based on the "objective to be achieved for Your Company."*

Global Best Practices in Treasury

*Updates to the client on Global best practices and assessment of the clients "Best practices and opportunities"
Support in working out the Risk Management Policy.*

Some ECB and Loan related hedging services:

Loan Hedging	<p>We support in evaluation of various hedge strategies like swaps, option-based hedging, short term hedging with rollover, tranche hedging, partial amount hedging etc. Within swaps also there are multiple variants and IRR calculation for each of the choices will be evaluated. Within option structures we will be evaluating plain calls, out of the money calls, spreads, staggered call spreads etc. Optimum hedge structure reduces interest cost</p>
Pricing of strategies and IRR calculation	<p>We will be involved in the pricing of strategies and the computation of IRR under various scenarios. There is deep understanding about credit charges and bank models which helps in reduction of cost.</p>
Loan Hedge Strategy Selection	<p>We will evaluate many strategies and will work with the company in the selection of the right strategy for the company keeping in mind the market dynamics and cost. We will also work with the team to bring about the comfort of the management with the chosen strategy</p>
Price Negotiations and Cost Savings	<p>We will set up the system for Negotiation of the pricing, strategy for getting effective pricing and support in negotiations if required. This will be an extremely important aspect as the possibility of leakages can be significant. Often banks charge high price on deal execution and considering we have worked in senior management positions in both Indian and Foreign banks we understand the psychology and the tricks of the trade. We help the companies in appropriate strategizing to get the right rate while dealing with the banks</p>
Notes and Presentations for Board	<p>We will support in preparation of Board Notes and presentations related to the hedging for the company</p>
Monitoring and Set Up of Hedges	<p>We will be responsible for closely monitoring and for setting up of the existing hedges</p>
Market Views	<p>We will be providing regular views on the markets on a regular basis as well as whenever required. We will provide views on interest rates, currency pairs, hedge costs etc</p>
Exclusive and Custom Reports	<p>We will provide comprehensive presentations and reports on topical issues of Global Markets and also on currency pairs involved for example- for the EURUSD and for USDINR</p>

Commodity Hedging Advisory Services

End-to-End advisory related to setting up of account, hedging, risk management, analysis, correlations and valuations related to Commodity Hedging. In addition, we add value through knowledge and capacity building.

Commodity hedge set up	Should you hedge your commodity risk	Commodity Risk management Policy
<p>To hedge commodity risk, the set for hedging is needed. We do end to end set up of commodity risk management and hedging desk. Once the set-up is done, you can hedge your risks in appropriate exchange or in OTC market</p>	<p>We evaluate in detail the price movements which impacts your company and the price movements in market traded instrument. We evaluate basis risk, correlation risk and appropriately advise how to hedge.</p> <p>Basis risk evaluation is one of the most important criteria for evaluation of commodity risk hedging. We have the deep Quant ability for that analysis.</p>	<p>We help you prepare commodity risk management policy. Commodity RMP is a comprehensive document which covers the exposure, objective, hedge rules, allowed instruments, limits, process, MIS formats and documentation process. The policy is also an RBI requirement if you want to hedge. The policy to be customised for every company with specific requirements.</p>
Commodity Hedge Strategy making	Training and Capability building related to commodity hedging	Using option-based commodity hedging
<p>We will make a hedge strategy for you that is geared to protect your risk and meet the objective. Strategy broadly covers time of hedge, quantum of hedge, instrument of hedge and cost of hedge.</p>	<p>We do conduct commodity hedging and risk management training for our clients and executives. It involves explanation of how hedging helps, how pricing is done, option structures and many more details on commodity hedging.</p>	<p>Options helps you to mitigate risk while allowing you to benefit from the favourable moves. Often in commodity risk management, options are extremely useful. We provide calculator, structures, pricing, strategy, and monitoring of option-based hedging. Option structures are also used to reduce cost of options.</p>
Daily review and recommendations	Hedge Execution support	Monitoring and Performance Management
<p>We review your exposures and hedges every day and evaluate alternative strategies which would be useful. We select the right strategy and recommend the same in a timely manner. During market hours our team will come back to you promptly whenever there is a market movement.</p>	<p>We support in hedge execution as well. We help you strategize for getting the right price and for smooth execution of hedges.</p> <p>We use calculators, our understanding of bid-offer and other nuances of the market to extract the right price for you.</p>	<p>We monitor your overall exposure, past deals, settlement details etc to ensure that policy is adhered, and strategy is aligned for achieving objective. We remain focused on objectives like achieving cost reduction, profitability enhancement or volatility elimination.</p>

Recent Prediction on USDINR movement by QuantArt

USDINR looked all set to move to the 76-level based on the financial market dynamics, political and economic realities and add to that the Delta variant doing the rounds in the UK, US and China.

Then came the surprise movement is USDINR went down to 73 level. However, we knew for sure this was a brief movement backed more by Powell-led Euphoria and the bond-related inflows.

On 1st September 2021, we wrote to our clients that USDINR will shortly bounce back to the 74 levels. We knew the share correction was just around the corner. And on 8th September 2021, USDINR was already being traded at 73.85 levels.

Our clients benefitted from this short window of the USDINR movement - We guided them on how to capitalize on this movement and yet protect their exposures in a better manner.

Case Studies

Our tenacious understanding and grip of the markets results in success stories for our clients each week. The success stories are much more explicitly seen especially more when there are sudden market moves. Others consider market movements as a stress and threat to profit. For the treasuries whom we advise, these movements are opportunities. We have been planning closely with different strategies and simulations awaiting market movement. We wait to pounce on such movements and convert them to opportunities. Two very recent case studies are below:

Case Study 1

A company part of a very reputed group availed EUR loans when EURINR was at 80.00. After that EUR appreciated significantly creating a bit of stress about open EUR loan positions. We helped company to work out a strategy which ensured sub 5.00% IRR including hedge cost and depreciation. We also helped the company to work with the auditor and get hedge effectiveness established on cash flow basis and thus neutralising accounting fluctuations. The solution here involved having a deep in the money Call spread staggered for various maturities and optimised for cost.

Case Study 2

An NBFC with large portfolio of ECBs in USD and EUR were running with 100% hedge using forwards and thus suffering heavy cost. We got the hedges changed in terms of structure and tenor after detailed analysis of cash flow and cost. The hedges were also amended keeping regulations and market outlook in mind. Resulted in significant savings in terms of per annum cost as well as from cash point of view.

Case Study 3

Recently when USDINR went to 72.40, one of our clients panicked and wanted to increase their hedges significantly. We assessed the global situation related to bond yields, convexity hedging, divergence of Fed stance and market rates. We were convinced that the additional hedging was not required even though the market trend looked otherwise. Our understanding of the market, experience and assessment told us so. We convinced in multiple calls to our client to avoid panicking and instead maintain the minimum band of hedge ratio and wait for a better level to increase the hedge. In couple of days 73.90 was traded for a short while and we could increase the company's hedge at 73.75 levels. This is just an example of how we prevented our client from taking a suboptimal decision which would have resulted in opportunity loss and hence would have been wrong.

Case Study 4

This case study is not for any specific clients but for all of our clients with export exposures. Recently, our exporter clients, enjoyed improved rate on exports to the tune of 105-200 paise. For example, an EUR Exporter received rate of 89.20 where market was trading at 87.20. For reference, 100 paise on USD 1 Million is INR 10 lakhs.

These are just four case studies. There are many many such case studies every quarter where are clients have done well.

Samples:

Sample Morning Updates

A crisp text only update, this is very popular amongst senior management. Brief and readable but backed by extensive research –

Global Markets and INR - Morning Brief Inbox x



Srinivas Puni
to me ▾

7:37 AM (9 hours ago) ☆ ↶ Reply ⋮

INR likely to open around 73.85/90

The combination of FOMC and Evergrande's fears has led to a resurgence in the dollar strength. FOMC was more hawkish in our view in relation to the timelines for the taper. They announced that a reduction in bond purchases is now appropriate. Powell indicated that the taper can start this year itself (announced in the Nov meeting) and end in mid-2022, which is a fairly aggressive timeline. The "dot plot" indicated that more FOMC members see a rate hike in 2022 than in the June meeting. The FOMC revised their inflation forecasts much higher for 2021 and beyond suggesting a hawkish stance. In all, it was a hawkish outcome and would influence markets negatively in coming weeks/months.

Dollar strengthened post the meeting. But USD was slightly weaker before the FOMC meeting on the Evergrande news. Evergrande stuck a deal on on-shore bond payments leading to hopes that the offshore payment could also be made and a crisis averted for now. Currently, EUR is trading at 1.1695, GBP at 1.3625 and JPY at 109.90. Equity markets were higher by 1% on easing Evergrande fears, despite the FOMC hawkishness.

Post FOMC, the US 10y fell by 4 bp indicating market view that the Fed is more hawkish and ahead of the curve and also due to the fact that the FOMC projects the rate cycle to end at much lower rates than the previous ones. The US yield curve is flattening fairly fast and at this rate can lead to inversion even before the rate hike cycle starts. In other markets, Brent surged higher and is now trading at 76.35 – a clear negative for the Rupee.

The Dollar is now in a position of strength. The Rupee is now marred by both Evergrande concerns and FOMC hawkishness. For now, equity markets are higher due to hopes around Evergrande, but it is a matter of time before the reality of a taper hits the markets and a wave of risk aversion sets in. USDINR is fundamentally now on the up move due to the confluence of so many factors. The first stop is the breaking of 74-74.15 resistance zone post which one can expect more momentum. Positive factors for the Rupee would be if the Evergrande issue is sorted out cleanly and markets completely ignore the FOMC taper in the short-term, and both these factors seem not that likely for now.

Sample Fx Data MIS

A comprehensive market data report in mail handy to be referred anytime (Formatting is better over mail) –

Spot date: 27-09-2021	USD BID	USD ASK	GBP	EUR	YEN	CHF	CAD	AUD	OTHER MARKETS		
Crosses			1.3651	1.1716	109.8400	0.9247	1.2724	0.7256	Major Stock Index		
Interbank (₹)	73.74	73.74	100.66	86.39	0.6713	79.74	57.95	53.51		Last	Change
FORWARD PREMIUM						NDF LEVELS - USDINR			BSE Sensex	59632.87	705.54
Maturity	USD BID	USD ASK	GBP	EUR	YEN	Month	Bid	Ask	Nifty 50	17747.50	200.85
27-10-2021	0.20	0.23	0.28	0.29	0.0020	1M	73.94	73.98	Nikkei 225	29639.00	-200.31
29-11-2021	0.44	0.47	0.61	0.62	0.0043	3M	74.41	74.48	Hang Seng	24430.73	209.19
27-12-2021	0.66	0.69	0.93	0.92	0.0064	6M	75.18	75.26	SSEC	3639.36	10.87
27-01-2022	0.92	0.95	1.30	1.31	0.0093	12M	76.97	77.07	Dow 30	34258.00	338.48
28-02-2022	1.18	1.21	1.66	1.69	0.0119				FTSE 100	0.00	0.00
28-03-2022	1.42	1.45	1.97	2.01	0.0142				CAC 40	0.00	0.00
6M % pa	3.86%	3.94%	3.92%	4.67%	4.25%				DAX	0.00	0.00
27-04-2022	1.81	1.84	2.50	2.53	0.0180				COMMODITIES		
27-05-2022	2.09	2.12	2.87	2.91	0.0207				Precious Metals		
27-06-2022	2.37	2.40	3.24	3.30	0.0235					Last	% Change
27-07-2022	2.66	2.69	3.61	3.69	0.0264				Gold	1763.26	-0.26
29-08-2022	2.97	3.00	4.01	4.11	0.0294				Silver	22.61	-0.26
27-09-2022	3.23	3.26	4.34	4.48	0.0321				Petroleum Products		
12M % pa	4.38%	4.42%	4.31%	5.19%	4.77%				IPE BRENT	76.35	0.21
Currencies	RUB	BRL	NOK	DKK	HKD	PHP	AED	BDT	Nymex CRUDE	72.39	0.22
Crosses	72.77	5.29	8.64	6.35	7.79	50.25	3.67	85.42	Metals 3MT		
Interbank (₹)	1.0134	13.9427	8.5395	11.6190	9.4718	1.4676	20.0773	0.8633	Copper	9286.00	3.46

Currencies	ZAR	SEK	MYR	SGD	IDR	KRW	CNY	THB
Crosses	14.72	8.67	4.19	1.35	14240.00	1174.95	6.47	33.43
Interbank (₹)	5.011	8.510	17.616	54.606	193.111	11.672	11.404	2.206
MARKETS AS ON PREVIOUS WORKING DAY								
Closing Prices	USD INR BID	USD INR ASK	GBP INR	EUR INR	YEN INR			
Spot	73.80	73.85	100.55	86.24	0.6721			
HIGH	73.93	73.94	101.12	86.84	0.6759			
LOW	73.65	73.66	100.43	86.21	0.6714			
LIBOR							POS (assuming 3mL)	USD IRS
Tenor	USD	GBP	EUR	YEN	CHF	Tenor	Quotes	Quotes
1M	0.08%	0.05%	-0.57%	-0.07%	-0.79%	2Y	4.53%	0.38%
3M	0.13%	0.08%	-0.56%	-0.07%	-0.75%	3Y	4.59%	0.64%
6M	0.15%	0.11%	-0.54%	-0.05%	-0.72%	5Y	4.67%	1.00%
12M	0.22%	0.26%	-0.49%	0.06%	-0.59%	7Y	4.84%	1.19%
Currency Futures	CROSS CURRENCY BASIS (3M)							
Currency Pair	Sep-21	Oct-21	Nov-21	TENOR	EUR/USD		USD/JPY	
USD/INR	73.92	74.11	74.36		BID	ASK	Bid	ASK
EUR/INR	86.75	87.03	87.30	1Y	-9.00	-7.00	-20.88	-12.88
GBP/INR	100.87	101.20	101.47	2Y	-9.63	-7.63	-24.63	-16.63
100 JPY/INR	67.47	67.64	67.89	3Y	-8.72	-4.72	-23.00	-19.00
				5Y	-7.63	-5.63	-28.00	-24.00
				7Y	-9.89	-5.89	-34.50	-26.50
				10Y	-10.13	-8.13	-35.63	-31.63
		USDIRS ag 3ML		MIFOR IRS		USD LIBOR 3-6 BASIS SPREAD		
Tenor	Bid	Ask	Bid	Ask	RATE			
1Y	0.15%	0.19%	3.52%	3.92%	2.50			
2Y	0.34%	0.38%	4.75%	4.87%	3.88			
3Y	0.60%	0.64%	5.13%	5.25%	8.25			
5Y	0.96%	1.00%	5.70%	5.80%	11.75			
7Y	1.16%	1.19%	6.00%	6.30%	13.25			
10Y	1.32%	1.36%	6.30%	6.60%	14.38			
Economic Data for the day								
Sr. No	Data			Period	Country	IST	Forecast / Actual	Previous
1	SNB Monetary Policy Assessment			-	CHINA	13:00	-	-
2	German Manufacturing PMI			SEP	GERMANY	13:00	61.5(F)	62.6
3	ECB Economic Bulletin			-	EUROZONE	13:30	-	-
4	Manufacturing PMI			SEP	EUROZONE	13:30	60.3(F)	61.4
5	Services PMI			SEP	EUROZONE	13:30	58.5(F)	59.0
6	Manufacturing PMI			SEP	UK	14:00	59(F)	60.3
7	ECB's Elderson Speaks			-	EUROZONE	15:15	-	-
8	German Buba Wuermeling Speaks			-	GERMANY	16:30	-	-
9	Initial Jobless Claims			-	US	18:00	320K(F)	332K

Aluminium	2935.00	3.13
Nickel	19221.00	2.08
Lead	2113.50	-0.96
Other Information		
USD/DXY	93.28	
US TREASURY YIELDS		
Tenor	Yield	Change
5 Years	0.8830%	-0.0781
10 Years	1.3311%	0.0000
30 Years	1.8297%	0.4219
FRA's		
Currency	6 x 12	
USD	0.25%	
JPY	0.04%	
INDIAN MONEY MARKET		
Securities	Yield	Change
GOI SEC 1Y	3.9280%	0.0000
GOI SEC 2Y	4.5220%	0.4700
GOI SEC 5Y	5.5850%	0.0330
GOI SEC 7Y	6.1400%	0.0000
GOI SEC 10Y	6.1260%	0.0900

Sample scenario analysis (A standard template uniquely developed by QuantArt for decision making on import hedge strategies. There are many such tools which QuantArt develops in-house)

Month	Oct-21	0.50	73.00	73.50	74.00	74.50	75.00	75.50	76.00	76.50	77.00	77.50	78.00	78.50
Sl. No.	Strategy name	Cost	Rate if 73	Rate if 73.5	Rate if 74	Rate if 74.5	Rate if 75	Rate if 75.5	Rate if 76	Rate if 76.5	Rate if 77	Rate if 77.5	Rate if 78	Rate if 78.5
1	Forward Premium	0.25	↓ 73.94	↔ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94	↑ 73.94
2	Plain Call strike at 73.8	0.53	↔ 73.53	↓ 74.03	↓ 74.33	↔ 74.33	↔ 74.33	↔ 74.33	↑ 74.33	↑ 74.33	↑ 74.33	↑ 74.33	↑ 74.33	↑ 74.33
3	Plain Call strike at 74.89	0.14	↑ 73.14	↑ 73.64	↔ 74.14	↓ 74.64	↓ 75.03	↓ 75.03	↓ 75.03	↔ 75.03	↔ 75.03	↔ 75.03	↔ 75.03	↔ 75.03
4	Plain Call strike at 74.5	0.23	↑ 73.23	↑ 73.73	↔ 74.23	↓ 74.73	↓ 74.73	↓ 74.73	↔ 74.73	↑ 74.73	↑ 74.73	↑ 74.73	↑ 74.73	↑ 74.73
5	Plain Call strike at 75	0.12	↑ 73.12	↑ 73.62	↑ 74.12	↓ 74.62	↓ 75.12	↓ 75.12	↓ 75.12	↔ 75.12	↔ 75.12	↔ 75.12	↔ 75.12	↔ 75.12
6	Plain Call strike at 73.5	0.73	↓ 73.73	↓ 74.23	↔ 74.23	↔ 74.23	↔ 74.23	↔ 74.23	↑ 74.23	↑ 74.23	↑ 74.23	↑ 74.23	↑ 74.23	↑ 74.23
7	Call Spread (Buy Call at 73.8/ Sell Call at 74.8)	0.39	↔ 73.39	↔ 73.89	↔ 74.19	↔ 74.19	↔ 74.39	↓ 74.89	↓ 75.39	↓ 75.89	↓ 76.39	↓ 76.89	↓ 77.39	↓ 77.89
8	Call Spread (Buy Call at 73.8/ Sell Call at 75.3)	0.46	↔ 73.46	↓ 73.96	↓ 74.26	↔ 74.26	↔ 74.26	↔ 74.46	↔ 74.96	↓ 75.46	↓ 75.96	↓ 76.46	↓ 76.96	↓ 77.46
9	Call Spread (Buy Call at 73.8/ Sell Call at 75.8)	0.50	↔ 73.50	↔ 74.00	↔ 74.30	↔ 74.30	↔ 74.30	↔ 74.50	↔ 75.00	↔ 75.50	↔ 76.00	↔ 76.50	↔ 77.00	↔ 77.00
10	Call Spread (Buy Call at 74.3/ Sell Call at 75.3)	0.22	↔ 73.22	↑ 73.72	↔ 74.22	↔ 74.52	↔ 74.52	↔ 74.72	↓ 75.22	↓ 75.72	↓ 76.22	↓ 76.72	↓ 77.22	↓ 77.72
11	Call Spread (Buy Call at 74.3/ Sell Call at 76.3)	0.28	↔ 73.28	↔ 73.78	↓ 74.28	↓ 74.58	↔ 74.58	↔ 74.58	↔ 74.78	↔ 74.78	↔ 75.28	↔ 75.78	↔ 76.28	↔ 76.78
12	Seagull (Buy Call at 73.8/Sell Call at 75.75/Sell Put at 72.8)	0.45	↔ 73.45	↔ 73.95	↔ 74.25	↔ 74.25	↔ 74.25	↔ 74.25	↔ 74.50	↔ 75.00	↔ 75.50	↔ 76.00	↔ 76.50	↔ 77.00
13	Seagull (Buy Call at 73.8/Sell Call at 75.75/Sell Put at 73.3)	0.37	↓ 73.67	↔ 73.87	↔ 74.17	↑ 74.17	↑ 74.17	↑ 74.17	↔ 74.42	↔ 74.92	↔ 75.42	↔ 75.92	↔ 76.42	↔ 76.92
14	Seagull (Buy Call at 73.8/Sell Call at 75.75/Sell Put at 73.55)	0.31	↓ 73.86	↔ 73.86	↑ 74.11	↑ 74.11	↑ 74.11	↑ 74.11	↔ 74.36	↔ 74.86	↔ 75.36	↔ 75.86	↔ 76.36	↔ 76.86
15	Seagull (Buy Call at 73.8/Sell Call at 75.25/Sell Put at 72.8)	0.40	↔ 73.40	↔ 73.90	↔ 74.20	↔ 74.20	↔ 74.20	↔ 74.45	↔ 74.95	↓ 75.45	↓ 75.95	↓ 76.45	↓ 76.95	↓ 77.45
16	Seagull (Buy Call at 73.8/Sell Call at 75.25/Sell Put at 73.3)	0.33	↔ 73.63	↔ 73.83	↑ 74.13	↑ 74.13	↑ 74.13	↔ 74.38	↔ 74.88	↔ 75.38	↔ 75.88	↔ 76.38	↔ 76.88	↔ 77.38
17	Seagull (Buy Call at 73.8/Sell Call at 75.25/Sell Put at 73.55)	0.27	↓ 73.82	↔ 73.82	↔ 74.07	↔ 74.07	↔ 74.07	↔ 74.32	↔ 74.82	↔ 75.32	↔ 75.82	↔ 76.32	↔ 76.82	↔ 77.32
18	Seagull (Buy Call at 73.8/Sell Call at 74.75/Sell Put at 72.8)	0.33	↔ 73.33	↓ 73.83	↔ 74.13	↔ 74.13	↔ 74.38	↓ 74.88	↔ 75.38	↓ 75.88	↔ 76.38	↓ 76.88	↓ 77.38	↓ 77.88
19	Seagull (Buy Call at 73.8/Sell Call at 74.75/Sell Put at 73.3)	0.25	↔ 73.55	↔ 73.75	↔ 74.05	↔ 74.05	↔ 74.30	↓ 74.80	↔ 75.30	↓ 75.80	↔ 76.30	↔ 76.80	↓ 77.30	↓ 77.80
20	Seagull (Buy Call at 73.8/Sell Call at 74.75/Sell Put at 73.55)	0.19	↔ 73.74	↔ 73.74	↑ 73.99	↑ 73.99	↔ 74.24	↔ 74.74	↔ 75.24	↓ 75.74	↔ 76.24	↓ 76.74	↓ 77.24	↓ 77.74
21	Seagull (Buy Call at 74.05/Sell Call at 75.05/Sell Put at 73.05)	0.21	↔ 73.26	↔ 73.71	↔ 74.21	↔ 74.26	↔ 74.26	↔ 74.71	↔ 75.21	↓ 75.71	↔ 76.21	↓ 76.71	↓ 77.21	↓ 77.71
22	Seagull (Buy Call at 74.05/Sell Call at 75.05/Sell Put at 73.3)	0.17	↔ 73.47	↔ 73.67	↔ 74.17	↔ 74.22	↔ 74.22	↔ 74.67	↔ 75.17	↔ 75.67	↔ 76.17	↔ 76.67	↔ 77.17	↔ 77.67
23	Seagull (Buy Call at 74.3/Sell Call at 75.3/Sell Put at 73.3)	0.10	↔ 73.40	↑ 73.60	↔ 74.10	↔ 74.40	↔ 74.40	↔ 74.60	↔ 75.10	↔ 75.60	↔ 76.10	↔ 76.60	↔ 77.10	↔ 77.60
24	Seagull (Buy Call at 74.3/Sell Call at 76.3/Sell Put at 73.3)	0.16	↔ 73.46	↔ 73.66	↓ 74.16	↓ 74.46	↔ 74.46	↔ 74.46	↑ 74.46	↑ 74.66	↔ 75.16	↔ 75.66	↔ 76.16	↔ 76.66
25	Seagull (Buy Call at 74.89/Sell Call at 76/Sell Put at 72.8)	0.06	↑ 73.06	↑ 73.56	↔ 74.06	↓ 74.56	↓ 74.95	↓ 74.95	↔ 74.95	↔ 75.45	↔ 75.95	↔ 76.45	↔ 76.95	↔ 77.45
26	Capped Forward (73.8 to 75.5)	0.20	↓ 74.00	↔ 74.00	↔ 74.00	↑ 74.00	↑ 74.00	↑ 74.00	↑ 74.50	↔ 75.00	↔ 75.50	↔ 76.00	↔ 76.50	↔ 77.00
27	Capped Forward (73.8 to 76)	0.23	↓ 74.03	↔ 74.03	↔ 74.03	↑ 74.03	↑ 74.03	↑ 74.03	↑ 74.03	↑ 74.53	↔ 75.03	↔ 75.53	↔ 76.03	↔ 76.53
28	Seagull (Buy Call at 74.89/Sell Call at 76/Sell Put at 73.8)	-0.16	↔ 73.64	↑ 73.64	↔ 73.84	↔ 74.34	↔ 74.73	↔ 74.73	↔ 74.73	↔ 75.23	↔ 75.73	↔ 76.23	↔ 76.73	↔ 77.23
29	Seagull (Buy Call at 74.3/Sell Call at 75.3/Sell Put at 73.8)	-0.05	↓ 73.75	↔ 73.75	↔ 73.95	↔ 74.25	↔ 74.25	↑ 74.45	↔ 74.95	↔ 75.45	↔ 75.95	↔ 76.45	↔ 76.95	↔ 77.45
30	Capped Forward (73.8 to 74.55)	0.05	↓ 73.85	↓ 73.85	↑ 73.85	↑ 73.85	↔ 74.30	↓ 74.80	↔ 75.30	↓ 75.80	↔ 76.30	↓ 76.80	↓ 77.30	↓ 77.80
31	Range Forward (Buy Call at 74.3/Sell Put at 73)	0.23	↑ 73.23	↔ 73.73	↓ 74.23	↓ 74.53	↔ 74.53	↔ 74.53	↑ 74.53	↑ 74.53	↔ 74.53	↔ 74.53	↔ 74.53	↔ 74.53
32	Range Forward (Buy Call at 74.9/Sell Put at 72.8)	0.09	↑ 73.09	↑ 73.59	↔ 74.09	↓ 74.59	↓ 74.99	↓ 74.99	↔ 74.99	↔ 74.99	↔ 74.99	↔ 74.99	↔ 74.99	↔ 74.99
33	Range Forward (Buy Call at 74.5/Sell Put at 73)	0.16	↑ 73.16	↔ 73.66	↓ 74.16	↓ 74.66	↔ 74.66	↔ 74.66	↔ 74.66	↑ 74.66	↑ 74.66	↔ 74.66	↔ 74.66	↔ 74.66

Some sample slides evaluating ECB –

Full Tenor – 3 years

Sl. No	Product	Cost p.a.	Upfront cost (INR cr)	App/Dep p.a.	-3.00%	-1.00%	0.00%	1.00%	3.00%	5.00%	7.00%
1	Plain call strike 85.00	6.45%	17.30	Effective hedge cost	4.37%	6.11%	7.00%	7.00%	7.00%	7.00%	7.00%
2	Plain call strike 96.00	2.25%	6.00		-0.44%	1.45%	2.41%	3.37%	5.31%	7.25%	8.17%
3	Call Spread (85 – 95)	2.20%	5.80		-0.50%	1.39%	2.35%	2.35%	3.22%	5.03%	7.03%
4	Call Spread (85 – 100)	2.95%	7.90		0.35%	2.22%	3.16%	3.16%	3.47%	4.98%	6.87%
5	Call Spread (82.3 – 95)	2.85%	7.50		0.19%	1.93%	2.26%	2.26%	3.14%	4.97%	6.98%
6	POS	5.96%			6.06%	6.06%	6.06%	6.06%	6.06%	6.06%	6.06%

- Call spread of 85.00 to 95.00 looks good
 - Lower % cost as well as lower upfront premium
 - Decent protection to start
- Plain call strike 96.00 is also a good choice, worst case is protected
- Clearly not suggesting POS since too expensive
- Not suggesting plain option at spot since too expensive

One-year hedge and rollover strategy

Sl. No	Product	Cost p.a.	Upfront cost (INR cr)	App/Dep p.a.	-3.00%	-1.00%	0.00%	1.00%	3.00%	5.00%	7.00%
1	Plain call strike 85.00	6.65%	4.90	Effective hedge cost	4.00%	6.04%	7.06%	7.06%	7.06%	7.06%	7.06%
2	Plain call strike 89.00	3.75%	2.80		0.91%	2.93%	3.94%	4.97%	7.03%	8.94%	8.94%
3	Plain call strike 92.00	2.40%	1.80		-0.51%	1.50%	2.51%	3.53%	5.58%	7.66%	9.77%
4	Call Spread (85 – 90)	3.85%	2.90		1.02%	3.03%	4.05%	4.05%	4.05%	4.05%	5.25%
5	POS	4.89%			4.97%	4.97%	4.97%	4.97%	4.97%	4.97%	4.97%

- Hedge for 1 year and rollover can be good strategy when credit lines for longer tenor is not available.
 - Upfront cost is also when paid for one year
 - Ideally any bank will do this hedge. Bank has no need for credit lines.
- Strike of 89.00 or 92.00 are low cost but spot to strike risk is open. Like 85.00 to 89.00 is open risk
- Call spread for shorter tenor doesn't work well. high chance of breaching the upper level.
- Plain call 85.00 is also good but cost is on the higher side.
- Plain call strike 89.00 is recommended.
 - Premium is low and reasonable
 - Can be paid upfront and done with any bank (widen the bank choice)
 - We can monitor the MTM and at appropriate time if opportunity arises (like EURINR coming to 81.00)

Hedge Decision framework



Hedge Cost for 3Y Maturity 3.15% pa fixed loan

Strategy	Plain Call at spot	Plain Call at Spot+10	call spread Spot – Spot+10	Fully hedged	Any other hedge
Hedge Cost p.a.	5.25%	1.83%	3.67%	8.06%	
USDINR Scenario	Net IRR				
2.0% p.a. Appreciation	6.73%	3.10%	5.00%	8.34%	
0.0% p.a. Appreciation	8.71%	5.10%	7.04%	8.34%	
2.0% p.a. Depreciation	8.71%	7.20%	7.04%	8.34%	
4.0% p.a. Depreciation	8.71%	9.30%	7.04%	8.34%	
6.0% p.a. Depreciation	8.71%	9.50%	9.09%	8.34%	

Long Term USD Loan Option Strategies



Spot Ref: 73.90, Tenor - 3 years				Spot Ref: 73.90, Tenor - 5 years			
Sl. No.	Strategy name	Cost	Annualized %	Sl. No.	Strategy name	Cost	Annualized %
1	Forward Premium	10.31	4.33%	1	Forward Premium	18.8	4.43%
2	Plain Call strike at 73.9	9.47	4.68%	2	Plain Call strike at 73.9	14.8	4.72%
3	Plain Call strike at 84	2.85	1.41%	3	Plain Call strike at 92.5	3.49	1.11%
4	Call Spread (Buy Call at 73.9/ Sell Call at 79)	3.87	1.91%	4	Call Spread (Buy Call at 73.9/ Sell Call at 82)	5.54	1.77%
5	Call Spread (Buy Call at 73.9/ Sell Call at 81)	5.1	2.52%	5	Call Spread (Buy Call at 73.9/ Sell Call at 84)	6.88	2.19%
6	Call Spread (Buy Call at 73.9/ Sell Call at 84)	6.67	3.29%	6	Call Spread (Buy Call at 73.9/ Sell Call at 86)	8.16	2.60%
7	Capped Forward (73.9 to 79)	3.28	1.62%	7	Call Spread (Buy Call at 73.9/ Sell Call at 89)	9.75	3.11%
8	Capped Forward (73.9 to 81)	4.51	2.23%	8	Capped Forward (73.9 to 82)	4.93	1.57%
9	Capped Forward (73.9 to 84)	6.08	3.00%	9	Capped Forward (73.9 to 84)	6.27	2.00%

Considerations



<ol style="list-style-type: none"> Rupess equivalent rate <ol style="list-style-type: none"> Frequency Fixed vs floating IRR Day count - standard Holiday conventions <ol style="list-style-type: none"> Labor fixing Settlements Stub Basis - Libor basis Basis - Currency basis 	<ol style="list-style-type: none"> IRS, COS, POS, CCS <ol style="list-style-type: none"> Standard IRS curve <ol style="list-style-type: none"> Semi bond 3M annualised money Fixed – fixed CCS Indian IRS - OIS, INBMK EURIRS CCS with fixed leg in FC Staggered IRS Forward starting CCS - Begin and end exchange POS vs Forward 	<ul style="list-style-type: none"> Choice of LIBOR – 1m 3m or 6m? Choice of currency – EUR, JPY or USD? - currency basis and LIBOR floor Hedge decision based on three considerations <ul style="list-style-type: none"> Cost of hedging vs protection achieved Accounting cost vs economic cost – IndAs minimizes this distinction Cash flow impact of hedging – forwards versus swaps, options with deferred premium versus forwards Bank limits for derivative trades – for long tenors <ul style="list-style-type: none"> Tend to be primarily consortium banks Pricing challenges – long term transaction costs and credit charges Accounting treatment of hedges (especially option hedges) under IndAs <ul style="list-style-type: none"> MTM accounting versus amortized cost Hedge ineffectiveness of options – but lower mtm volatility
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Tenor Wise – Full Hedge ECB Cost

	1Y	2Y	3Y	4Y	5Y	7Y	10Y
IRS	1.68%	1.87%	2.12%	2.31%	2.45%	2.64%	2.81%
POS	4.43%	4.50%	4.54%	4.54%	4.63%	4.83%	4.79%
COS	1.49%	1.71%	2.08%	2.37%	2.60%	2.98%	3.43%
CCS	5.93%	6.21%	6.62%	6.90%	7.23%	7.80%	8.22%
**Assumed USD 3M Libor + 1.5% Spread							

Sample recent QuantArt Research Topics presented as Webinar/ Research Report

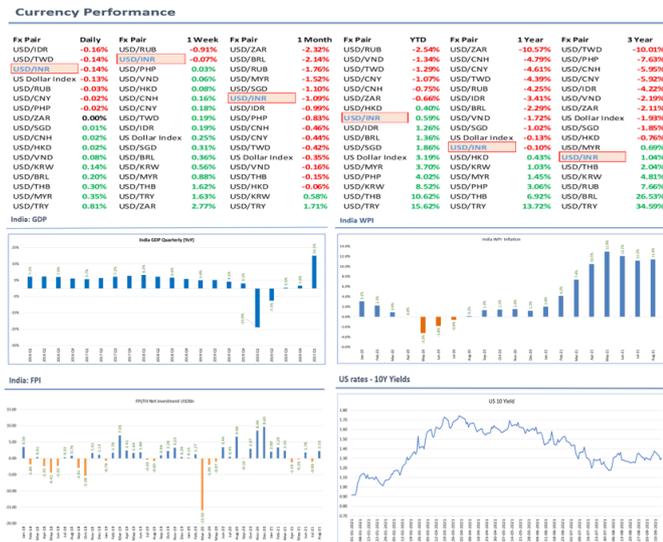
Factors driving USDINR and Outlook - 1



Deep Dive in US Bond yields & impact on USDINR



Factors driving USDINR and Outlook - 2



Training: Gold Standard, Money printing & Future

Gold Standard

- Gold standard was existing pre world war but collapsed during world war
- US didn't surrender gold standard during world war I and some economists blame gold standard or great depression
- Post world war there was attempt for all countries to come together and have unified agreement

Bretton woods

- First fully negotiated multi country financial agreement
- 730 delegates from 44 countries attended
- All exchange rates pegged to dollar and dollar pegged to gold. USD 35 per ounce
- Why USD - because US owned 2/3rd of global gold at that time and they insisted
- IMF to lend to bridge temporary imbalances
- Initially USD was in short supply as US ran huge trade deficits
- But with war and spending by 1970 - USD was flush and gold backing was only 22%
- on 15th August 1971 - US unilaterally called off the gold peg and made USD a fiat currency
- Smithsonian agreement in December US agreed to peg at USD 38 per ounce and other countries decided to appreciate their currency. The peg could not be sustained and eventually every country floated their own currency leading to collapse of Bretton woods system and emergence of fiat currency

Many believe gold standard will come back but money printing has gone to such a recklessness that going back to gold standard will require great depression II - globally.

Few Economic Indicators and what they mean

INDICATORS	WHAT THEY MEAN
US Inflation	US Core CPI increases, Fed is likely to take a hawkish stance which will tighten the liquidity. Also dollar will strengthen and a risk off environment is built, depreciating rupee and even equity markets will be stressed because of higher borrowing costs.
US Employment	Jobs Claims -measures the number of people who filed for unemployment insurance for the first time during the past week; Unemployment rate - Measured on a monthly basis, in August 2021 it was at 5.21%, Non-farm payroll -people employed during the prior month excluding workers in the farming industry (has been exceeding forecast for the last two months)
US GDP	US GDP expectations serves as a major indicator of equity market performance. A higher growth expectation in US will diverge funds from emerging markets.
US Trade Deficit	An extended trade deficit can adversely impact a country's economy and its stock markets. During a trade deficit, USD should typically depreciate but it has managed to strengthen driven by other factors (Reserve currency status).
Building Permits	Building permits measures the change in the number of new building permits issued by the government. Key indicator in projecting future housing starts. (Up by 2.60% in July)
Housing starts	It is a leading indicator that reflects the number of privately owned new houses on which construction has been started in a given period. It dropped to a six month low in Feb as severe cold gripped many parts of country. Temporary setback that remains supported by extremely lean inventories amid strong demand for larger homes.
PMI	Based on data compiled from monthly replies to questions asked of purchasing & supply executives in over 400 industrial companies across US. A reading that is stronger than forecast is bullish for the USD and vice versa.
ZEW	It is simple sentiment indicator created out of aggregation of sentiments of nearly 350 economists on the economic future of Germany in the medium term. A positive value would indicate growth in medium term and is a strong support for equity markets and DEM.
IFO	IFO Business Climate Survey is a leading indicator of German economic activity, gauging the country's business environment and expectations on a monthly basis.

Some prices to track

INDICATORS	WHAT THEY MEAN
DOW Futures & SGX Nifty	Futures contracts trade based on the values of stock markets benchmark indexes they represent. If Dow futures are trending downward all morning, it is likely that stock prices on US exchanges will move lower when trading opens for the day.
US Bond Yields	Higher bond yields make US Dollar more attractive. Depending on the circumstance, a higher yield may be good (when yields increase as a result of better growth expectations) or bad (when yields increase as a result of higher inflation) for the equity markets.
US 10Y-2Y spread	Steep rate hike signal. Wider spread to bring dollar strength. A 10-2 treasury spread that approaches 0 signifies a "flattening" yield curve. A negative 10-2 yield spread has historically been viewed as a precursor to a recessionary period.
VIX	A higher value of VIX indicates higher volatility expectations. Often a precursor to chaos
Dollar Index	Measures the value of the USD relative to six major currencies. Current around the 93.25 levels.
Crude	Higher prices → stronger global economy → risk on → INR appreciation but higher CAD so INR Negative too
Gold, Base Metals	Price increase in Base Metals Positive - risk on - Dollar weakness. But concerning too.
Others like Bitcoin, Tesla, GameStop	Risk signals about when the crash may come. Understand events like Bill Hwang case etc.

Sample MIS and Algorithm performance

Our sample screen shot of daily MIS is as below. The data can be tracked on live basis as well. A snapshot of the QuantArt Hedgenius software which can track data, track market rate and provide knowledge as required is shared.

USD Receivables - Exports

RECEIVABLES SPOT REF: 73.85													ITM	Export	Send Mail
	TOTAL	SEP'21	OCT'21	NOV'21	DEC'21	JAN'22	FEB'22	MAR'22	APR'22	MAY'22	JUN'22	JUL'22	AUG'22		
+ EXPOSURE (MN)	210.00	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50		
+ HEDGE (MN)	134.30	1.70	6.50	8.25	14.55	16.60	16.70	21.00	6.50	11.00	11.00	11.50	9.00		
👁️ OPEN (MN)	75.70	15.80	11.00	9.25	2.95	0.90	0.80	-3.50	11.00	6.50	6.50	6.00	8.50		
👁️ HEDGE RATIO	64%	10%	37%	47%	83%	95%	95%	120%	37%	63%	63%	66%	51%		
👁️ HEDGE RATE	76.69	74.78	75.60	76.18	75.95	76.24	76.68	76.44	76.85	76.91	77.40	78.03	78.06		
👁️ B. MARK RATE	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00		
👁️ FWD FOR OPEN POSITION	75.13	73.88	74.09	74.32	74.56	74.85	75.06	75.73	75.72	76.01	76.28	76.58	76.87		
👁️ MONTH END FORWARDS	75.29	73.88	74.09	74.32	74.56	74.82	75.06	75.32	75.72	76.01	76.28	76.56	76.86		
👁️ RATE IF ALL HEDGED	76.13	73.97	74.65	75.20	75.72	76.17	76.61	76.58	76.14	76.57	76.98	77.53	77.48		
👁️ G/L VS B. MARK	2377.19	-180.66	-61.50	34.56	125.36	204.19	280.97	275.97	199.20	275.23	347.05	443.00	433.82		
👁️ G/L VS MARKET	1783.71	15.55	97.16	151.71	199.81	251.17	266.34	243.77	71.25	96.05	119.75	165.50	105.65		

EUR – Receivables - Exports

RECEIVABLES SPOT REF: 86.40													ITM	Export	Send Mail
	TOTAL	SEP'21	OCT'21	NOV'21	DEC'21	JAN'22	FEB'22	MAR'22	APR'22	MAY'22	JUN'22	JUL'22	AUG'22		
+ EXPOSURE (MN)	6.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		
+ HEDGE (MN)	0.70	0.50	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
👁️ OPEN (MN)	5.30	0.00	0.30	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		
👁️ HEDGE RATIO	12%	100%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
👁️ HEDGE RATE	91.00	91.94	88.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
👁️ B. MARK RATE	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00		
👁️ FWD FOR OPEN POSITION	88.60	86.36	86.42	87.02	87.37	87.76	88.07	88.45	88.97	89.36	89.73	90.13	90.52		
👁️ MONTH END FORWARDS	88.37	86.43	86.72	87.02	87.37	87.76	88.07	88.45	88.95	89.36	89.73	90.13	90.52		
👁️ RATE IF ALL HEDGED	88.88	91.94	87.30	87.02	87.37	87.76	88.07	88.45	88.97	89.36	89.73	90.13	90.52		
👁️ G/L VS B. MARK	-7.00	14.70	-8.51	-9.93	-8.14	-6.21	-4.67	-2.74	-0.17	1.79	3.66	5.63	7.60		
👁️ G/L VS MARKET	31.90	27.85	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

In the Money Contracts List

Sl/No	Bank Name	Fxpair	Instrument	Amount	Delivery Date	Forward Rate	Spot Rate	Cancellation Prem	Cancellation Rate	G/L (in Paisa)	G/L (in INR)
1	SBI	USD/INR	Forwards	250,000.00	15/07/2022	78.06	73.85	2.61	76.46	1.61	401,250.00
2	SBI	USD/INR	Forwards	250,000.00	06/07/2022	77.93	73.85	2.52	76.37	1.56	390,625.00
3	SBI	USD/INR	Forwards	250,000.00	30/06/2022	77.62	73.85	2.46	76.31	1.31	327,500.00
4	SBI	USD/INR	Forwards	250,000.00	05/07/2022	77.66	73.85	2.51	76.36	1.30	325,625.00
5	SBI	USD/INR	Forwards	300,000.00	17/06/2022	77.42	73.85	2.34	76.19	1.23	369,000.00
6	SBI	USD/INR	Forwards	250,000.00	28/06/2022	77.48	73.85	2.44	76.29	1.19	296,875.00
7	HDFC	USD/INR	Forwards	200,000.00	15/06/2022	77.31	73.85	2.32	76.17	1.14	227,500.00
8	SBI	USD/INR	Forwards	250,000.00	27/06/2022	77.41	73.85	2.43	76.28	1.13	281,875.00
9	SBI	USD/INR	Forwards	250,000.00	20/06/2022	77.34	73.85	2.37	76.22	1.12	280,625.00
10	SBI	USD/INR	Forwards	250,000.00	20/06/2022	77.30	73.85	2.37	76.22	1.08	270,625.00
11	HDFC	USD/INR	Forwards	250,000.00	15/06/2022	77.22	73.85	2.32	76.17	1.05	261,875.00
12	SBI	USD/INR	Forwards	250,000.00	03/08/2022	77.59	73.85	2.79	76.64	0.96	238,750.00
13	HDFC	USD/INR	Forwards	250,000.00	15/06/2022	77.02	73.85	2.32	76.17	0.85	211,875.00
14	HDFC	USD/INR	Forwards	250,000.00	15/06/2022	76.92	73.85	2.32	76.17	0.75	186,875.00
15	HDFC	USD/INR	Forwards	250,000.00	21/09/2022	77.00	73.85	3.23	77.08	-0.08	-19,375.00

Hedgenius - Software Dashboard

Dashboard
MIS ▾
Data Management ▾
Market Analytics
🔍 MAYANK ▾

EUR/INR **86.4320**

🟢 08:40:51 | Currency +0.1890 (+0.22%)

GBP/INR **101.076**

🟢 08:40:53 | Currency +0.523 (+0.52%)

USD/INR **73.681**

🟢 08:40:41 | Currency -0.118 (-0.16%)

🔍 Search eg: spot, premium, yields etc

Watchlist

USDINR 1Y FORWARD RATE	325.00 76.9175	328.00 76.9575
USDINR 2Y FORWARD RATE	664.75 80.3150	693.75 80.6150
USDINR 3Y FORWARD RATE	1043.50 84.1025	1089.00 84.5675

ABC LTD. | PAYABLES | SR: 73.85 Go To MIS

	TOTAL	
+	EXPOSURE (MN)	11.00
+	HEDGE (MN)	2.00
🔍	OPEN (MN)	9.00
🔍	HEDGE RATIO	18%
🔍	HEDGE RATE	71.57
🔍	B. MARK RATE	71.93
🔍	FWD FOR OPEN POSITION	73.84
🔍	MONTH END FORWARDS	73.85
🔍	RATE IF ALL HEDGED	73.43
🔍	G/L VS B. MARK (in lacs)	-164.55
🔍	G/L VS MARKET (in lacs)	45.35

MARKET ANALYTICS

Search article using tags keyword...

Hedge Accounting - IndAS

Hedge Accounting - IndAS
By - QuantArt

Fx Risk Management - Policy and best practices

Fx Risk Management - Policy ...
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ECB hedging instruments - Swaps

ECB hedging instruments - Sw...

Fx Hedging - Using Options Smartly

Fx Hedging - using options s...

Senior Management

QuantArt's senior team is as follows –



Samir Lodha

Samir founded QuantArt in 2012 January. He is an MBA from IIM Calcutta with around 20 years in senior positions with Foreign exchange treasuries of JP Morgan (Executive Director), HSBC (Associate Director) and ICICI Bank wherein he advised large companies across India on risk management and hedging of foreign exchange and interest rates exposures. He has sound experience and understanding of global markets, market economics, hedging strategies, hedge algorithms, price calculation and risk-return optimization. In most of his organizations he was the top 5% of performers in his department.



Srinivas Puni

Srinivas is an MBA from IIM Bangalore having more than 15 years of experience in structuring forex and interest rates derivatives. He has worked with banks like JP Morgan, Standard Chartered, Yes Bank and Axis Bank in the past. Srinivas has in-depth understanding of the quantitative models behind derivative valuation and related CVA, DVA, FVA modelling. Srinivas conducts training on foreign exchange and risk management as well as advises specifically large clients. Srinivas's mathematical skills in derivatives are renowned in the industry.



Vinod Garg

Vinod is an MBA from IIM Lucknow with 20+ years' experience in treasuries in India and Hong Kong wherein he advised large companies and banks on risk management, markets and hedging. Prior to joining QuantArt, he held the positions of Executive Director in Goldman Sachs and BNP Paribas. Vinod has extensive skills in simplifying complex situation and convert the same into a hedge opportunity

One or more of the three Directors will be responsible for reviewing and assessing your daily exposure. We don't handover advisory to the middle or junior management.

Why QuantArt?



Please remember that selection of an advisor is similar to selection of a good doctor for complicated health matter. Now evaluate on following parameters -

1. Senior advisors in QuantArt are veterans in the field. They have trained 1000s of other experts and treasury executives. Even executives from other advisory firms (6 executives from 3 risk/Forex advisory firms) come to QuantArt for understanding.
2. Conservative, Matured and Right advise always - something which come from experience, intelligence and concern for clients. You don't want cowboy energy for managing risk.
3. Knowledge: QuantArt is way ahead of any other treasury advisors in terms of knowledge, understanding, deep analysis of market technicalities etc. We understand the convexity hedging, duration, basis, Greeks, Greeks of Greeks any many other parameters very well. However, we communicate the complicated matter in simple terms.
4. Hands on Senior advisor: To compare in medical terminology, senior advisor remembers the data very well and shares the concern. Your advisory is not delegated to junior advisor, though a four-member team works for every client.
5. We have the best of tools, calculators and algorithms. Our team is way ahead of other advisors in terms of mathematical understanding and abilities.
6. Complete Service: There is nothing which is required for treasury management, but we do not provide. Everything important will be provided to you. However, we will not trouble with useless chatters.
7. Constant monitoring with data: Our senior advisors constantly monitors the market and provides you timely advise along with your data. We evaluate 3 times a day - if anything to be done for the client and also whenever market moves.
8. Regular proactive reviews are done for Fx to align objectives, look at the gain/ loss statements in details and to sort out operational hurdles. Ideas as well outlooks are also discussed during these review meetings.
9. Daily super precise update & regular detailed presentation on markets. In addition, our managing director sends critical updates on WhatsApp.
10. Regular webinar, training, workshops, capacity building etc. Almost every week we have some interactive knowledge session. Clients participate comfortably and ask questions there.
11. Extensive Quantitative research – Starting from Algorithm to VaR and various historical correlation studies along with lead/ lag adjustments provide us with great insights. We also use all econometric parameters for projection.

Media Coverage and Industry Memberships

Media Coverage

QuantArt has widely been covered by media, our comments and views appear frequently on following media



Magazine Coverage

<p>LEADERSHIP TALKS</p> <p>SAMIR LODHA: EMPOWERING BUSINESSES WITH SMART FOREX RISK MANAGEMENT SERVICES THROUGH QUANTART</p> <p>A business leader is someone who converts a dream to reality-while doing so he inspires and motivates the people he comes across with. Leaders think of innovative ways to accelerate growth of the organisation by creating visions, values and blue-prints aligned with the present and future times.</p> <p>Mr. Samir Lodha, founder at QuantArt is a leader who is bringing about transformation in the field of foreign exchange and risk management with the help of his vast experience and team of expertise ex-investment bankers.</p> <p>In a talk with him, let's discover more about QuantArt and his journey till now.</p> <ul style="list-style-type: none"> • Brief us about the company. <p>QuantArt is a fast-growing niche foreign exchange and risk management advisory firm run by ex-investment bankers. The organisation brings tangible value addition(s) like cost reduction, risk mitigation, profitability enhancement, knowledge, expertise, and ideas to the corporates. QuantArt is trusted by large banks, by apex bodies like Clearing Corporation of India, and by corporates from large groups like Tata, Reliance, Vedanta, AV Birla, Hero, JK, RPG, and many more. Trust by such large treasuries certifies the value proposition, cutting edge knowledge and</p>	
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Industry Memberships

Membership and Registration

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Scope of work:

We will provide a complete end-to-end Fx hedge advisory services.

Commercial Terms

- Fixed Fee of INR “X” + GST per month, payable monthly.
- Start Date of Assignment: To be decided.
- The payment shall be done within 10 days of invoicing.

Other Engagement terms

1. Confidential Information and Data:

A. Confidentiality Obligation: Each party (“the disclosing party”) is likely to disclose information to the other party from time to time in the course of the provision of the Services, which is marked or designated as confidential or proprietary at or prior to disclosure or which would appear to a reasonably prudent person to be confidential and/or proprietary in nature (“Confidential Information”). The party receiving the Confidential Information (“the receiving party”) will not divulge or communicate it to any person other than in connection with the provision of the Services or as otherwise provided for in this Agreement. This restriction does not apply to information which (i) the receiving party must by law or legal process disclose, (ii) is either already in the public domain or enters the public domain through no fault of the receiving party, (iii) which is available to the receiving party from a third party who, to the receiving party’s knowledge, is not under any non-disclosure obligation to the disclosing party, or (iv) is independently developed by the receiving party without reference to any Confidential Information of the disclosing party.

B. Permitted Use: Notwithstanding Section 1(A), we may include your name in our representative client list.

2. Independent Contractor: You agree that we are engaged to provide the Services pursuant to this Agreement as an independent contractor. Nothing in this Agreement should be construed to create a fiduciary, partnership, joint venture, agency or employer-employee relationship between the parties. We are not authorized to bind you in any respect whatsoever.

3. Governing Law and Forum: All issued hereunder shall be governed by and construed in accordance with the laws of India. Any dispute arising out of or relating to this Agreement or any SOW, shall be referred to and finally resolved by arbitration in Mumbai in accordance with the applicable rules and procedures under the Arbitration and Conciliation Act, 1996 for the time being in force at the commencement of the arbitration, which rules are deemed to be incorporated by reference in this clause. The language of the arbitration shall be English. The number of arbitrators shall be one.

4. Limitation of Liability: The aggregate liability of us and any officer, director or employee of ours (“QuantArt parties”) to you, your Affiliates, your officers, directors or employees or those of your Affiliates and any third party (including any benefit plan, its fiduciaries or any plan sponsor) for any and all Losses arising out of or relating to the provision of Services by any of the QuantArt Parties shall not exceed the Compensation received by us for the Services giving rise to such Loss. We shall have no liability for the acts or omissions of any third party (other than our subcontractors).

While we would provide all advisory and support related to regulatory compliance of the hedge, the final responsibility of compliance rests with the client. We would not be liable for lapses, if any, in regulatory compliance. We will not be liable for future market uncertainties or if the market movements are not as expected leading to loss to clients.

5. Termination: The contract can be terminated by either party with a written notice of one-month subject to a minimum tenor of 12 months.

For QuantArt Market Solutions Pvt. Ltd.

By:

Title:

ACCEPTED AND AGREED

For Company Name

By: _____

Name:

Title:

Date:

Annexure I: Covering some details on Trainings we conduct for our advisory clients

Training related topics:

Sl. No.	Module	Module Details
1	Option based hedging (covered over 2 sessions in excel sheet)	<ol style="list-style-type: none"> 1. Option basics. 2. Option structures - For exporters and importers + hedgers. 3. Making option strategies - considerations and ideas. 4. How to make structures, Intuitive pricing, Pros and Cons, Practical Issues, Regulations related to options.
2	Fx Option Pricing - I	<ol style="list-style-type: none"> 1. Black-Scholes-Merton framework of option pricing. 2. Inputs to the Black-Scholes formula. 3. Understanding the relationship between interest rates, spot, forward rates and option pricing. 4. Concept of volatility - vols surface, risk reversals, etc.
3	Fx Option Pricing - II	<ol style="list-style-type: none"> 1. USDINR option market. 2. Pricing USDINR options – discussion on the input parameters. 3. Option greek's –delta, gamma, vega and theta – how they affect the option MTM.
4	Fx Exotic Options - Indian context	<ol style="list-style-type: none"> 1. Fx Exotics - types, payoffs and structuring: <ol style="list-style-type: none"> a. <i>European digitals</i> b. <i>American digitals (touch options)</i> c. <i>Barrier options (KO, KI, RKO, RKI, etc.)</i> d. <i>Accumulators/ Faders</i> e. <i>Target redemption structures</i> f. <i>Asian options</i> g. <i>Forward start options (Ratchet/Clique)</i> h. <i>Basket options</i> i. <i>Structuring deals using the above options</i> 2. Dos and Don'ts. Opportunities and uses. Risk and Risk mitigation.
5	Interest Rate Exotics - Indian context	<ol style="list-style-type: none"> 1. Interest rate exotics – various structures used <ol style="list-style-type: none"> a. <i>Cap/Floor/Swaption</i> b. <i>Digital cap/floor</i> c. <i>Range accruals</i> d. <i>Spread range accruals</i> e. <i>Dual range accruals</i> f. <i>Bermudan swaptions</i> g. <i>Callable structures</i>

6	Interest Rate Swap Pricing - I	<ol style="list-style-type: none"> 1. Yields, Zero rates and forward rate 2. Swap curve and the concept of bootstrapping 3. Pricing and USD interest rate swap 4. Concept of Libor basis 5. Pricing INR swaps 6. Understanding the MIFOR curve 7. Hedging of INR swaps
7	Interest Rate Swap Pricing - II	<ol style="list-style-type: none"> 1. Market pricing of INR swaps – conventions, rollover cost, 3/6 basis and currency basis 2. Pricing LTFX – equivalence to swap pricing 3. Excel pricing of the following: IRS, CCS, POS, LTFX
8	Fx Economics & Global Financial Markets	<ol style="list-style-type: none"> 1. Brief history of Fx. Current Account, Trade Balance, Oil and Gold, 2. Remittances, Invisibles, Capital Account, FDI, Trade, Hot money 3. IIP, REER, Intervention, Hedge positioning. Inflation and Fx. 4. Global Monetary Policy, Quantitative Easing, Balance sheet easing, Dollar dynamics, Competition to Dollar 5. Global trade and investment currency, risk on risk off concepts, market themes, Multi Asset correlations
9	Fx - Regular Deals	<ol style="list-style-type: none"> 1. Making sense of terminologies – direct/indirect quotes, cash/tom/spot, cross exchange rates and bid/offer quotes etc. 2. FX forwards - Sell/Buy, Buy/Sell FX swaps and outright forwards. Calculating outright forward bid/offers. Cross forward rates 3. Fx forwards in Indian market. Booking and cancellation – calculating the MTM on cancellation. Rollover and early utilization of forward contracts - mechanics of rollover and the relevant pricing concepts 4. Understanding money market & forward premium along with interest rate parity.
10	Fx Risk Management - Policy and best practices	<ol style="list-style-type: none"> 1. Fx Risk management best practices & Policy. 2. How best treasuries work? - Checklist. 3. Risk identification and measurement – NOP, Hedge ratio, Static and dynamic hedging, Gross vs Net, Profit vs Cost 4. RBI regulations related to risk management and hedging. Past performance of various hedging methodologies. UFCE. 5. ISDA and ISDA Negotiation.
11	ECB hedging instruments - Swaps	<ol style="list-style-type: none"> 1. Swaps. Concept of FRA, interest rate and currency swaps. 2. Conventions and terminologies – LIBOR, day count conventions, holiday conventions, stub, etc. 3. CCS, POS, COS, IRS in Indian context along with examples. 4. Long term forwards and their equivalence to swaps.
12	ECB and Fx Loans and Hedging	<ol style="list-style-type: none"> 1. ECB funding, advantages and regulations. Evaluation of multiple ECB hedge strategies, current market spread, the right hedge strategy. 2. Pricing of strategies and computation of IRR under various strategies.

		3. Choose the right strategies with market dynamics & cost in mind, keeping other constraints managed.
13	Hedge Accounting – IndAS	<ol style="list-style-type: none"> 1. IndAS – Hedge Accounting. 2. Hedge effectiveness testing. 3. Accounting treatment of hedges: <ol style="list-style-type: none"> a. Forward contract b. Exports - revenue hedge vs cash flow hedge c. Imports - payable hedge vs cash flow hedge d. Option contract e. IRS/CCS 4. MTM and CVA DVA.

Other related topics:

Sl. No.	Module
1	USDINR Outlook & Export and Import Strategies
2	Commodity Hedging
3	Government Bond Investment
4	Budget Rate Target for Exporters & Importers
5	Forex Export Strategy for 2021-22: Problems and Solutions
6	FX Risk Management strategy
7	Many more related topics