



PAHLE INDIA FOUNDATION
FACILITATING POLICY CHANGE

Assessing the Impact of CTT on Gold Futures Market in India

September 2017



Nirupama Soundararajan and Arindam Goswami



Pahle India Foundation (PIF) is an FCRA certified, not for profit policy think tank, established in June 2013 by Dr. Rajiv Kumar, as a Section 8 company.

PIF's motto is "Facilitating Policy Change." The motto guides all our activities. At PIF, we undertake research and disseminate its findings to contribute to the necessary paradigm shift in development thinking and practices in India. PIF is committed to enriching the public discourse and also to influence policy formulation that will help India successfully complete its triple transition in economic, political and social fields.

Our aim is to emerge as a credible, trustworthy and neutral bridge between economic agents like firms, farmers and professionals on the one hand and policy makers on the other and to contribute to bringing the three principle stakeholders viz government, industry and academia on the same page and pulling in the same direction - a key condition for ensuring India's success in global markets. While reserving the flexibility for responding to changing ground realities in India and its external environment, initial focus of PIF's work will be on the following sectors/themes and countries/regions:

- Financial Sector
- Small and Medium Enterprises (SMEs)
- Defence Economics
- Trade

PIF currently has an analytically strong team of dedicated researchers who are self motivated. PIF's highly qualified team specialises in analyzing India's political economy and its engagement across verticals that are relatively underworked areas that will permit PIF to create a niche for itself in the research and think tank space in the country.

www.pahleindia.org

 facebook.com/pahleIndia

 [@pahleindia](https://twitter.com/pahleindia)

Tel: +91 11 41551498, 26519889



PAHLE INDIA FOUNDATION
FACILITATING POLICY CHANGE

Assessing the Impact of CTT on Gold Futures Market in India

September 2017

Authors

Nirupama Soundararajan and Arindam Goswami

For further information about this report, please contact:

Nirupama Soundararajan
Senior Fellow
Pahle India Foundation
Email: nirupama.soundararajan@pahleindia.org
Tel: +91 11 26516226



Foreword



Despite being one of the largest consumers of gold our country lacks an efficient gold ecosystem. The Indian gold market consists of several functional gaps, mainly significant variation in price and quality of gold across channels and points of sale. It is also a sector that consists of many participants, most of whom are MSMEs. Most of the jewellers prefer to import gold to meet their business needs, exposing them to price risks, exchange rate risks, and more recently policy risks. The absence of suitable risk mitigation measures puts immense pressure on MSMEs and affects productivity. This is the case for Indian jewellers, nearly 80 per cent of whom are MSMEs.

For any businessman trading in commodities, agriculture or non-agriculture, commodity exchanges have acted as a means to hedge risks. Commodity exchanges help in price discovery by removing price disparities, establishing quality control, help in hedging risks, and facilitating seamless integration with financial markets. The domestic gold futures market have performed these tasks for many years helping stakeholders in gold value chain to hedge against risks emanating from adverse price movements influenced by domestic as well as international factors.

In 2013-14, the then Union Finance Minister introduced a commodity transaction tax (CTT) on all non-agricultural commodity transactions. This decision was based on two assumptions. First, those trading in agricultural commodities do so because they want to hedge risks, and, second, those trading in non-agricultural commodities do so for speculative purposes alone. Thus trading in commodity derivatives is no different from security derivatives. Hence a 0.01 per cent CTT was introduced on all non-agricultural commodities, including gold. The same year that CTT was introduced the volumes of the gold futures market dropped by an unprecedented 50 per cent and they have never quite recovered. Market participants also dropped dramatically.

Since Pahle India Foundation has been working on gold and on MSMEs, we decided to undertake a study that would assess the economic impact of CTT on the gold futures market in terms of volumes of trade, number of unique traders, and revenue collection. This was done through an extensive primary survey of 500 market participants, of which 150 were erstwhile traders and the remaining 350 currently trading is gold futures.

The study resulted in three key findings. First, despite a decade long existence of domestic commodity exchanges, the number of traders on the commodity exchange is still low when compared to the size of the gems and jewellery trade in India. Implementation of CTT has only worsened the situation, forcing this number to dip further with the majority of traders exiting domestic exchanges to trade on international exchanges or in informal market. Second, CTT has resulted in market inefficiency due to substantial increase in premium and cost of transaction. Third, CTT has become a barrier to creation of a healthy gold ecosystem by restricting an efficient price discovery mechanism.

This study makes a number of recommendations on how to increase transaction volumes, deepen the market and attract new participants. It is however very clear that any beginning that has to be made should be with abolishing CTT on gold futures. To create an efficient gold ecosystem is an important objective for the country and one that cannot be achieved if the gold commodity market performs inefficiently. We hope that through this study we present more than adequate justification for abolishing CTT.

Thank you.

Ram Gopal Agarwala

Acknowledgement

This report is the result of extensive field work and numerous interviews. Without the help of many organisations and people, this report would not have been possible.

The authors would like to thank Subrata Bandyopadhyay, Ankur Tyagi, Apeksha Gogoi and their team at BRIEF for implementing the primary survey and in collation of the results.

The authors would also like to thank the various small and big jewellers, bullion dealers and commodity exchanges for meeting and sharing with us in detail their candid views around the debate on CTT and commodity trading on exchanges. We would also like to thank the various policymakers who spoke with us at length and shared their insights on the subject. The authors would like to thank Futures Industry Association (FIA) and Multi Commodity Exchange of India (MCX) for sharing secondary data and research inputs. These inputs helped us in giving this report its final form.

Last but not least, we would like to thank Mr. Anil Kumar from Pahle India Foundation for helping us with our meetings and formatting the report, and Mr. Naveen Jaiswal and his team from Genesis Printers for the design, layout and printing of the final report.



Content

List of Abbreviations.....	10
Executive Summary	11
1. Background	13
1.1 Introduction	13
1.2 Gold Monetisation in India	13
1.3 Price of Gold	14
1.4 Commodity Transaction Tax (CTT)	14
1.5 Objective of Study	15
2. Literature Review.....	16
2.1 History of Trading in Futures Contract	16
2.2 Major International Futures Exchanges	16
3. Review of Gold Futures Market in India.....	20
3.1 Commodity Futures Trade in India: Past and Present	20
3.2 Current Scenario of Gold Futures Market in India	21
3.3 Commodity Transaction Tax (CTT)	22
3.4 Impact of CTT on Gold Futures Market	23
4. Survey Results.....	30
4.1 Profile of Respondents	30
4.2 Benchmarking the Price of Gold	33
4.3 Countering Price Risks	34
4.4 Why Trade - Links between Business Cycle, Size, and Hedging Preferences	35
4.5 Cost of Transaction	40
4.6 Taking Delivery of Gold	42
5. Recommendations.....	47
5.1 Summary of Results	47
5.2 Recommendations	47

List of Tables

3.1	Types of Gold Futures Offered on MCX along with Their Volumes (In Lots) [2011 - 2015]	22
3.2	Break-up of Cost of Trading	25
3.3	Cost Comparison across Global Exchanges	26
3.4	Calculation showing Revenue to Government from Trade of Gold Futures	28
4.1	Cost of Transaction	40



List of Figures

3.1	Volume of Trade in the Last 10 Years (2007-2016)	23
3.2	Comparative Analysis of Volume of Gold Futures Traded on Different Exchanges in 2011-2015	24
4.1	Annual Turnover	30
4.2	Types of Outlets	32
4.3	Educational Qualification	31
4.4	Business Profile	32
4.5	Gold Business as a Percentage of Total Turnover	32
4.6	Reference for Fixing Price of Gold	33
4.7	Reference for Fixing Price of Gold by Turnover	34
4.8	Means of Hedging Price Risk (Multiple Responses)	34
4.9	Means of Hedging Price Risk (First Response)	35
4.10	Preference for Type of Gold Contract by Turnover	35
4.11	Preference for Duration of Contract by Turnover	36
4.12	Reasons for Starting Trade on Exchange (Multiple Responses)	37
4.13	Reasons for Trading <i>vis á vis</i> Educational Qualification	37
4.14	Purpose of Trading on Exchange	38
4.15	Reasons for Stopping Trade on Exchange (First Responses)	39
4.16	When Stopped Last Time Traded in (Last Month of Transaction)	39
4.17	Change in Cost of Transaction Compared to 2012-13	40
4.18	Reasons for Increase in Costs of Trading	41
4.19	Percentage Increase in Cost of Transaction Compared to 2012-13	41
4.20	What Would Induce Respondents to Trade Again/More	42
4.21	How Often Do You Hold a Contract to Maturity?	43
4.22	Whether Delivery was Taken on Last Trade	43
4.23	Reasons for Trading on Exchange <i>vis á viz</i> If Delivery of Gold was Taken on Last Trade	44
4.24	What do you do with Gold Taken Delivery of?	45
4.25	Reasons for Moving Gold out of Vault After Delivery	45
4.26	Difficulty in Taking Delivery of Gold	46
4.27	Will More Vaults Improve Taking Physical Delivery	46

List of Abbreviations

\$	United States Dollar	MENA	Middle Eastern and North African
AFM	Association of Futures Markets	MICEX	Moscow Interbank Currency Exchange
CAD	Current Account Deficit	MoU	Memorandum of Understanding
CFFEX	China Financial Futures Exchange	NSEL	National Spot Exchange Limited
CFTC	Commodity Futures Trading Commission	NYMEX	New York Mercantile Exchange
CII	Confederation of Indian Industries	PMEX	Pakistan Mercantile Exchange Limited
COMEX	Commodity Exchange	LOTG	London-Over-The-Counter
CSRC	China Securities Regulatory Commission	LTG	Long Term Capital Gains Tax
CTT	Commodity Transaction Tax	RTS	Russian Trading System
DCE	Dalian Commodity Exchange	SEBI	Securities Exchange Board of India
DCM	Designated Contract Market	SEC	Securities and Exchange Commission
DGCX	Dubai Gold and Commodities Exchange	SGB	Sovereign Gold Bond
ECA	Essential Commodities Act	SGE	Shanghai Gold Exchange
FCRA	Forward Contract Regulation Act	SHFE	Shanghai Futures Exchange
FIA	Futures Industry Association	STT	Security Transaction Tax
FM	Finance Minister	TDS	Tax Deductible at Source
FSDC	Financial Sector Development Council	TFEX	Thailand Futures Exchange
GMS	Gold Monetisation Scheme	TOCOM	Tokyo Commodity Exchange
GoI	Government of India	TRY	New Turkish Lira Currency
GR	Gram	TURKDEX	Turkish Derivative Exchange
ICE	Intercontinental Exchange	UAE	United Arab Emirates
IGC	India Gold Coin	UK	United Kingdom
IGE	Istanbul Gold Exchange	USA	United States of America
INR	Indian Rupee	WFDB	World Federation of Diamond Bourses
LBMA	London Bullion Market Association	ZCE	Zhengzhou Commodity Exchange
MCX	Multi Commodity Exchange of India Ltd.		



Executive Summary

India, one of the largest consumers of gold in the world, meets almost all of its domestic supply of gold through imports. The large scale dependence on imports exposes the domestic gold industry to global variations in demand and supply of gold. Consequently, the domestic prices of gold are largely governed by international prices and the factors influencing them, thereby making members of the gold value chain vulnerable to global price fluctuations. Such a situation necessitates the stakeholders in gold value chain to hedge against risk emanating from adverse price movements influenced by domestic as well as international factors.

With this backdrop, a study based on a primary survey was conducted among various stakeholders in the gold value chain to understand their hedging practices, extent of use of gold futures as a hedging instrument and identify the constraints for the development of a robust gold futures market.

The specific objectives of the survey and study were as follows:

1. To assess the contribution of gold futures market to the bullion industry.
2. To assess the economic impact of CTT on the gold futures trading.
3. To determine factors affecting domestic stakeholders of the gold industry in using derivatives platform for managing the price risk.
4. To identify the constraints for the growth and development of a robust gold futures market.

Major Findings of the Survey

A primary survey was conducted among 453 jewellers including retailers, manufacturers, exporters, wholesalers and combinations of them in three cities viz., New Delhi, Ahmedabad and Kochi. Nevertheless, majority of jewellers in India

are typically retailers, which is reflected in the sample. The results of the survey are highlighted below.

1. Contribution of Gold Futures to the Bullion Industry

The survey revealed that the major benefits of gold futures market perceived by the bullion industry are mainly access to better quality of gold, absence of counterparty risk and price discovery. As price discovery is one of the major functions of the futures market, the price signals from the futures market become benchmark for jewellers. Of the total sample, most of the medium sized jewellers (with annual turnover of INR 50 lakh to INR 5 crore) follow the prices discovered in domestic commodity exchanges for setting their price. As for stakeholders' finding hedging opportunities in the gold futures market, the survey found interesting results. The survey revealed that holding on to gold is still the predominant form of hedging against price risk, and less than half of the jewellers trade in gold futures to hedge. Although investment seems to be the primary attraction for the respondents towards the gold futures market, there is a noticeable shift in their purpose of trading towards hedging price risk over a period of time. In other words, a large proportion of respondents, who were speculators initially, became hedgers after trading over a period. As a result, the share of hedgers increased while that of speculators has declined in the same sample over time.

It was also found from the survey that jewellers do use the exchange platform as a means to procure standard quality gold for their business needs, as indicated by a sizeable share of respondents.

2. Factors affecting Gold Stakeholders in using Derivatives Platform

The survey found that respondents' selection of the tenure of futures contracts largely depend on

two factors - first, their business cycle and second, the tenure of their gold metal loan. The former depends on the average demand for gold in the country which in turn affects the turnover of their business while the latter is fixed by the Reserve Bank of India (RBI).

Similarly, the preference of size of the futures contract is also associated with the turnover and business cycle of the respondent jewellers. Smaller size contracts are preferred by the jewellers with lower turnover and vice-versa.

The survey also explored the link between education and purpose of trading. Nearly 90 per cent of the respondents were either graduates or post graduates. However, no discernible connection between education and reason for trading was observed. This maybe because jewellery businesses in India has mostly been family run business and so it is more likely that business-related knowledge and skills, may have been learned in an informal way and not necessarily as part of their formal education.

3. Economic Impact of CTT on the Gold Futures Trading

The levy of Commodity Transaction Tax (CTT) has resulted into increased cost of trading in gold futures leading to a noticeable fall in participation in domestic futures markets. An overwhelming number of respondents cited that they stopped trading on the exchanges due to the rise in costs, which was mainly due to CTT. Nearly 50 per cent of 300 respondents stated that their costs increased by around 15 per cent during the period following the levy of CTT. Further, when enquired of their preference to re-enter into gold futures, about 12 per cent of the respondents indicated that

they would participate again if trading costs are reduced, particularly CTT.

4. Constraints for the Growth and Development of a Robust Gold Futures Market

The survey found that the major constraints in the growth and development of a robust gold futures market was lack of awareness among large number of jewellers about the futures market and the hedging opportunities provided by gold futures. In fact, one of the major reasons for exiting the gold futures trading, as cited by the jewellers, was increased transaction costs. Finally, a large section of the respondents quoted difficulty in taking delivery as a constraint, though they did not think increasing the number of vaults would necessarily ease taking physical delivery.

5. Policy Recommendations

Given the acute adverse effect that the Commodity Transaction Tax (CTT) has had on the gold futures market, the tax should be repealed immediately. Other policy actions that can deepen the market include permitting all types of financial institutions, particularly the banks and bank-owned subsidiaries to trade in gold futures. Warehousing Development and Regulatory Authority of India (WDRAI) should be allowed to accredit existing exchange-accredited vaults. This would incentivise large institutions to trade in gold derivatives and take/ give delivery on the exchange. This would also enable the issuance of receipts get *Negotiable Instruments* status.

The Exchanges, on their part, need to create innovative strategies for generating awareness about gold futures and its benefits, and also explore ways to improve the delivery mechanism.



Background

1.1 Introduction

India has a long and special relationship with gold. From weddings to religious festivals, gold jewellery has a strong cultural relevance and its role in traditional Indian life dates back to centuries. However, gold is not just viewed as an adornment. For many people, gold is viewed as a safe, secure investment; a unique way to preserve their wealth. Gold makes a valuable contribution to India's economic growth as well. Various estimates state that approximately 3.5 million people are employed in the gems and jewellery industry with an economic value addition of at least US\$ 30 billion per annum. Gold also plays a central role in the Indian gems and jewellery export market, one of the fastest growing industries in the country and a leading foreign exchange earner.

That said, India is also one of the largest importers of gold in the world, second only to China. The dependence on imports can be explained by the fact that India has only a negligible domestic mining capacity. The majority of gold in India is imported from Switzerland, South Africa and Australia. India imported a staggering 926 tonnes of gold in 2015-16. Notwithstanding our consumption quantities over many decades, the harsh truth is that India has no role to play in the global bullion market. We have been only consumers and that too passive ones at that. Even though Indians have been the largest consumers of gold, we have had no influence on the price of gold, we have never really made an effort to either.

China and Singapore are comparatively late entrants in the gold market, much like Dubai. China which had recently overtaken India in terms of gold import had already become a member of the LBMA Gold Price (erstwhile London Fix) through ICBC Standard Bank. In addition to this, China has also started its own price setting

mechanism, 'The Shanghai Gold Benchmark', which is rapidly gaining international popularity and is expected to compliment or even challenge the global price setting mechanism in coming times. Furthermore, the gold futures contract of Shanghai Gold Exchange can now be traded at the Dubai Gold Commodity Exchange. It will not be long before other commodity exchanges around the world allow the same. China clearly intends to be the global price maker and create a market for China made gold worldwide. Singapore is going the same way. Dubai has refining facilities that are capitalising on India's demand for gold. We have a long way to go when it comes to creating a place for ourselves in the global gold market.

1.2 Gold Monetisation in India

India had traditionally been the largest consumer of gold, next only to China. Despite this fact, India has been unable to create an efficient gold ecosystem commensurate with domestic consumption and its position in the world gold trade, which will help in promoting price discovery, establish quality control and facilitate better integration with the financial markets. This is so because India has never had a lucid gold policy. In 2013, an escalating current account deficit, on account of rising import of gold forced the government to examine its stance on gold. This was the genesis of recent gold monetisation initiatives in India. In 2014, the incumbent government took its first steps towards gold monetisation. Three schemes were announced – the Gold Monetisation Scheme (GMS), the Sovereign Gold Bond (SGB) and the sovereign India Gold Coin (IGC).

The GMS targeted retail deposits of gold in Indian households. Indian households would be allowed to deposit their existing gold with banks and earn an interest on the same. The SGB, on the other hand, was targeted at those individuals who were likely

to buy gold in the future. SGB offered consumers the option of buying a financial product that mirrored the physical commodity. It was hoped that through the SGB, the investment demand for physical gold will be diverted to the bond. The sovereign IGC is expected to provide consumers with a standardised alternative product rather than buying coins from jewellery stores.

While the SGB has had encouraging response, both GMS and IGC have had limited success. IGC has had limited success on account of inadequate distribution networks. On the other hand, GMS has not achieved the desired results due to many operational complications.

1.3 Price of Gold

While the government continues its commendable effort towards gold monetisation, a rudimentary analysis suggests that the lack of transparency in dealings and in prices are the biggest hurdles. There is no fixed spot price for gold in India, with significant variations in price and quality of gold across channels and points of sale. Jewellers prefer to buy certified gold from established agencies abroad because of which the country is heavily dependent on gold imports to meet its domestic demand. What India needs is a formal trading platform that facilitates transparent spot buying and selling of gold. Such a platform can help in price discovery, remove price disparities and arbitrages, establish quality control, and enable integration with financial markets, thereby creating a better gold recycling process and in turn creating a robust gold ecosystem.

Despite the fact that gold enters the country through formal channels, it soon flows out of the formal system into the informal market. The result of this has been poor spot price discovery for gold. For monetisation to truly work in India, transparent price discovery is imperative. Ideally, a spot exchange would be tasked with

the responsibility of transparent price discovery. The interplay between spot and futures exchanges leads to price discovery. However in the absence of a gold spot exchange in India, one must turn to the commodity derivatives exchanges to fulfil this responsibility.

1.4 Commodity Transaction Tax (CTT)

The beginning of gold futures contracts augured for the gold ecosystem. It was a means to price discovery. In 2013-14, the then Finance Minister introduced a commodity transaction tax (CTT) on all non-agricultural commodity transactions. It was believed that trading in non-agricultural commodity futures is no different from trading in security derivatives except for the underlying asset. Hence, in order to bring parity and to allegedly counter the movement of volumes of trade from security derivatives to commodity derivatives, a 0.01% CTT was introduced on non-agricultural commodities. Agricultural commodities were exempted from CTT to encourage farmers to trade on commodity exchanges to hedge their risk. Another important consideration then was to increase revenue collections for the government. The security transaction tax (STT) in the place of long-term capital gains tax had fetched the government considerable revenue, without having a detrimental effect on volumes of trade. Unfortunately, the same could not be said of the commodity markets.

The introduction of CTT resulted in sharp decreases in volumes of trade, falling as much as 41 per cent in the same year and 42 per cent in the following year. Despite the fact that the gold futures were delivery based contracts, CTT was applicable. The average daily turnover for gold futures on the Multi Commodity Exchange (MCX), which holds above 90 per cent of the market share, fell by as much as 65 percent within a period of three quarters of CTT being imposed, including more than 50 per cent decline in the number of clients trading in gold futures.



1.5 Objective of Study

Any impact of CTT on gold futures trading has an impact, direct or indirect, on gold monetisation. Two most significant of these are, one, that any increase in costs of trading would drive market participants out of the formal, organised exchange mechanism to over the counter informal market. Two, it would have a negative impact on trading volumes, thereby affecting price discovery.

In this context, this study was undertaken bearing in mind the following three objectives.

- i. To assess the contribution of gold futures market to the bullion industry.
- ii. To assess the economic impact of CTT on the gold futures trading.
- iii. To determine factors affecting domestic stakeholders of the gold industry in using derivatives platform for managing the price risk.
- iv. To identify the constraints for the growth and development of a robust gold futures market.

2. Literature Review

2.1 History of Trading in Futures Contract:

Contrary to popular belief, trade of commodities through futures contract is an age old practice and had been in existence for centuries now. A quick web search reveals that trade of commodities through futures contract dates back to 1750 BC when the sixth Babylonian King Hammurabi, allowed sale of goods and assets on an agreed price at a future date provided it is backed by a contract in writing and witnesses. In modern day world, the first known commodity exchange to start futures trading was the Dojima Rice Exchange established in 1697 in Osaka, Japan. It was later dissolved in 1939. All this while, Europe was not too far behind. A unique system of daily prompt dates for up to three months forward for tin and copper was started at the Royal Exchange of London which was known to be a popular hub for international metal trading during that time. The London Metal Exchange (established 1877), the successor to the Royal Exchange still follows this unique system of forward delivery till day. Back home in India, there are recorded evidences of futures trading being carried out by Marwari businessmen in standardised opium futures contract as early as in the 19th century. Formalised futures trading started in 1875 in the British India when Bombay Cotton Trade Association started trading in cotton contract. This was started to compliment the trade of cotton futures in England.

Further west, Commodity Exchange (COMEX) in United States is one of the oldest and most significant commodity exchanges that started

trading in futures derivatives. COMEX is currently owned by the CME Group and was originally an independent exchange founded in 1933. It started trading in commodity futures in 1972 and started offering gold futures in December 1974. Later, it became a subsidiary of the New York Mercantile Exchange (NYMEX) in 1994, which in turn became a subsidiary of the CME Group Inc. in August 2008. Presently, COMEX is a Designated Contract Market (DCM) and is regulated by the US Commodity Futures Trading Commission (CFTC) under the Commodity Exchange Act of 1936.

2.2 Major International Futures Exchanges:

Currently, the CME group's COMEX is the largest gold derivatives exchange in terms of traded volume. It accounts for more than one third of the global trade in gold futures. COMEX recorded a total trading volume of 42,373,075¹ futures gold contracts in 2015. The COMEX 100 Gold Futures registers the highest volume among all CME precious and base metal futures. It is interesting to note that COMEX is one of the two key drivers of the global price discovery of gold the other being the London-Over-The-Counter (LOTC) wholesale gold market. That said, it is a subject of highly contentious debates among economists and financial experts till day, as to which of these markets leads the other in global price discovery. While some believes that that the estimated share in price discovery for London market is 45 – 55 per cent, depending on the method used to calculate, others contradict this in favour of the US derivatives market.

¹ Futures Industries Association (FIA)



Lucey et al. (2012) had analysed the gold prices of London A.M. fixing and COMEX spot closes since January 1986 till end of July 2012 and stated that:

“... first, that the main markets remain London and New York and second, that it is unclear who ‘leads the dance’ ...”

Hauptfleisch et al. (2015) compared the intraday data of gold prices in the UK OTC and the US futures market during the period of 1997 to 2014 to determine the dual aspects of actual source of price discovery and how this has changed overtime. Hauptfleisch et al. concluded that despite trade volumes of COMEX being less than one tenth of the London’s OTC trade (78.0 per cent market share compared to 7.7 per cent), COMEX tends to play a larger role in incorporating new information about the value of gold. Two major observations were made during this study. The first observation stated that centralisation and relative transparency are two essential factors responsible for futures market playing a greater role in price discovery. These combined with low transaction cost, inbuilt leverage and ability to avoid dealing with the underlying asset makes futures market a favourable option for market participants looking to trade in gold as a financial product. These contribute disproportionately to price discovery. The second observation revealed that transition of the COMEX trading system from an open outcry floor to an electronic platform lead to decrease in microstructural noise, reduced spreads and increase in trade volume including international trade, largely owing to low trading cost. COMEX’s influence on price discovery was increased with the introduction of the 24 hours GLOBEX platform in 2006, which led to COMEX leading the market throughout the day irrespective of market hours.

In his article, “Who Sets the Gold Price”, Sieron (2016) states that the COMEX provides better transparency

in both transaction and price in its dealings when compared to dealings of LOTC. He claims that regardless of the fact that LOTC handles far higher volumes of trade, the global price discovery happens at COMEX due to its better transparency, higher liquidity and faster transactions. Sieron justifies his claims writing that,

“...Volume alone is not as important as market structure. Futures market gives investors, speculators and hedgers have the advantage of spot trading. The majority of volume is traded in London OTC market, but because of lack of price and transactions’ transparency, the majority of price discovery happens in NY. Futures market are more transparent, highly liquid and enable investors to make transactions faster, with leverage or options – not to involve physical delivery. Thanks to these features, futures market are fastest to react to new information, quickly incorporating it into the gold prices. They are so effective that the gold spot price is actually derived from futures prices (it is a bit counterintuitive, since the futures prices are in theory determined using the commodity’s spot price, the risk free rate, time to maturity of the contract and other factors, such as costs associated with storage or convenience premium). In practice the spot price (theoretically, an immediate price with settlement in two business days) is determined by the most recent month futures contract with the most volume...”

Other than COMEX, the Intercontinental Exchange (ICE) is yet another American futures exchange that offers gold futures. ICE handled a total volume of 280,873² gold futures in 2015. Apart from the US market, Tokyo Commodity Exchange (TOCOM) in Japan and Moscow Exchange in Russia, also handle major volumes of gold futures trade in the global derivative market. The Japanese commodity futures market is one of the oldest commodity

² ibid

futures market in the entire world. TOCOM was created in November 1984 due to merger of Tokyo Textile Exchange with Tokyo Rubber Exchange and Tokyo Gold Exchange. TOCOM reported to have traded 11,271,918³ gold futures in 2015. On the other hand, Moscow Exchange MICEX-RTS or Moscow Exchange as it is commonly known as, was formed on 19th December 2011 by merging the Moscow Interbank Currency Exchange (MICEX) and the Russian Trading System (RTS) Moscow Exchange. It is one of the ten largest derivative exchanges in the world. The Moscow Exchange reported to have traded 10,784,533⁴ gold futures in 2015.

Closer home, China, started developing its futures market in early 90s with the beginning of futures trade in the Zhengzhou Grain Wholesale Market. Currently, China has four futures exchanges namely the Zhengzhou Commodity Exchange (ZCE, established in 1993), Dalian Commodity Exchange (DCE, established in 1993), Shanghai Futures Exchange (SHFE, established in 1999) and the China Financial Futures Exchange (CFFEX, established in September 2006). All these future exchanges functions under the supervision of China Securities Regulatory Commission (CSRC). Of these, SHFE deals in precious metal futures contracts. SHFE was formed due to the merger of Shanghai Metal Exchange, Shanghai Cereals and Oil Exchange and Shanghai Commodity Exchange in December 1998. It currently has 200 members of which about 80 per cent are futures firm members. SHFE offers 12 futures contracts for trading including futures contract on gold. SHFE started trading in gold futures in January 2008. The launch of gold futures opened up new avenues to facilitate the development of gold market and improve the connection between commodity

futures market and financial market in China. SHFE offers standard 1 Kilogram contracts denominated in yuan/gram. SHFE reported to have traded 25,317,200⁵ futures contracts of gold in 2015.

A little further, the Dubai Gold and Commodity Exchange (DGCX) was started in November 2005 and is the first commodity derivative exchange in the Middle East and North Africa (MENA) region. It currently has 267 members trading on its platform. DGCX is regulated by the Securities and Commodity Authority (SCA), the federal regulator for securities and commodity markets in the UAE. The DGCX One Kilo Bar Gold Futures Contract was the first contract launched on the DGCX platform and claims to have set a new pricing benchmark for gold in UAE. It is estimated that more than 5.4 million 1 kilo gold bar contracts have been traded till day. The DGCX has reported to have traded 4,56,682⁶ contracts in 2015.

In October 2016, the Dubai Gold and Commodities Exchange (DGCX) signed a memorandum of understanding (MoU) and obtained license from the Shanghai Gold Exchange (SGE) to list a contract named as the DGCX - Shanghai Gold Futures. It will be the first Yuan denominated product to be offered outside China which will also use Shanghai Gold Benchmark as its pricing mechanism. The DGCX - Shanghai Gold Futures is expected to offer traders around the world access to Chinese gold futures market along with that a deeper pool of liquidity and an enhanced gold pricing mechanism.

Not very far from Dubai, Turkey was one of the earliest Asian countries to introduce an exchange solely for gold in Istanbul. The Istanbul Gold Exchange (IGE) was established on 26th July 1995 with its members given the exclusive authority

³ ibid

⁴ ibid

⁵ ibid

⁶ ibid



to import gold in the country. The IGE became responsible for channelising gold into the financial system, for development of gold based financial instruments and for international integration of gold sector in Turkey. More importantly, it helped in bringing uniformity in price of gold and standardisation in weight and shape of gold to be circulated making gold dealings transparent. In April 2013, IGE was formally dissolved and merged with the Istanbul Stock Exchange to create the centralised Borsa Istanbul A. Ş. The Borsa Istanbul is capable of undertaking trade of precious metals and diamond. On 5th August 2013, Borsa Istanbul Futures & Options Market trading platform was merged with Turkish Derivative Exchange (TURKDEX), which had been actively trading in gold futures since 2005. It is a member of Association of Futures Markets (AFM), Futures Industry Association (FIA), World Federation of Diamond Bourses (WFDB) and London Bullion Market Association (LBMA). Borsa Istanbul currently offers two distinct gold futures products i.e. the TRY/GR Gold Futures and USD/OUNCE Gold Futures. In 2015, the Borsa Istanbul reported to have traded 1,404,624⁷ gold futures.

Apart from these, the Thailand Futures Exchange and the Pakistan Mercantile Exchange are also among the fast growing futures commodity exchanges in Asia. Thailand Futures Exchange (TFEX) is a subsidiary of the Stock Exchange of Thailand and was established on 17th May 2004. It is governed by the Derivatives Act B.E. 2546 (2003) and is under the supervision of the Securities and Exchange Commission (SEC).

It started trading in gold futures in February 2009. TFEX currently offers two different gold futures contracts i.e. the 50 Baht Gold Futures and the 10 Baht Gold Futures. TFEX reported to have traded a total of 1,461,536 gold contracts in 2015. On the other hand, Pakistan Mercantile Exchange Limited (PMEX), formerly National Commodity Exchange Limited, is the first commodity exchange to be set up in Pakistan. It started its operation in May 2007. PMEX is licensed and governed by the Securities and Exchange Commission of Pakistan and has 100 per cent institutional shareholding. PMEX initially started trading only in gold and later introduced other commodities. Currently it trades in 17 different gold futures contracts. PMEX reported to trade of 1,035,768 gold futures contracts in 2015.

Over the last decade, several commodity exchanges around the globe have started offering gold futures thus complementing their OTC counterparts by providing additional liquidity and flexibility. Today, major Asian economies especially China, India, UAE, Pakistan, Thailand and Turkey have active derivative markets handling huge volumes of futures trade in gold. In fact, SHFE (China) and MCX (India), two of the largest Asian commodity exchanges trading in gold futures are now equally responsible for price discovery along with their respective OTC trades. On the other hand, DGCX (Dubai) is gradually emerging as a global player in the gold futures trade. DGCX now compliments the Dubai OTC gold trade and is a key player for gold price discovery in the MENA region.

⁷ ibid

⁸ ibid

⁹ ibid

3. Review of Gold Futures Market in India

3.1 Commodity Futures Trade in India: Past and Present

India started trading in commodities futures way before it started in Europe and the Americas. Reference to market operations similar to futures commodity trade can be found in Kautilya's Arthashastra. However, much of it had been lost due to several external conditions such as foreign annexations, frequent change of regimes, change in socio political conditions and several natural calamities. Futures market in an organised form was restarted in the late 19th century under the British Rule. The first organised commodity futures market in India started with the setting up of the Bombay Cotton Trade Association in 1875. The creation of the Bombay Cotton Trade Association also coincided with the establishment of trade of cotton futures in England. Soon after, in 1893, due to rising discontent over the functioning of the Bombay Cotton Trade Associations among leading cotton mill owners and merchants a separate association was created and was named Bombay Cotton Exchange Limited.

By the beginning of the 20th century a number of regional futures exchanges started operating throughout the country. The Gujrat Vyapari Mandali (later renamed Bombay Commodity Exchange Limited)¹⁰ was established in Mumbai to carry out futures trade in castor oil seeds and ground nut apart from cotton. In 1913, the Chamber of Commerce at Hapur (Uttar Pradesh) was set up to carry out trading of wheat. In 1920, a futures bullion market was established in Bombay and were subsequently followed by the opening

of similar markets in Rajkot, Jaipur, Jamnagar, Kanpur, Delhi and Calcutta. The Calcutta Hessian Exchange Ltd. was established in 1919 where forward trading of raw jute and jute goods were carried out. In 1927, East India Jute Association Limited was set up which carried out futures trade in raw jute. In 1945, the East India Jute Association Limited and the Calcutta Hessian Exchange Ltd. were merged together to form the East India Jute & Hessian Exchange Ltd. to conduct organised trading in raw jute and jute goods.¹¹

Commodity futures trade was suspended in British-India during the Second World War. Later, on adoption of the constitution of the Republic post-independence, the Seventh Schedule allowed for 'Stock Exchanges and Commodity Markets' to be brought under the Union List. The Forward Contract (Regulation) Act (FCRA) came into existence in 1952. The erstwhile Forward Market Commission was set up in September 1953. Further, Forward Contracts (Regulation) Rules, a set guidelines were notified by the Government of India in 1954 to classify commodities which can be traded on exchange. In 1955, the Essential Commodities Act (ECA) was passed to restrict free trade of essential agricultural commodities. The Act also passed on the production, supply and distribution of many agricultural commodities to the State Governments and their ministries. During that time, organised future trading of agricultural product was carried out in spices by the Indian Pepper and Spice Trade Association in Cochin in 1957.

In 1966, the Government of India put a ban on

¹⁰ As per media reports the Securities Exchange Board of India (SEBI) in October 2016 had allowed the BCEL to exit future business due to nil trading since 2013.

¹¹ The EIJHE still exists as a registered company although it practically has nil trading.



future trade of several agricultural commodities leaving a handful of insignificant ones, in order to track price movement of these commodities. By 70s, majority of the registered future and forward trading associations came under the axe resulting to a shift in the future trading to informal and unofficial routes. The situation persisted for close to four decades irrespective of Dantawala Committee (1966) and Khusro Committee (1980) suggesting otherwise. Based on several reports, the Government of India decided to re-introduce futures trading in the later part of 1980 by allowing future trading of potatoes in Punjab and Uttar Pradesh. Reforms in future trading picked up pace with the liberalisation of the financial sector in 1993. In June 1993, a committee was formed on Forward Market Commission under the leadership of Prof K N Kabra. The Kabra Committee, as it was known as, submitted its final report in September 1994. The Kabra Committee recommended futures trade in 17 selected commodities. However, it also suggested that future trade ban to be continued on selected agricultural commodities such as wheat, pulses, non-basmati rice, tea, coffee, dry chilli, maize, vanaspati and sugar and case by case review of suitability be carried out in future. In 2003, prohibition on forward trading was completely withdrawn. Beside this, new commodity exchanges were established which converged modern technology, capital, innovation and professional management to make trading hassle free, cheaper and less risky. In the past decade, the commodity future trade has grown by leaps and bounds. Over the years, many national and regional commodity exchanges have come into existence and has established themselves as major trading centres. These exchanges brought technology and innovation in the market making future trading faster and effective. Trading on commodity exchanges has reached new heights by the end decade with Indian derivative exchanges undergoing a metamorphosis. Even the policy

maker was not spared from change. In 2013, the break out of the NSEL scam forced the Forward Market Commission to merge with SEBI. The FCRA was also brought under the ambit of Securities Contract (Regulation) Act, 1956 by amendment of the Finance Act in 2015. However, the trade of commodity still remained under the ambit of State List and is governed by the Ministry of Consumer Affairs, Food and Agriculture.

At present, there exist four national commodity exchanges (of which three are currently facilitating futures trading) besides a few regional commodity exchanges in India. While the regional commodity exchanges are mostly area specific and deal in specific commodities, the national exchanges usually deal in multiple commodities and have trading terminals spread all over the country. These four national commodity exchanges (in no specific order) are:

- a. Multi Commodity Exchange of India Limited, Mumbai
- b. National Commodity and Derivatives Exchange Limited, Mumbai
- c. National Multi Commodity Exchange of India Limited, Ahmedabad
- d. Indian Commodity Exchange Limited, New Delhi (currently not facilitating futures trading)

3.2 Current Scenario of Gold Futures Market in India:

In India, the bullion derivative market have grown exponentially over the years. The majority of futures trade in bullion is carried out on the platform of the Multi Commodity Exchange of India Limited (MCX) which also accounts for more than 95 percent of the trading in gold futures in India. Growth in futures trading in bullion especially in precious metals such as gold and silver have a visible impact on its stakeholders and value chain players. In absence of an organised spot market in India, the MCX futures

derivative price is used as a reference price by majority of the stakeholders of the gold value chain across the country. This also enables the bullion traders and jewellers to hedge against price fluctuation and market volatility. Apart from this, an exchange traded contract also helps in establishing quality control as exchanges undertake responsible sourcing. Trading of gold futures contracts on exchanges remove price disparity and arbitrage, enable better coordination with the financial market and enhance integration with the global bullion market. These create a better gold recycling process and a robust gold ecosystem in the country. Due to the highly unorganised nature of bullion trading in the country, trade through future exchange brings the much needed unambiguity and legitimacy to the trade. Table 3.1 lists the different types of gold futures which have been offered on MCX since 2011 till 2015.

As Table 3.1 portrays, there has been an enormous drop in the volumes of trade in gold futures since 2013. The reason for this drastic fall can be largely attributed to the imposition of the infamous Commodity Transaction Tax (CTT) that came into existence on 1st July 2013

3.3 Commodity Transaction Tax (CTT):

The concept of CTT was first conceived during the Union Budget of 2008-09 by the then Finance Minister of India, Shri P Chidambaram, who proposed to introduce a transaction tax of 0.017 per cent on sale of commodity derivatives on exchanges. The levy was intended to create a level playing field between the equity and the commodity market as it was believed that trading in commodity futures was no different from trading in security derivatives except the underlying asset. Moreover, it was thought that, like its security market counterpart [the Security Transaction Tax (STT) which had earlier replaced the Long Term Capital Gains Tax (LTCG)], the CTT would also fetch the Government a steady revenue flow without any detrimental effect on the market. The proposal was later withdrawn due to rising protests among commodity market traders who claimed it to be a massive discouraging factor for trade. Also, the Government was quick to realise that the introduction of CTT then would mean putting a death knell to the commodity derivatives market which was at that time at a nascent stage.

Table 3.1: Types of Gold Futures Offered on MCX along with Their Volumes (In Lots) [2011 - 2015]

Product	2011	2012	2013	2014	2015
Gold M	26,200,601	22,213,409	15,860,098	4,926,384	4,772,670
Gold	12,655,765	10,287,609	8,944,603	3,971,634	3,947,175
Gold Petal	31,086,737	36,004,247	19,021,199	3,298,545	2,490,519
Gold Guinea	9,411,289	7,356,664	3,635,882	658,484	457,243
Gold Global					30,184
Gold PTLDEL	54,411	64,374	44,846	21,279	2,010

Source: Futures Industry Association (FIA)



However, this happiness was short-lived! CTT made a comeback in the Union Budget of 2013-14, and was proposed at 0.1 per cent, although agricultural commodities were kept out of it. While presenting his budget speech for the financial year of 2013-14, Shri Chidambaram concluded, "There is no distinction between derivatives trading in securities market and derivatives trading in the commodities market, only the underlying asset is difference..."

The results proved to be severely detrimental to the commodity exchanges around the country. Several reports shows that following the levy of CTT, majority of hedgers moved out of domestic commodity exchanges (Velmurugan and Perumalraja (2016) ; Velmurugan and Kodiyathur (2016) ; Velmurugan and Champramary (2016)). These participants are assumed to have shifted to international exchanges or grey market trading, commonly known as Dabba Trading. Furthermore, a Deloitte and CII Report (2013) showed that prior to implementation of CTT, commodity derivatives market have directly and indirectly generated more than 1.5 million employment opportunities. Now with CTT severely

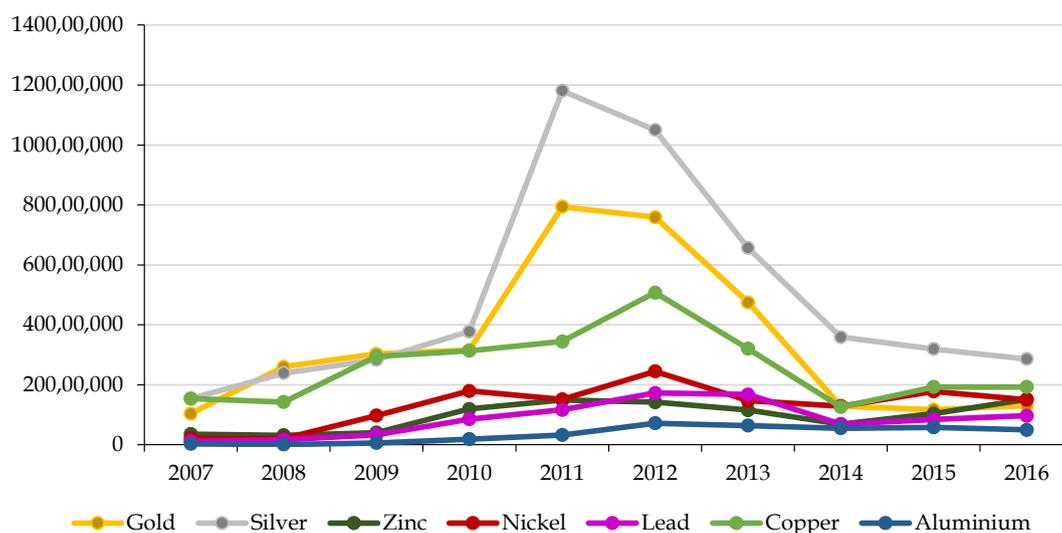
impacting commodity derivatives trading, a large number of these employment opportunities are under threat. Overall, introduction of CTT has served a major blow on the commodity derivative markets in India.

A representative movement of the metal futures market between 2007 and 2016 is shown in Figure 3.1. It can be found that trade in metal futures steadily increased between 2007 and 2011. Silver and gold outperformed the global volumes reaching an all-time high in 2011. In 2012, there was a marginal drop in domestic volumes due to a slowdown in the global trade. Post implementation of CTT in 2013, trade volumes took a nose dive. In 2014, it further plummeted has been decreasing since then.

3.4 Impact of CTT on Gold Futures Market:

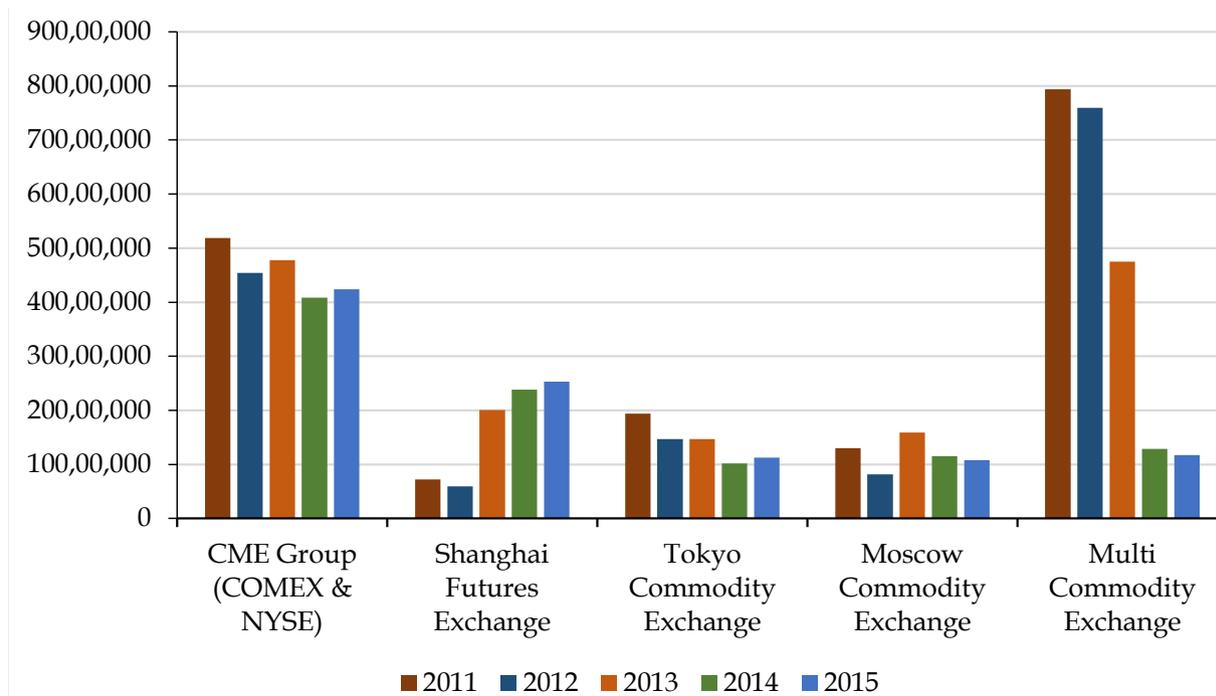
The attestation to the argument made by the then FM regarding CTT - that there is no distinction between securities derivatives' trading and commodity derivatives' trading except the underlying asset - fails

Figure 3.1: Volume of Trade in the Last 10 Years (2007-2016)



Source: MCX Data

Figure 3.2: Comparative Analysis of Volume of Gold Futures Traded on Different Exchanges in 2011-2015 (In Lots)



Source: Future Industries Association (FIA), Note: All variants/products of gold have been taken into consideration

to account for the economic functions of commodity derivatives. It is a well-known fact that small jewellers and bullion traders form a major section of the gems and jewellery sector in India. These small jewellers and traders participate on exchanges to hedge price in the highly volatile bullion market and for sourcing good delivery standard gold. In addition to these, various investors’ protection programmes run by the regulators and the exchanges provide the much needed trust for these small investors to move from grey market trade to a formal market. The introduction of CTT came as a shock to these small jewellers whose cost of trading unexpectedly shot up overnight because of CTT.

The impact of CTT can be further understood comparing the global volumes of trade in gold futures. Figure 3.2 gives a comprehensive analysis of the movement in trade in gold futures on different

exchanges around the globe over the last five years.

A quick glance at Figure 3.2 reveals that the global futures trade in gold have either spiked up (in case of China) or have more or less remained the same in the last five years. On the other hand, India saw a significant drop in gold futures volume since 2013. In 2011, the overall trade volume in India had been far ahead of the US market in 2011 and 2012. India had 79,408,803 open contracts in 2011 and 75,926,303 open contracts in 2012 respectively. With the introduction of CTT in July 2013, it dropped to 47,506,628 contracts, almost one-third of what it had in 2012. In 2014, this figure stood at just 12,876,326, a mere one-fifth of the volume in 2012. While India’s trade volume decreased drastically since 2013, other countries have maintained a steady market and in some cases recorded a marked increase in their trade volume. In fact China almost quadrupled its trade



volume from 5,916,745 contracts in 2012 to 20,087,824 contracts in 2013 and had steadily increased in the next two.

Market analysts believe that a large chunk of the erstwhile traders might have shifted business to competitive and tax friendlier market such as the DGCX (UAE) and COMEX (USA). In fact, with evolving bilateral trade and improving foreign policies between India and UAE there has been a gradual rise in trade and commerce between the two nations. Recently, the DGCX even launched an “India Gold Quanto Futures” with nil transaction cost, zero capital gains tax and no INR exchange rate

risk specifically targeting Indians. Although there is no evidence yet to prove this shift in volumes, but in absence of other relevant trading exchange shifting to a more economic market seems to be the next best option.

Interestingly, a quick scan of the transaction fee of various exchanges around the world will reveal that the transaction fee (charged by the exchanges) for gold futures on MCX is comparable to that of the CME Group and the DGCX. But cost of transaction in India has more than one constituent. Cost of trading in India includes the following parameters shown in Table 3.2:

Table 3.2: Break-up of Cost of Trading

Fees, taxes & Levies	Rate (%)	Remarks
MCX Transaction fees	0.0026%	Highest slab - as on Jan 9, 2017
Stamp duty	0.0010%	Maharashtra state
Service Tax on transaction fees	15.0000%	Including cess, on transaction fees
CTT	0.0100%	Only on Sell side
Regulatory Fee	0.0002%	SEBI Charges - as on Jan 9, 2017

Source: MCX

A back of the envelope calculation reveals that the cost of trading has more than doubled, post introduction of CTT. In this regard, the calculation from the working of Pavaskar and Ghosh still holds true revealing that the cost of hedging increases by as high as 2.66 times when CTT is added to the original cost of transaction. Table 3.3 below shows that CTT has made hedging on domestic exchanges costlier compared to global exchanges.

This disparity in cost of trading is bound to have a negative impact on the trade of commodity futures on the domestic exchanges. The negative impact of CTT on the commodity market has been highlighted by several experts. Commenting on the negative

impact of CTT on market migration and tax revenue, in gold futures market in India, Seeger (2013) had written that,

“...In the case of India’s non-agricultural commodities, the increased costs via the CTT will cause traders to pursue cheaper hedging opportunities on international exchanges or through illegal and untaxable *dabba* market activity. India’s hedging costs are already amongst the highest in the world, so any increase in transaction costs would almost certainly deter market activity. A large cost increase, such as that created by the CTT, would likely result in 65 – 70 per cent reduction in trading value, with some analysts predicting a 90 per cent loss in volume...”

Table 3.3: Cost Comparison across Global Exchanges

Gold (1 kg) hedging cost in rupees (buy and sell) (Contract value = Approx. INR 31.5 lakh)	CME	DGCX	Post-CTT	Pre-CTT
			MCX	MCX
Transaction Fee	70.3	46.2	116.6	116.6
Clearing Fee		13.2	-	-
Stamp Duty	-	-	63.0	63.0
Service Tax	-	-	17.5	17.5
CTT	-	-	315.0	0.0
Regulatory Fee	-	4.0	12.6	-
Total Hedging Cost (in Rs.)	70.3	63.4	524.6	197.0
Indian post-CTT transaction cost as against the international counterpart	747%	828%		

Note:

1. The transaction and clearing charges on CME for non-members (for which category the transaction fee is among the highest) is USD 1.45 each for a lot of 100 troy ounces.
2. For a comparative analysis, the transaction charges of CME are converted into INR for a contract value of INR 31.5 lakh – the approximate value of 1 lot gold traded at MCX.
3. DGCX too charges a transaction fee on per lot basis. The trading and clearing fee are USD 0.35 and 0.1 respectively, whereas the regulatory fee in the UAE is USD 0.03 per lot. The DGCX charges are also converted into INR on a contract value of Rs 31.5 lakh.
4. USD-INR Rate of 66 is considered for all the calculation

Source: Pavaskar, M. and Ghosh, N., 2008, *Commodity Transaction Tax: A Recipe for Disaster*, *Economic and Political Weekly*



An important aspect of CTT was revenue collection. The imposition of STT earlier in place of long term capital gains tax had fetched the government considerable revenue, without having a detrimental effect on the volume of trade. Unfortunately, the same could not be said of the commodity markets. A fall in the trade volume on the domestic commodity exchanges has led to a fall in the revenue from the exchanges apart from direct tax revenues such as income tax, service tax, TDS, Stamp Duty etc. from other market participants. In their paper, Pavaskar and Ghosh pointed out that imposition of any financial transaction tax (such as CTT) would

lead to reduction in trading volumes which in turn would lead to fall in the aggregate tax revenue. They further claimed that any fall in trading volumes greater than 20 per cent from the base line zero-CTT would have a direct impact on the collection from other taxes (income tax, service tax, TDS etc.) to such an extent so as to nullify the effect of the collection from CTT, making CTT revenue negative. In line with the analysis of Pavaskar and Ghosh, an analysis in table 3.3 shows that a drastic fall in trading volumes in 2014-15 and 2015-16 from the baseline year of 2012-13 have led to loss in total revenue to the Government.

Table 3.4: Calculation showing Revenue to Government from Trade of Gold Futures

S.No.	Particulars	
1	Annual Turnover (Buy & Sell)	Actuals
2	Prop Turnover	Actuals
3	Client Turnover	Actuals
4	Client Turnover % Share	Actuals
5	Prop Turnover % Share	Actuals
6	MTM Profits of all members (Aggregate)	Actuals
6.1	MTM Profit of all members - Pro	Actuals
6.2	MTM Profit of all members - Client	Actuals
	(Cumulative of all trading days - Prop & Client)	
7	CTT Paid	Actuals
8	Stamp duty @0.001%	Assumption
	Exchange:	
9	Service Tax Paid by Exchange	Actuals
10	Income Tax by Exchange	Actuals
	Members/Brokers:	
11	MTM profits - prop's share	Actuals
12	Brokerage from clients: (3) x 0.01%	Assumption
13	Service Tax on brokerage: (12) x 14.5%	Assumption
14	Net profit on prop businesses:	Assumption
15	Net profit on client businesses	Assumption
16	Income Tax on brokerage businesses: (15) x 33.3%	Assumption
17	Income Tax on prop businesses: (14) x 33.33%	Assumption
	Clients:	
18	MTM profits - client	Actuals
19	Cost - Brokerage: (12) * 0.5	Assumption
20	Cost - CTT & Stamp Duty: (7 + 8) x (4) x 0.5 + (13) x 0.5	Assumption
21	Net profit - client	Assumption
22	Income Tax on client profits	
	Total Revenue to GoI	

Assumption: Average brokerage charges for clients of 0.03 per cent; Net incomes for brokerage houses expected to be 25 per cent of their brokerage fees net of their expenses; income tax rate for brokers and MCX assumed at 33.33 per cent; 50 per cent of the intra-day transactions assumed to be contributing 80 per cent of trading volumes result in profits liable to income-tax at tax rate of 20 per cent; Remaining trade is assumed by hedgers and long-term speculators, falling in 33.33 per cent tax rate and with assumption that 50 per cent of their trade results in profit.

Source: MCX



2011-12	2012-13	2013-14	2014-15	2015-16
31,194,191	29,762,114	17,222,898	10,367,415	11,268,388
14,259,069	12,734,731	5,704,205	3,439,548	2,693,744
16,935,122	17,027,383	11,518,693	6,927,867	8,574,644
54%	57%	67%	67%	76%
46%	43%	33%	33%	24%
4,619.5	3,889.2	4,639.4	2,437.7	2,523.0
1,044.7	1,038.0	1,215.7	876.8	606.9
3,574.8	2,851.2	3,423.7	1,560.8	1,916.2
		479.5	514.1	517.0
311.9	297.6	172.2	103.7	112.7
58.5	64.4	48.1	34.3	34.5
109.3	102.5	63.1	50.8	38.9
1,044.7	1,038.0	1,215.7	876.8	606.9
2,116.9	2,128.4	1,439.8	866.0	1,071.8
306.9	308.6	208.8	125.6	155.4
313.4	311.4	364.7	263.0	182.1
635.1	638.5	432.0	259.8	321.5
211.7	212.8	144.0	86.6	107.2
104.5	103.8	121.6	87.7	60.7
3,574.8	2,851.2	3,423.7	1,560.8	1,916.2
1,058.4	1,064.2	719.9	433.0	535.9
238.2	239.4	322.3	269.2	317.3
2,278.2	1,547.5	2,381.5	858.7	1,063.0
759.3	515.8	793.7	286.2	354.3
1,555.1	1,296.9	1,822.2	1,163.3	1,225.3

4. Survey Results

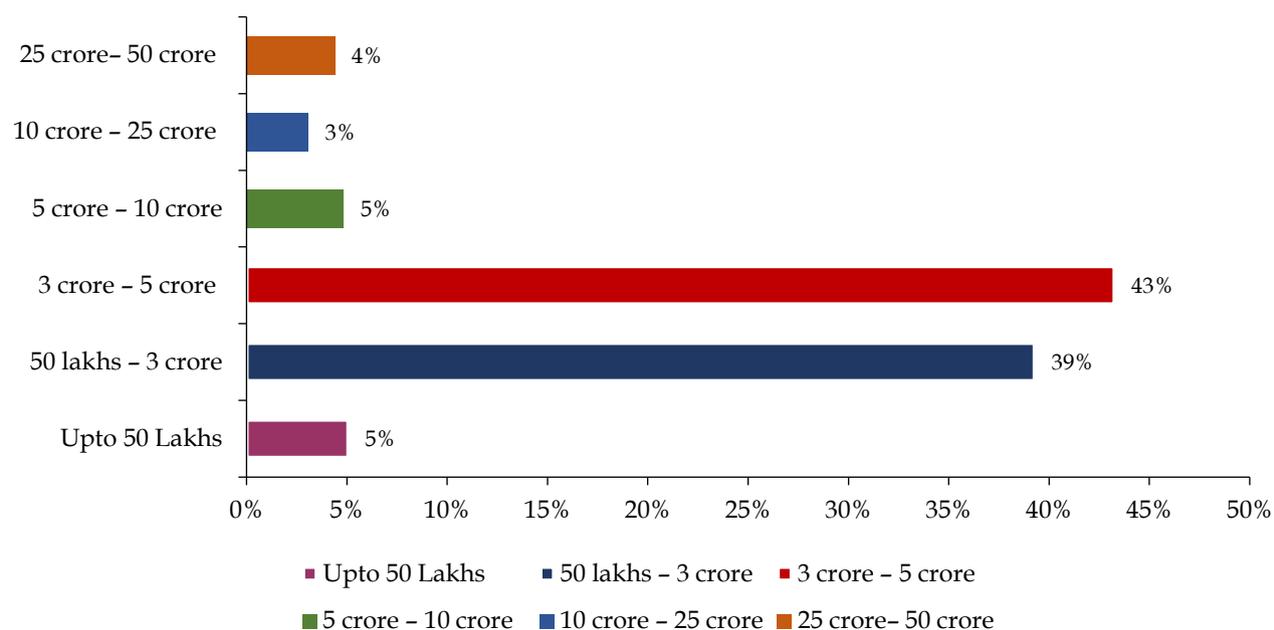
4.1 Profile of Respondents

A primary survey of 453 jewellers was undertaken, of which 300 are currently trading on the exchange and 153 were erstwhile traders on the exchange. The study was undertaken in the three cities of New Delhi, Ahmedabad and Kochi.

The majority of the jewellers surveyed were

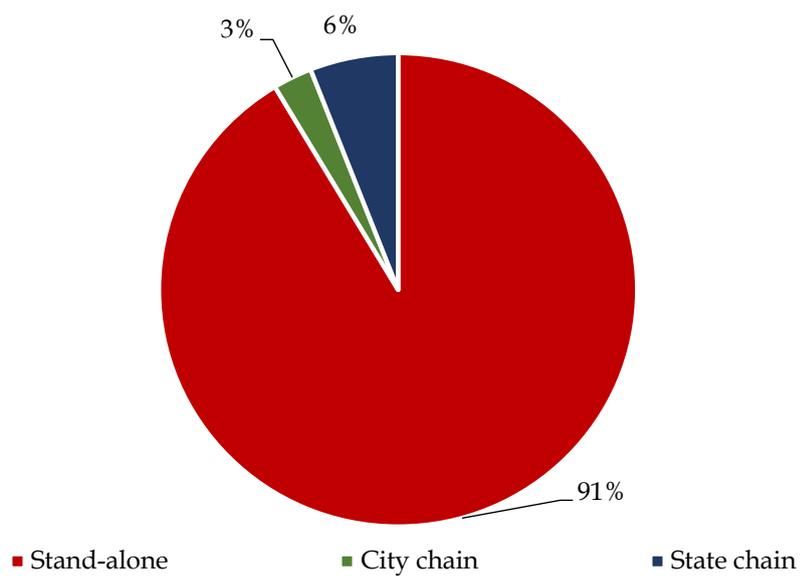
relatively small single outlet stores. The average annual turnover was between INR 50 lacs to INR 5 crores (Figure 4.1). Similarly, most of the jewellers had stand alone stores. Approximately 10 per cent of the respondents had either a city chain or state chain of stores (Figure 4.2). Nearly 90 per cent of the respondents were either graduates or post graduates (Figure 4.3).

Figure 4.1: Annual Turnover (In INR) (N=453)



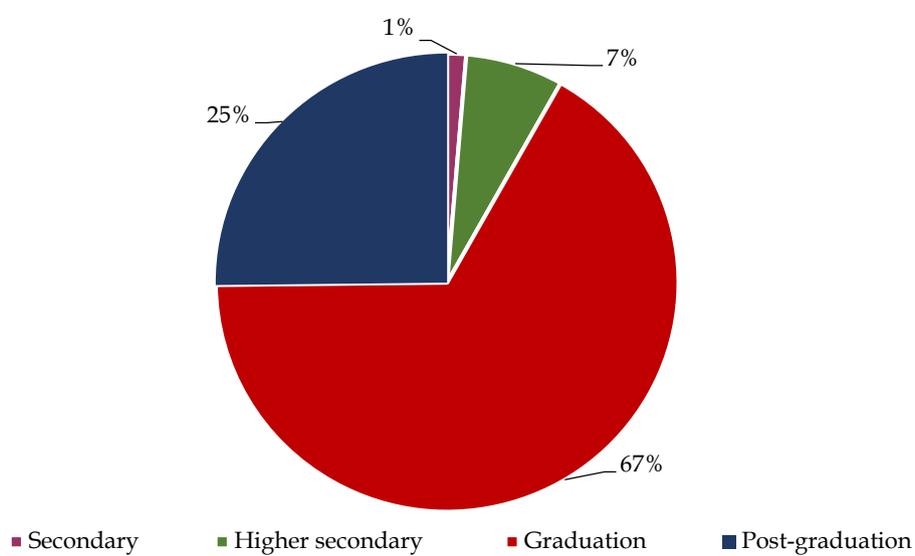
Source: PIF- BRIEF SURVEY

Figure 4.2: Types of Outlets (N=453)



Source: PIF- BRIEF SURVEY

Figure 4.3: Educational Qualification (N=453)

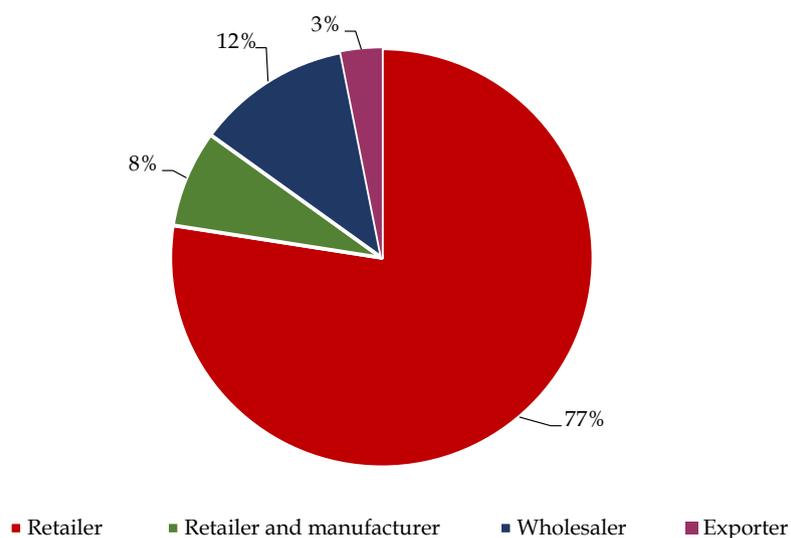


Source: PIF- BRIEF SURVEY

Typically jewellers can be retailers, manufacturers, exporters, wholesalers or combinations of the aforementioned. The majority of jewellers in India are typically retailers, which is reflected in the sample (Figure 4.4). Notwithstanding the nature

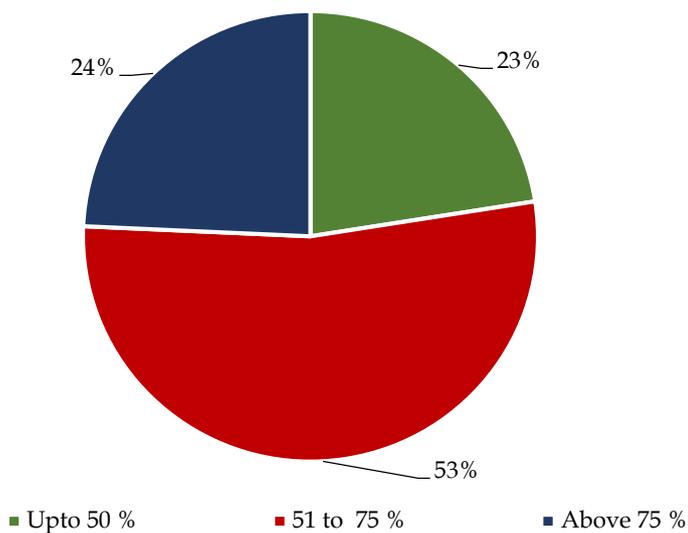
of business, the percentage contribution of gold to overall turnover can vary, especially depending on the size and nature of the stores. Over 75 per cent of the sample derived majority of their turnover from gold (Figure 4.5).

Figure 4.4: Business Profile (N=453)



Source: PIF- BRIEF SURVEY

Figure 4.5: Gold Business as a Percentage of Total Turnover (N=453)



Source: PIF- BRIEF SURVEY

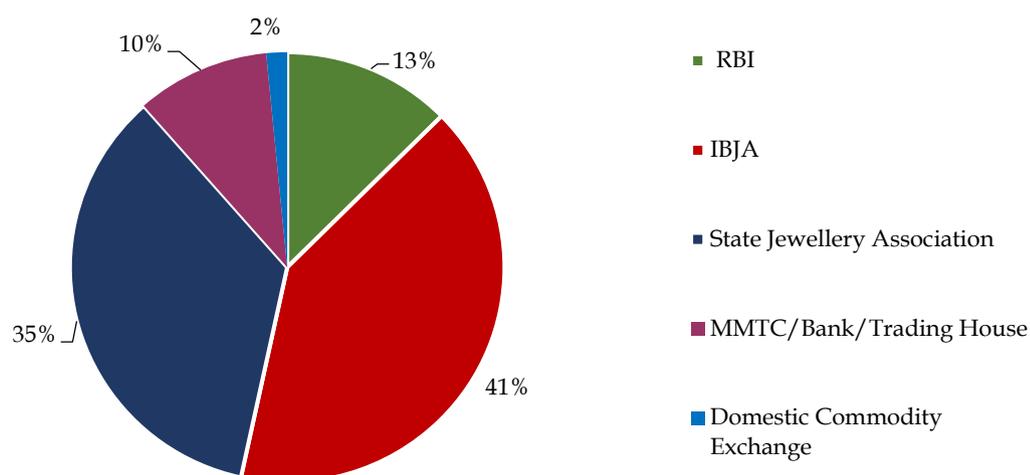


4.2 Benchmarking the Price of Gold

This we know that gold has no uniform price in India. It varies across channels, across cities and across product and quality type. Notwithstanding this, jewellers do fix a daily price for gold (Figure 4.6). The majority of the jewellers use the Indian Bullion Jewellers Association's (IBJA) or other state jewellery association's reference price to fix their own daily price of gold. While 13 per cent said they use RBI's price of gold as a reference, only a meagre 2 per cent stated that they look to domestic commodity exchanges to fix their price. What does appear surprising from the survey is that even the large jewellers, those with turnovers of INR 10 crore, seem to look to jewellery associations for their reference price

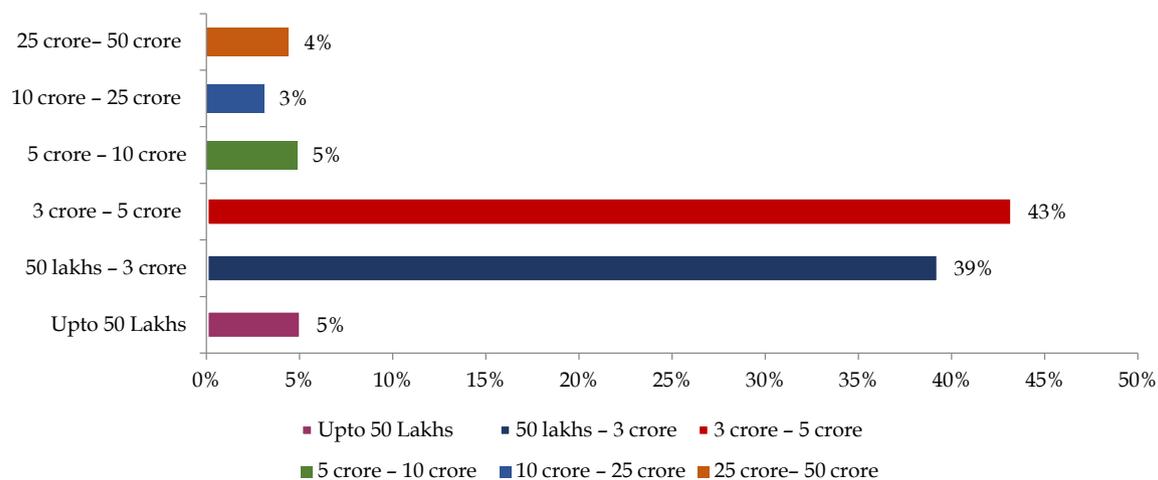
(Figure 4.7). It is the medium size jeweller, or turnover INR 50 lac to INR 5 crore, that look to domestic commodity markets for setting their price. This may be due to the fact that large jewellers are aware of the price fixing methodology of their respective associations. More often than not, these associations incorporate the price of the exchanges into their price fixing mechanism. Smaller jewellers that are probably not part of any association or have inadequate access to association information look to the exchange to set their prices, since that information is more readily and easily available. The other surprising factor is that a large part of the sample that continues to trade on domestic commodity exchanges do not necessary draw their prices from the exchanges.

Figure 4.6: Reference for Fixing Price of Gold(N=453)



Source: PIF- BRIEF SURVEY

Figure 4.7: Reference for Fixing Price of Gold by Turnover (N=453)



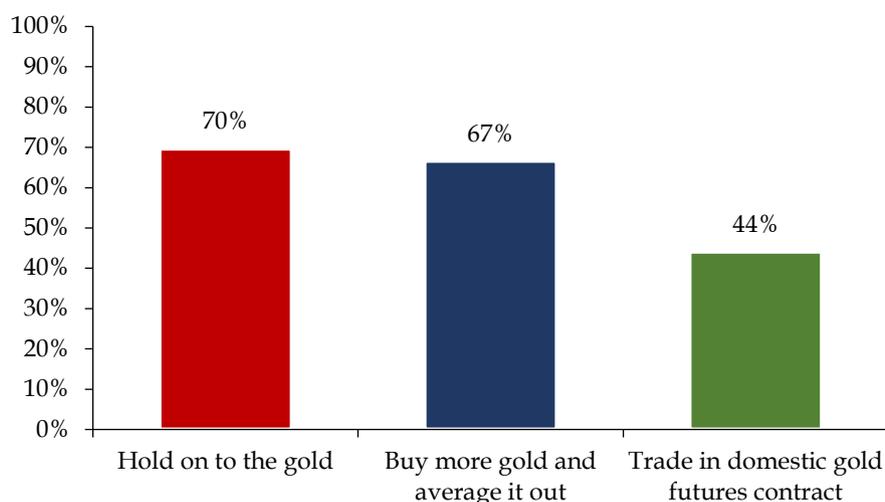
Source: PIF- BRIEF SURVEY

4.3 Countering Price Risks

Hedging price risk is an important part of the jeweller’s business. When the respondents were asked how they hedge their price risks, 70 per cent said that they hold on to their gold (Figure

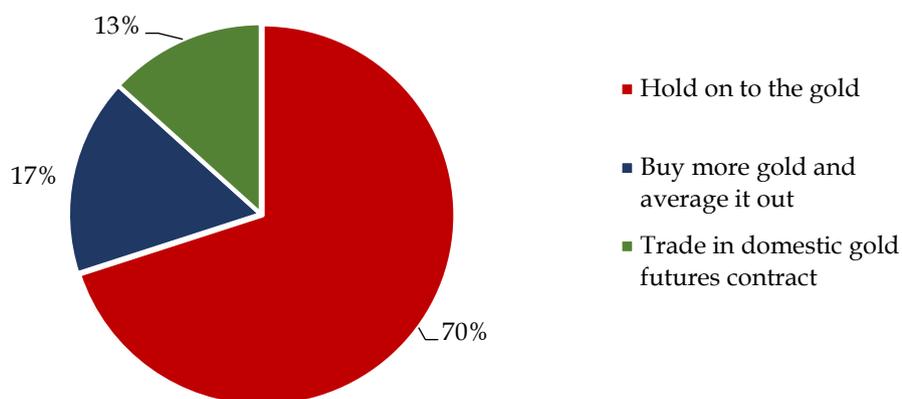
4.8). Only 44 per cent stated that they trade on the exchange to hedge. What is indeed interesting is that only 13 per cent of the 44 per cent chose hedging their risks on the exchange as their first choice (Figure 4.9).

Figure 4.8: Means of Hedging Price Risk (Multiple Responses) (N=453)



Source: PIF- BRIEF SURVEY

Figure 4.9: Means of Hedging Price Risk (First Response) (N=453)



Source: PIF- BRIEF SURVEY

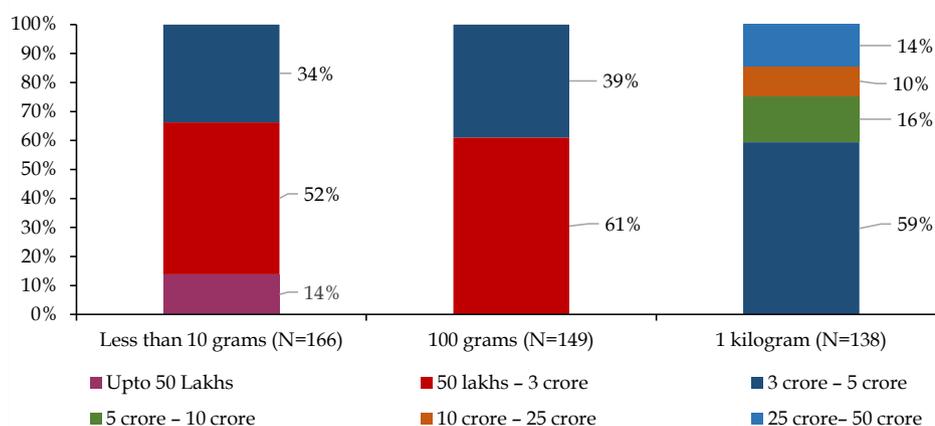
This is indicative of the current state of gold futures in India. When CTT was first introduced, the idea was to minimise speculation and encourage hedgers. In truth, the converse seems to have happened. Speculators have been able to continue to trade on the exchange because they are able to bear the incremental cost, even though they are affected the first. Hedgers, on the other hand, have moved away from the market because of increased costs and have resorted to traditional methods of

hedging price risk – holding gold or purchasing more gold.

4.4 Why Trade – Links between Business Cycle, Size, and Hedging Preferences

The common gold futures traded were those of <10g, 100g and 1kg (Figure 4.10). The INR 50 lacs to INR 3 crore and the INR 3 crore and INR 5 crore

Figure 4.10: Preference for Type of Gold Contract by Turnover (N=453)



Source: PIF- BRIEF SURVEY

trade across all categories of the contract. The fact that the <10g contract has relatively large turnover participants indicates that the aforementioned categories of respondents trade in this particular type of contract for speculative purposes. The 100g and the 1kg contracts are what are used primarily for their business needs. Not surprisingly, the respondents with the smaller turnovers only deal in the <10g contracts. Similarly, the above INR 5 crore turnover respondents only trade in 1kg contracts. These choices are consistent with usual gold buying patterns, in terms of quantity, of jewellers.

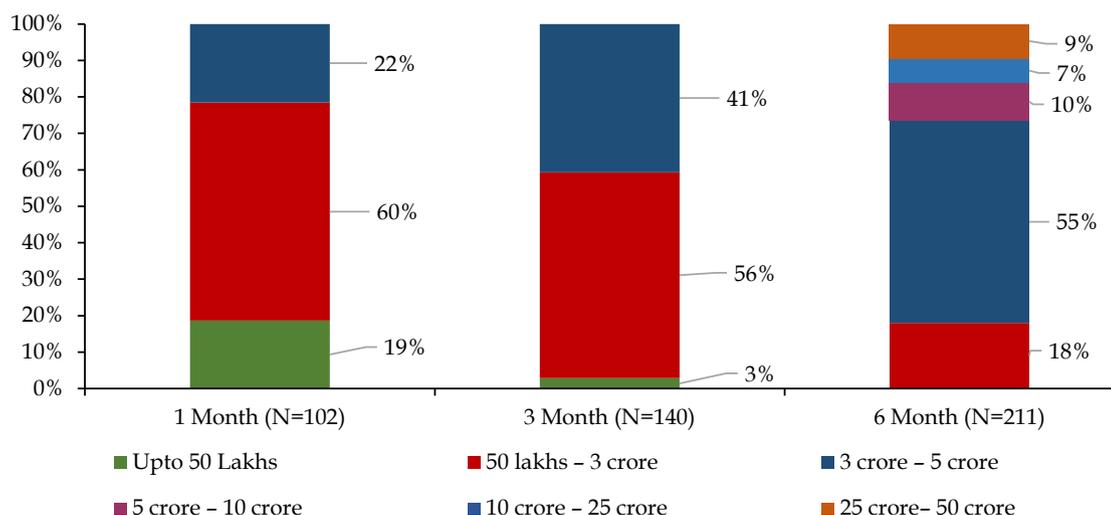
The 6 months contracts were more popular than the 3 months or 1 month (Figure 4.11). Even though the 1 month contracts are the most liquid, there is greater participation in the 6 months contracts. This may be attributed to two possible reasons. One, the business cycle for jewellers is believed to be 6 months. Two, the tenure of the Gold Metal Loan (GML) too is 6 months. Jewellers choose to hedge their risks for these two purposes. Hence their preferred period of contract is also 6 months.

That the smaller turnover respondents stick to only 1 month and 3 months contracts is no surprise. For similar reasons as stated below, business cycles for these type of jewellers tends to be for shorter durations, usually 3 or 6 months. The size of turnover of the respondents seems to dictate their choice of tenure of contract. Typically, larger the turnover, longer the business cycles.

This is also in line with business cycles of jewellers. Most jewellers settle before delivery date, very few hold contracts till delivery. Of the sample, most jewellers who continue to trade on the exchange use it as a measure to hedge their risks in the spot market.

The three most common reasons cited by all respondents for beginning to trade on the exchange were for speculative purpose, for hedging risks and to take advantage of arbitrage opportunities that arise between spot and futures market (Figure 4.12). Other reasons cited were access to better quality of gold, no counterparty risk and for price discovery, clearly indicating a class of conversant traders. It was seen if education has a bearing in the

Figure 4.11: Preference for Duration of Contract by Turnover (N=453)



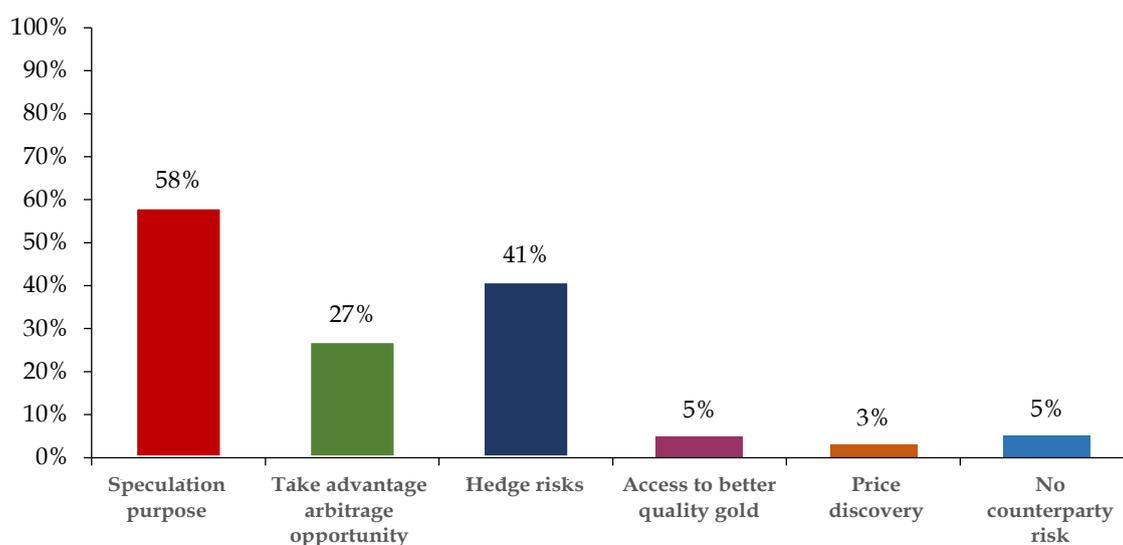
Source: PIF- BRIEF SURVEY



choice of reason for trading on the exchange (Figure 4.13). However no discernible connection between education and reasons for trading was observed. This maybe because jewellery businesses in India are mostly family run businesses. Therefore, it is

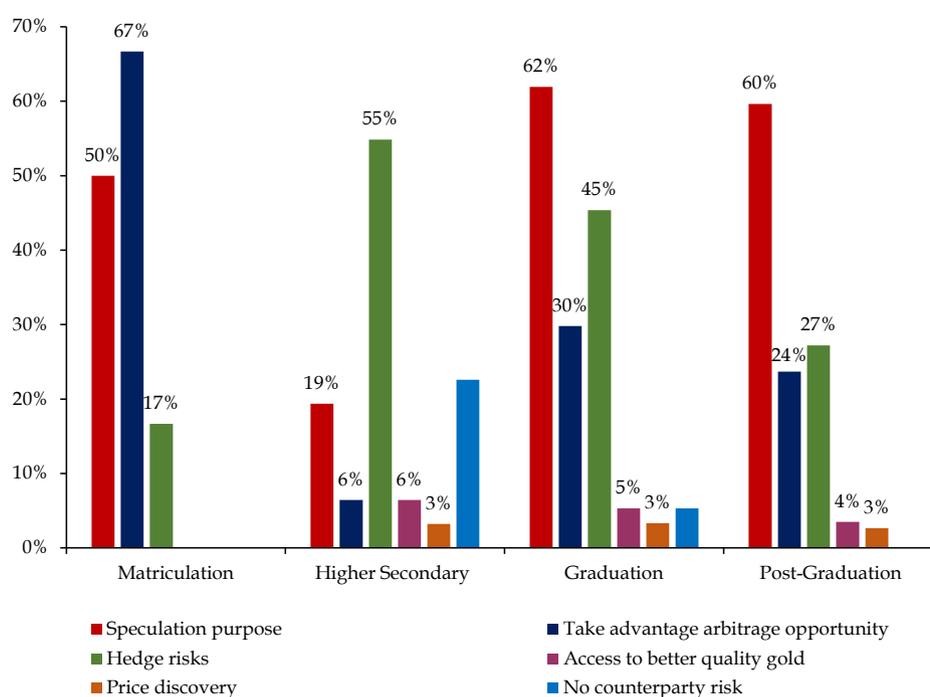
more than likely that business related knowledge and skills, including their reasons for trading on the exchange, may have been learned as part of learning the business and not necessarily because of their educational qualification.

Figure 4.12: Reasons for Starting Trade on Exchange (Multiple Responses)



Source: PIF- BRIEF SURVEY

Figure 4.13: Reasons for Trading vis á vis Educational Qualification (N=453)



Source: PIF- BRIEF SURVEY

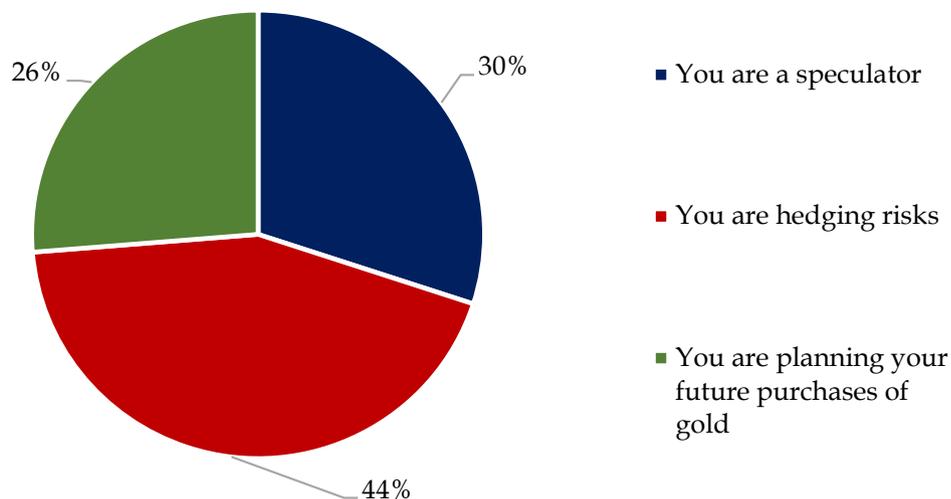
Interestingly, when respondents were asked why they continue to trade on the futures market, there was a shift of purpose from that of speculation to that of hedging price risk (Figure 4.14). The percentage of respondents who cited speculation as the reason for beginning to trade at 58 per cent on the exchange shrunk to 30 per cent when asked why jewellers continue to trade on the exchange. Moreover there is an increase in the percentage of respondents who cite hedging risks as the reason from 41 per cent to 44 per cent.

When the 153 jewellers were asked why they stopped trading on the exchange, an overwhelming 55 per

cent cited CTT and increased cost of transaction as reasons without being prompted. A distant second was that they lost money on the market (Figure 4.15).

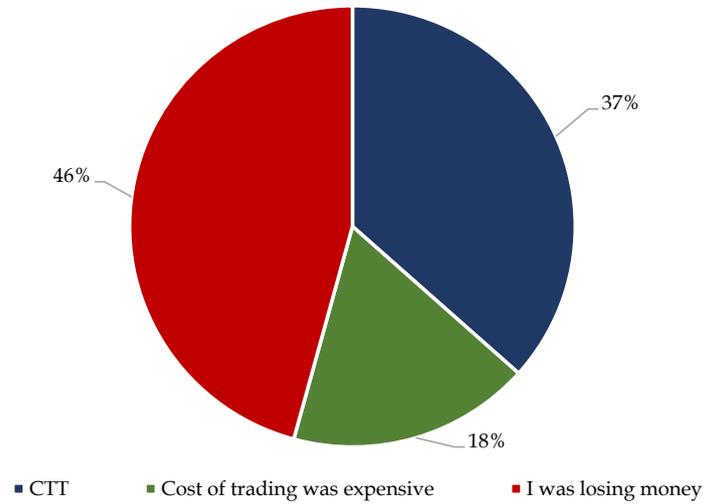
In order to further validate the responses of erstwhile traders, the month and year of their last transaction was recorded (Figure 4.16). April 2013 saw the most number of people exit the market, immediately post the announcement of CTT during the 2013 budget. Even as early as February 2013 there were many who exited the market based on rumours of CTT that had surfaced. By April 2014, a year since the introduction of CTT, 86 per cent of 153 erstwhile traders had exited the futures market.

Figure 4.14: Purpose of Trading on Exchange (N=453)



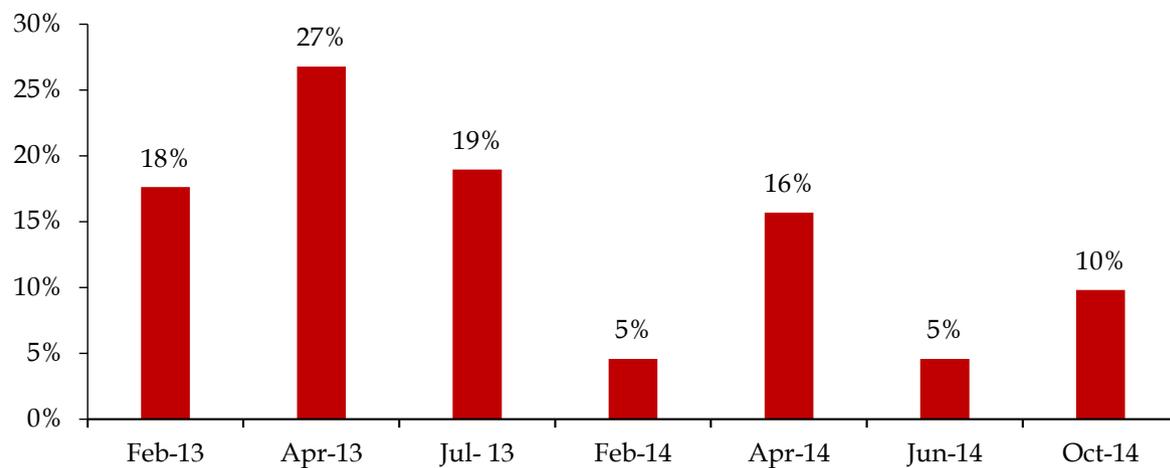
Source: PIF- BRIEF SURVEY

Figure 4.15: Reason for Stopping Trade on Exchange (First Responses) (N=153)



Source: PIF- BRIEF SURVEY

Figure 4.16: When Stopped Last Time Traded in (Last Month of Transaction) (N=153)



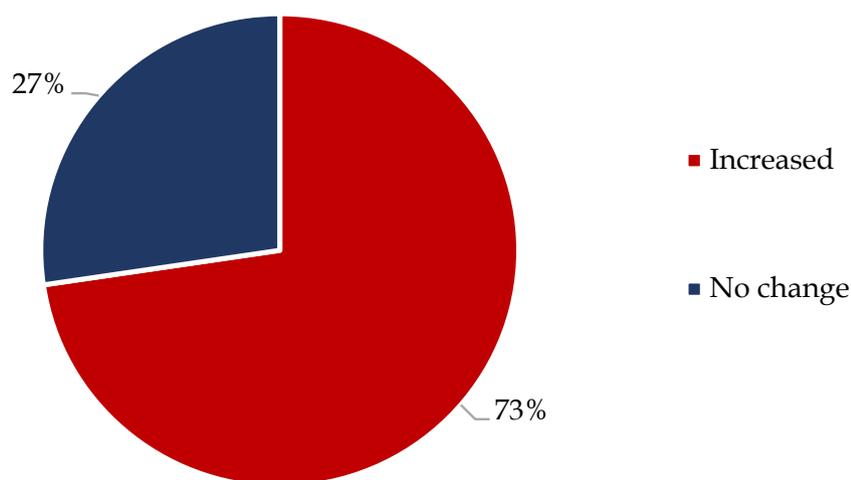
Source: PIF- BRIEF SURVEY

4.5 Cost of Transaction

The 300 respondents currently trading on the gold futures market, 73 per cent stated that compared to 2012-13, their cost of transactions had increased (Figure 4.17). Respondents were asked to provide a detailed break-up of their costs of transaction (Table 4.1). There is consistency in the responses with regard to minimum and

maximum values given to all heads of costs barring one – brokerage fee. Brokerage fees vary from a minimum of 0.05 per cent to a maximum of 0.20 per cent. This means that a significantly higher brokerage fee can be the primary reason for driving up transaction cost and not just CTT. As per the survey responses, this number corresponds to 2 per cent (Figure 4.18).

Figure 4.17: Change in Cost of Transaction Compared to 2012-13 (N=300)



Source: PIF- BRIEF SURVEY

Table 4.1: Cost of Transaction (N= 453)

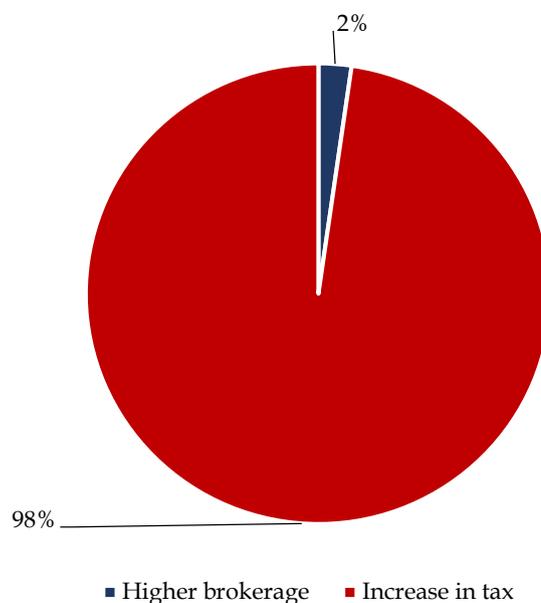
Particular	Min	Max
Transaction Fee	0.25%	0.26%
Clearing Fee	0.02%	0.02%
Brokerage Fee	0.05%	0.20%
Stamp Duty	0.01%	0.01%
Service Tax	15.00%	15.00%
Commodity Transaction Tax (CTT)	0.01%	0.02%
Regulatory Fee	1.20%	1.20%
Delivery Fee Charges (INR)	200	210

Source: PIF- BRIEF SURVEY

It must be noted that during this period, the only change in taxation has been the introduction of CTT. Nearly 50

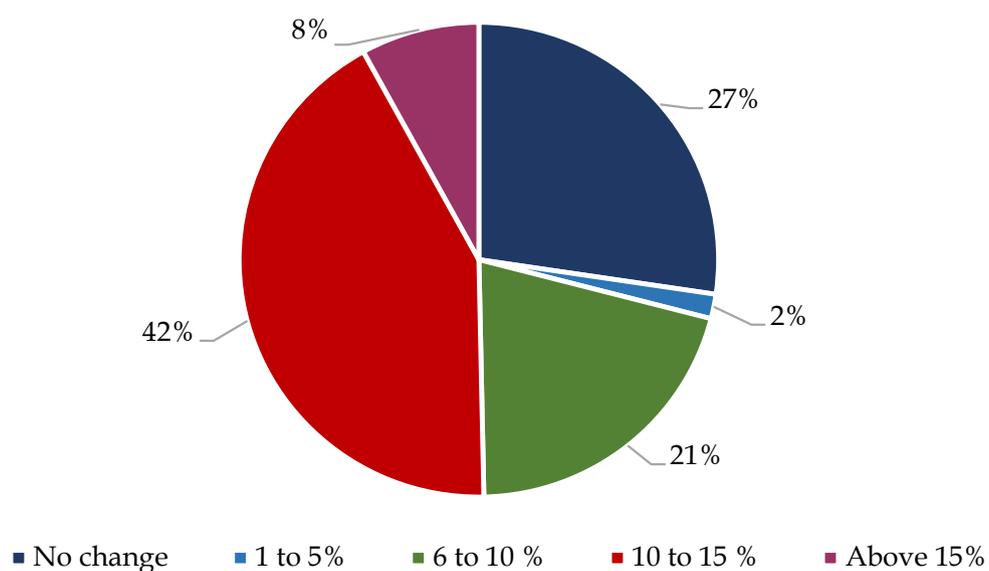
per cent of the 300 respondents stated that their costs increased by around 15 per cent (Figure 4.19).

Figure 4.18: Reasons for Increase in Costs of Trading Slide 29 (N=218)



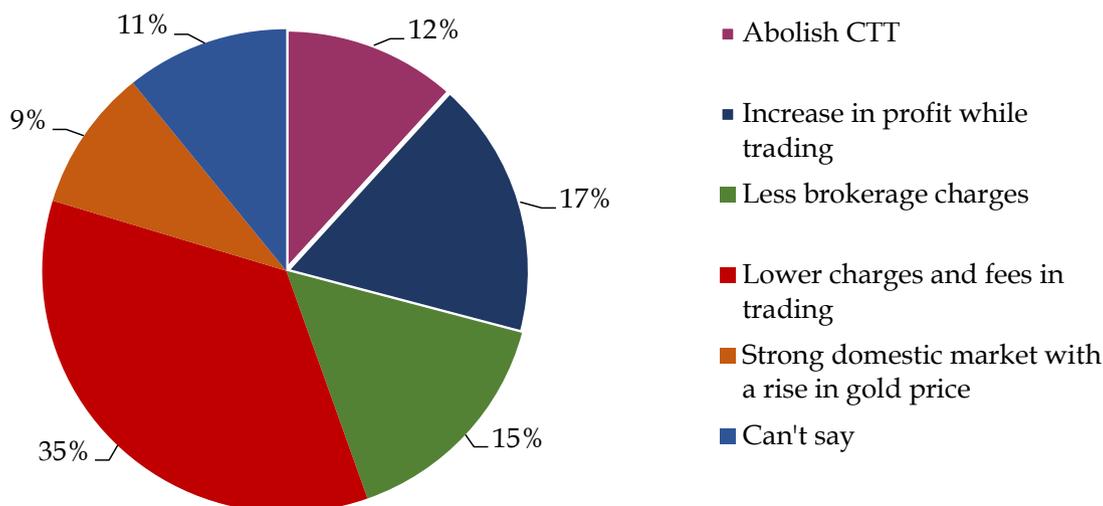
Source: PIF- BRIEF SURVEY

Figure 4.19: Percentage Increase in Cost of Transaction Compared to 2012-13 (N=300)



Source: PIF- BRIEF SURVEY

Figure 4.20: What Would Induce Respondents to Trade Again/More (N=453)



Source: PIF- BRIEF SURVEY

The reasons for jewellers exiting the market is clear. When asked what would encourage them to trade once again on the market, nearly half the respondents stated that reduction in taxation and charges will help. Of this, 12 per cent very specifically mentioned abolishing CTT for gold futures (Figure 4.20). Other pull factors include developing a robust domestic gold market that will result in price discovery and lower brokerage charges.

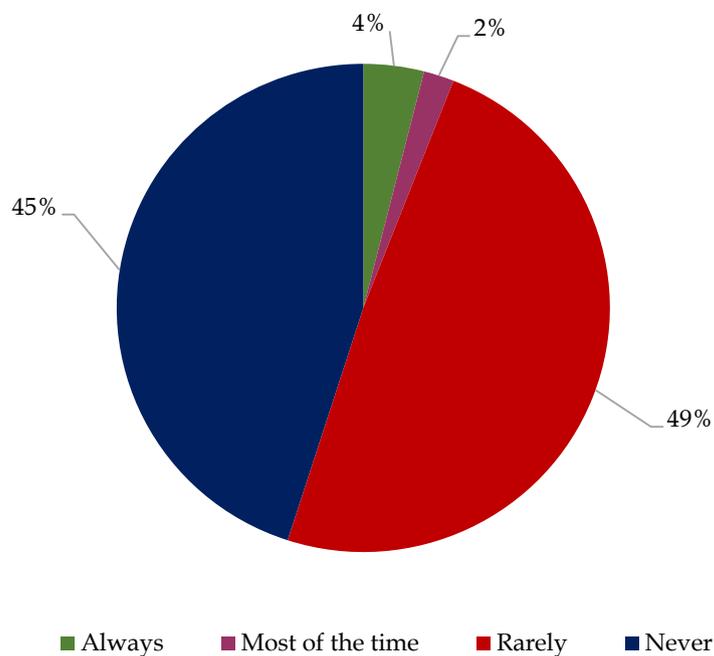
4.6 Taking Delivery of Gold

Taking delivery of a contract in futures market parlance is synonymous to holding a contract to maturity. When delivery is taken, it means that the gold continues to stay within the vaulting system; the

gold does not physically leave the vault. Gold that has exited the vaulting system cannot come back on to the exchange. This is because, the quality of gold and caratage cannot be guaranteed when it exists the vault. The underlying gold that lies in these vaults meet the London Good Delivery norms. This means that they are either imported or that they have been domestically procured from the sole London Bullion Market Association accredited refinery in India - MMTC PAMP.

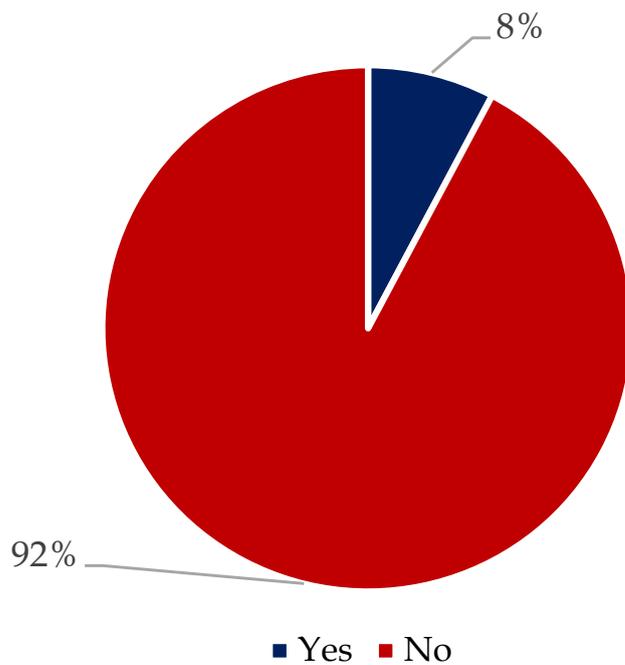
Contracts are very rarely held till maturity (Figure 4.21). This is typical of all international futures markets. In our sample, only 8 per cent actually took delivery of gold the last time they traded on the exchange (Figure 4.22).

Figure 4.21: How Often Do You Hold a Contract to Maturity? (N= 453)



Source: PIF- BRIEF SURVEY

Figure 4.22: Whether Delivery was Taken on Last Trade (N=453)

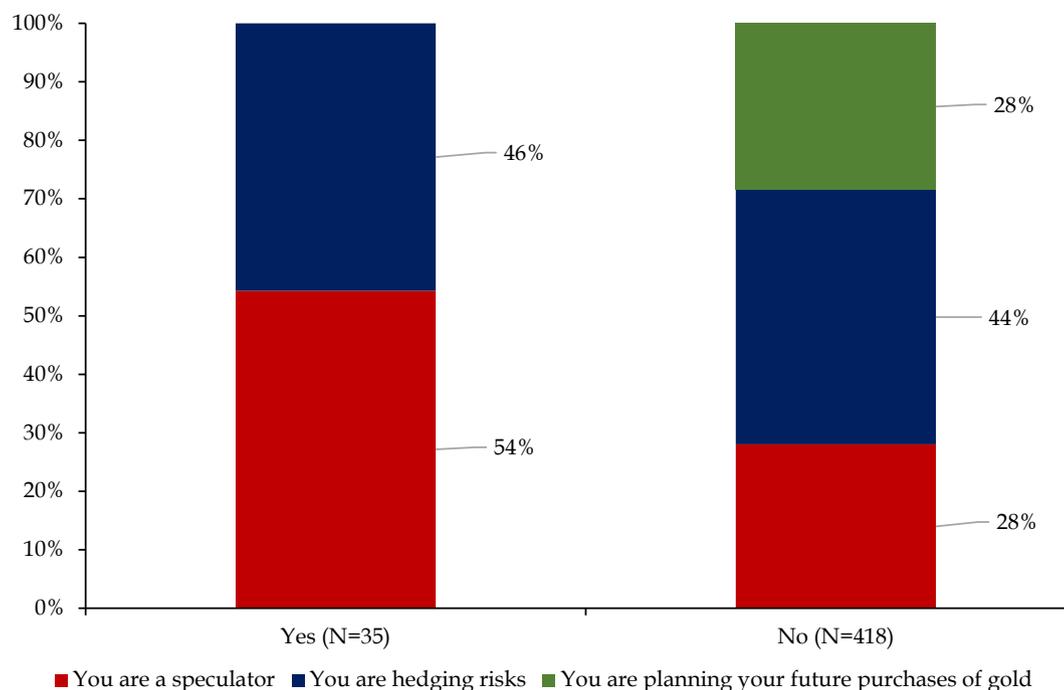


Source: PIF- BRIEF SURVEY

As already discussed, respondents trade on the exchange to either plan their future purchases, to hedge risks or to speculate. Those who seem to be planning their future purchases of gold seem to prefer not to take delivery of the gold (Figure 4.23). This might seem counter intuitive. However, it would make sense to trade the contract rather than take delivery if hedging requirements are met for gold that is bought in the physical market.

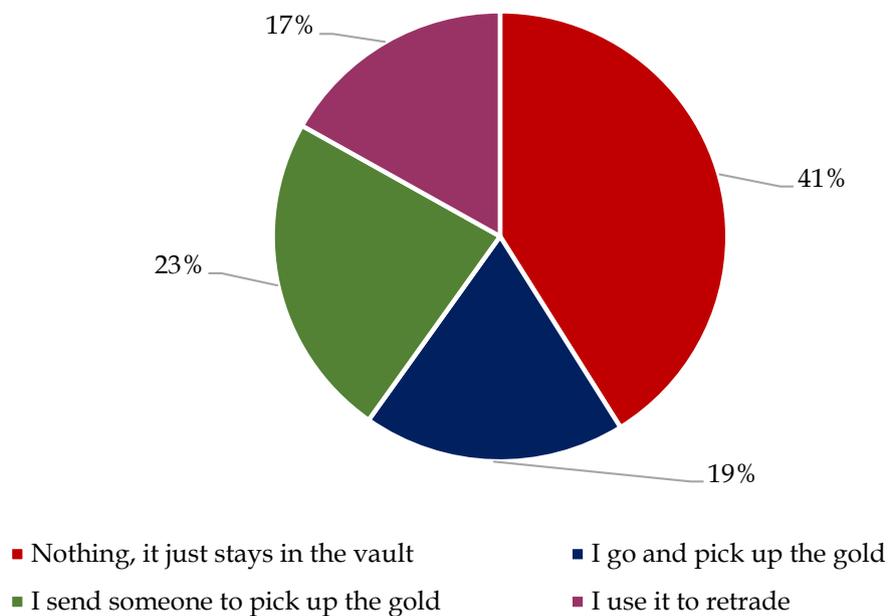
Of those who do take delivery of gold, 41 per cent allow the gold to remain in the vaults (Figure 4.24), but a rare few choose to move the gold out of the vaults (Figure 4.25). This they do, according to the survey, mainly to hedge their risks in the physical market or to meet their physical requirements of gold for their business. In these rare cases, the 36 per cent that do use the physical gold for their business needs, use the exchange as a means to procuring gold.

Figure 4.23: Reasons for Trading on Exchange *viz á viz* If Delivery of Gold was Taken on Last Trade (N=453)



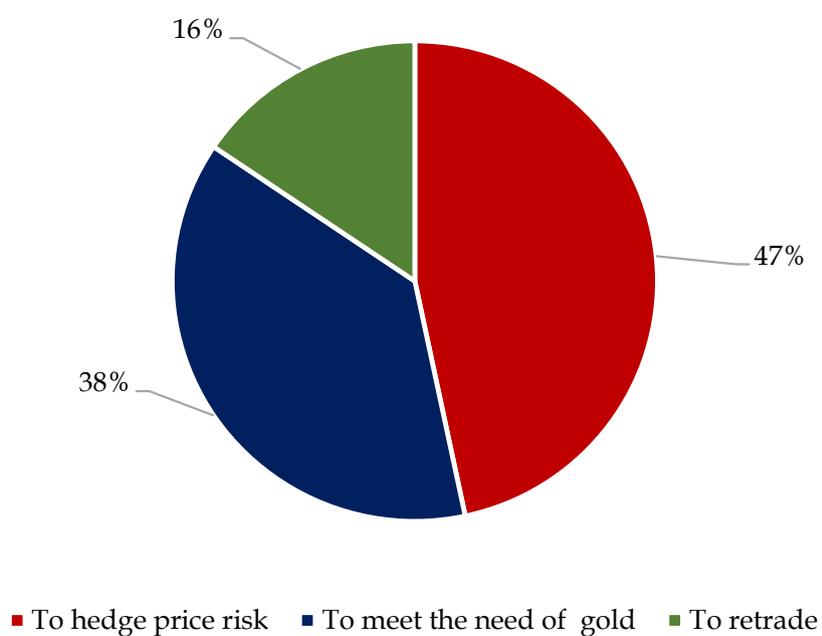
Source: PIF- BRIEF SURVEY

Figure 4.24: What do you do with Gold Taken Delivery of? (N= 107)



Source: PIF- BRIEF SURVEY

Figure 4.25: Reasons for Moving Gold out of Vault After Delivery (N=45)

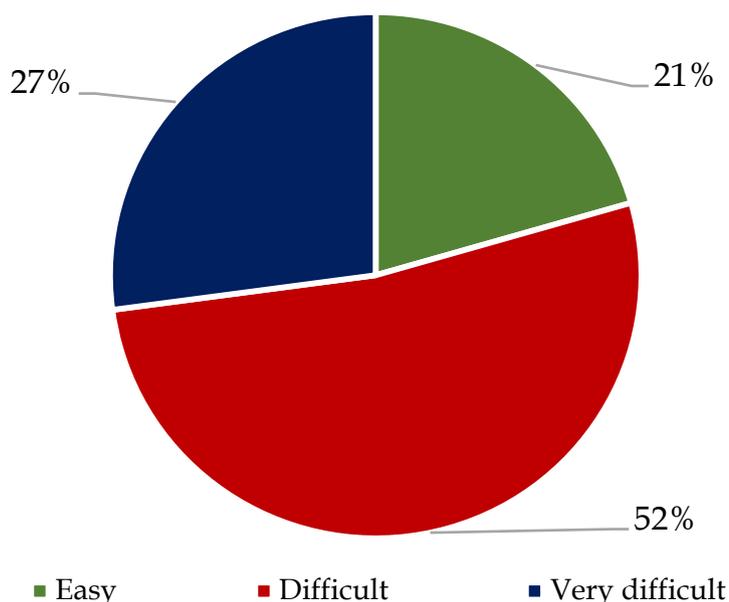


Source: PIF- BRIEF SURVEY

The majority of the sample, nearly 75 per cent, stated that taking physical delivery of gold is difficult (Figure 4.26). However, the solution to this does not necessarily seem to be in increasing the number of vaults. Only 47 per cent of the

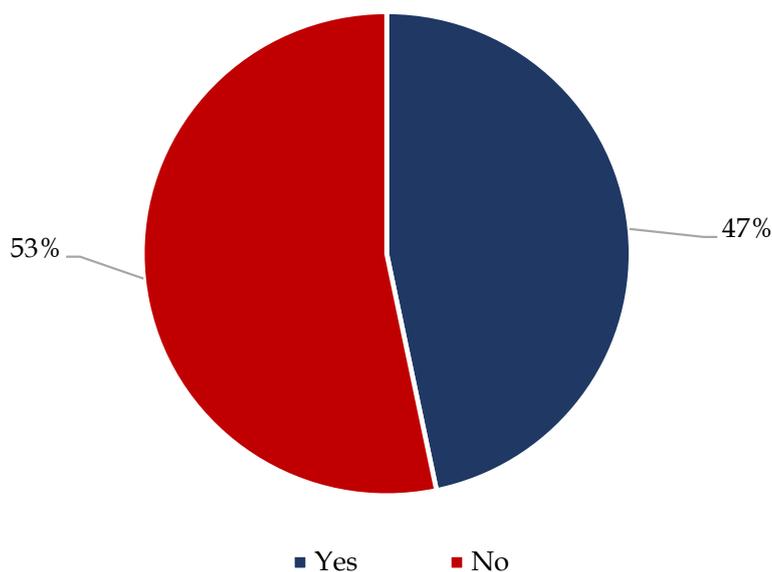
respondents seemed to think that this would ease taking physical delivery of gold (Figure 4.27). The impact of easier physical delivery and the means to facilitate the same is an area that merits closer attention.

Figure 4.26: Difficulty in Taking Delivery of Gold (N= 107)



Source: PIF- BRIEF SURVEY

Figure 4.27: Will More Vaults Improve Taking Physical Delivery (N= 107)



Source: PIF- BRIEF SURVEY



5. Recommendations

5.1 Summary of Results

The purpose of this survey was to understand, through the survey, the role of gold futures market in India. Commodity derivatives market cannot and should not be viewed as the same as securities market. The fundamental difference between the two is that securities market is purely for speculation, while commodity derivatives market plays an important role in price discovery for the underlying commodity as well as in hedging risks. The gold futures market had been a market of speculators and hedgers. It was the medium through which risks were hedged. It also helped in price discovery to a large extent. All this changed with the imposition of CTT. The purpose of CTT was to introduce a transaction tax that was at par with the stock markets. In this context, the survey results offer fairly conclusive findings.

First, that it was a challenge to find jewellers who continue to trade on the exchange was in itself a finding. The sheer number of small, medium and large jewellers showcases the potential for growth of the gold futures market. Yet, the difficulty in finding jewellers trading on the exchange, demonstrates how India has not been able to channel this potential into growth.

Second, the fundamental function of commodity derivatives market is to help with hedging risks. The gold futures market is no different. While the primary reason for trading on the gold futures market may be for speculation, data also clearly shows that hedging or price risk and access to better quality of gold are also important reasons for trading on the gold futures exchange. Infact, data also reveals that the longer one trades on the exchange, it is the opportunity to hedge risks that keeps jewellers trading and not mere speculation. However, costs of trading have clearly pushed jewellers out of the market. This has two consequences. First, jewellers are deprived of a formal financial mechanism for hedging and instead are forced to adopt informal methods such as

hoarding gold. Second, even those who were initially able to bear the increase in trading costs, eventually had to leave the market because with hedgers exiting, volumes off trade reduced drastically.

Third, in the absence of any kind of structured spot exchange or national spot market, the gold futures market is what one turns to for price discovery. As our results suggest, most jewellers depend on jewellery associations as benchmark from which they derive their own daily prices. In the absence of a uniform India Price Fix, this way of arriving at gold prices may seem prudent, but this is also the reason why gold prices in India varies by channel of sale and geography. Up until such a time that a national spot exchange or platform is created, the gold futures market can become that one uniform benchmark from which all other prices are derived from. The exchange is also a good benchmark because it automatically adjusts itself to international and domestic information transmission. As per our survey, the gold futures markets are used by very few for price benchmarking. Interviews with jewellers also suggested that many jewellers who once looked to the gold futures market, do not any more, mainly due to drastic falls in trading volumes.

Fourth, the direct impact of imposition of CTT is threefold. First, many jewellers exited the futures market because of high cost of transaction. Volumes also dropped significantly. Second, CTT has resulted in market inefficiency because it has driven out participants and increased premiums. Third, it has prevented new players from trading on the exchange, the result of which is that gold futures market has not grown. It is quite possible that India is exporting her market to overseas commodity derivatives markets.

5.2 Recommendations

India needs a comprehensive gold policy. As a first step towards this objective, the Government of India has begun this process by introducing

gold monetisation schemes. As subsequent steps, the government must work towards creating transparency and standardisation in gold pricing and transactions. The exchange plays a central role towards these objectives.

Ideally, what India needs is a gold spot exchange or at least a national spot platform. This however will take time since India has never before envisaged either a national spot exchange or a spot platform. A recently formulated committee under the Ministry of Finance is tasked with creating a commodity market where spot and futures prices work together in the interest of better price discovery. While a suitable regulatory framework for a spot exchange or platform is being formulated, developing the existing gold futures market is equally important. Price discovery will be possible when the two markets are integrated. Accordingly, this report makes four broad recommendations.

First, CTT on gold futures must be lifted to allow for more participants to trade on the exchange. CTT has clearly increased costs of transactions and disincentivised jewellers from trading on the exchange. The mere removal of CTT, as survey results suggest, will bring back both traders and volumes into the exchange.

Second, institutional participation in the gold derivatives market must be allowed and encouraged. A beginning has been made by the recent decision of the market regulator to permit alternative investment funds (AIFs) to trade in the commodity derivatives market. Likewise, other financial institutions such as mutual funds, banks, insurance companies, pension funds must also be eventually allowed in this market. Globally, the gold derivative market is quite advanced with many products, such as, futures, forwards, options, total return swaps, structured notes. New products need to be introduced in India too and made accessible to institutional and retail participants. The more important reason for permitting them would be to bring in more

heterogeneity in participation in the gold derivatives market, infuse more liquidity in the system, and in the process, smoothen the entry and exit barriers in the market through lowering of impact costs (and bid-ask spread), thereby enhancing the hedging efficiency through better risk management.

Permitting some specific institutions, viz. the bank-sponsored broking houses, which have the greatest spread of their distribution network, is critical. Their reach, customer base, access to superior technology and research-based trading advisory services make them eminently suitable to distribute gold derivative products, if permitted. Measured in terms of the number of Unique Client Codes, bank-owned brokers, as a group, have connected the largest number of clients to the equity market in India; there is no reason why this success cannot be replicated in the gold derivatives market as well.

Likewise, banks/bank subsidiaries need to be permitted to trade and offer clearing and custodial services in the gold derivatives market. Given the capital and technological wherewithal of the banks and their subsidiaries, vis-à-vis the other institutions, the entry of large financial and non-financial institutions in gold derivatives market can be ensured in the presence of the former category of clearing/ custodial institutions only. Else, the entry of AIFs, Mutual Funds and such other institutions may remain a non-starter.

Third, the gold derivatives market needs to be made a more integral part of gold monetisation. For this, the following needs to be actively considered:

- **Allowing banks to hedge on domestic exchanges**
- The government must consider allowing banks to hedge on domestic commodity markets. Banks are an integral part of gold monetisation and one of the reasons why they have been apprehensive to get completely involved in the business of gold has been due to insufficient risk management avenues and due to the lack



of standardisation and transparency. What would be a travesty is banks hedging their risks on a commodity exchange in any International Financial Centre in India, which banks are very likely to do if they are not allowed to hedge on domestic exchanges. Allowing banks to hedge on domestic exchanges will mean bringing in a large volume of institutional participation. This is a sure shot way of increasing trading volumes. Recently, RBI has allowed banks to hedge on both international markets and domestic commodity exchanges for the purpose of Gold Monetisation Scheme (GMS). However, in the absence of clear guidelines on hedging practices banks are hesitant to participate on commodity exchanges. Hence, RBI should take proactive measures to issue specific guidelines for better participation of banks in the GMS.

- **Using exchange-traded gold derivative prices as reference prices** - Domestic commodity derivatives markets have matured over the last 12 years. It has now been proven beyond doubt that the commodity derivatives contribute to price discovery in a scientific and fair manner. Hence, gold prices as discovered and disseminated by the domestic commodity exchanges should be taken as reference by banks and financial institutions.

Fourth, in the absence of warehousing norms, for exchange-accredited vaults storing gold for delivery, it is not possible for these vaults to issue negotiable warehouse trading receipts. Even though currently vaulting norms are being laid down by the exchanges in line with regulatory requirements, these vaults are not permitted to issue warehouse receipts without being accredited by the Warehouse Development and Regulatory Authority of India (WDRAI). Hence WDRAI should be allowed to regulate and register vaults that store gold. Currently, WDRAI is allowed

to register and regulate warehouses of only those commodities that are notified by the Department of Food and Public Distribution. This Department may also notify gold (or any other precious metal) as one such commodity for which WDRAI can register and regulate vaults.

Uniform and standardised norms for gold vaults will not only bring about standardisation and transparency in gold transactions but also pave the way for new financial products such as warehouse trading receipts that can all be traded on the exchange. This will also incentivise the growth of vaults that store precious metals.

Apart from the above policy recommendations, our observations and findings from the survey lead us to also make the following two recommendations for the gold derivatives exchanges.

First, that it was a challenge to find jewellers who continue to trade on the exchange, calls for more intense efforts at raising awareness among prospective market participants across the country. Domestic exchanges may like to re-visit the strategies they have been following so far to spread awareness about the need and benefits of hedging on exchange-traded platforms and fine-tune such strategies on the back of the feedback and experiences they would have gathered from the field in course of spreading such awareness campaigns.

Second, physical delivery norms for gold must be eased. As observed in Section 2, nearly 75 per cent of the survey's respondents stated that taking physical delivery of gold is difficult, although the solution to this does not necessarily seem to be in increasing the number of vaults. Gold derivatives exchanges need to probe this issue further and explore the possible reasons and their solutions for easing the physical delivery of gold to market participants.

References

- ⁱ Lucey, B., Larkin, C. and O'Connor, F., 2012, London or New York: Where Does the Gold Price Come From?, *Applied Economics Letters*, 20, 813-817.
- ⁱⁱ Hauptfleisch, M., Putniņš, T.J. and Lucey, B., 2013, Who sets the price of gold? London or New York, [online]. Available from: https://acfr.aut.ac.nz/__data/assets/pdf_file/0009/29790/T-Putnis-GoldILS-v4.3.pdf (accessed on 23 March 2017)
- ⁱⁱⁱ Sieron Arkadiusz, 2016, Who Sets the Gold Price?, [online]. <http://www.kitco.com/commentaries/2016-03-28/Who-Sets-the-Gold-Price.html> (accessed on 23 March 2017)
- ^{iv} Chidambaram, P., 2013, Minister of Finance Speech Presenting Union Budget for the Year 2013-14 on February, 28, 2013
- ^v Velmurugan, PS and Perumalraja, R., 2016, Negative Impact of CTT on Gold Futures traded in MCX: Analysis of Evidence using Impulse Response Function, Pondicherry University
- ^{vi} Velmurugan, PS and Champramary, R., 2016, CTT infuses inefficiency into Gold futures trading: An empirical Analysis, Pondicherry University
- ^{vii} Velmurugan, PS and Kodiyathur, I., 2016, Impact of Commodity Transaction Tax on Liquidity and Volatility of Gold Futures traded at MCX, Pondicherry University
- ^{viii} Study on Economic Impact of Commodity Futures Market in India - Functions and Contributions; Deloitte, Touche Tohmatsu India Private Limited (DTTIPL) and Confederation of Indian Industry (CII)
- ^{ix} Pavaskar, M. and Ghosh, N., 2008, Commodity Transaction Tax: A Recipe for Disaster, *Economic and Political Weekly*
- ^x Seeger, Charles M, 2013, "India's Commodity Transaction Tax: Economic Consequences and International Lessons Learnt", *Financial Markets International Inc.*





PAHLE INDIA FOUNDATION
FACILITATING POLICY CHANGE