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India's Gems & Jewelry Industry



The Kohinoor diamond – Sourced from the Golconda mines, now part of the British Crown Jewels¹

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¹ http://www.ceveni.com/2008/03/kohinoor-diamond.html

In this report, we study the investment dynamics of the gems and jewelry industry. There are approximately 2,300 publicly traded gems and jewelry companies globally (this includes miners, processors and retailers). There are 45 publicly traded gems and jewelry companies in India, the majority of which are jewelry retailers. Collectively, the total market capitalisation of Indian gems and jewelry companies is approximately USD 21 billion (Appendix 1).

The Indian gems and jewelry industry market size (annual domestic consumption and exports) is estimated to be USD 100 billion in FY12 (30% of the global market size), of which exports account for 40%. India's domestic jewelry industry grew at ~35% CAGR from USD 16 billion in FY08 to USD 60 billion in FY12 on account of increasing urbanization, a more youthful population, a prevalence of multiple-income families and more women joining the workforce. Indian jewelry exports grew at ~17% CAGR during FY08-12 from USD 20 billion in FY08 to USD 40 billion in FY12.

The Indian jewelry retail sector is highly fragmented with the share of organised retail {which we define to include national retailers with stores in multiple regions such as Titan Industries (BSE: 500114) and Gitanjali Gems (BSE: 532715)} at ~6% in FY12. This has increased from a ~4% share in FY10.³ On inclusion of regional retailers {Rajesh Exports (BSE: 531500), PP Jewellers, Malabar Gold, Kalyan Jewellers and Thangamayil Jewellery (BSE: 533158)}, the share of organised retail increases to 16-18%. The share of organised jewelry is expected to grow by more than 30% over the next 2 years from USD 10.3 billion in FY12 to USD 13 billion in FY15 due to:

- changing lifestyle with increasing preference for new and trendy designs
- guarantee for purity with the introduction of hallmarking & certifications
- brand recognition
- increasing number of stores
- new marketing techniques (such as the introduction of an EMI scheme for buying new jewelry)

Table 1 (i):	Indian g	gems and j	jewelry co	mpanie	s – Focus	list: P	erforma	ince highl	ights	
Companies (BSE: Code)	Area (sq. ft.)	Revenue (INR per sq. ft.)	EBITDA (INR per sq. ft.)	Mk Cap (USD mn)	EV/ EBITDA (x)	P/E (x)	EV (USD mn)	EBITDA (USD mn)	EPS (USD)	Return (5 yrs)
Titan Industries (500114)	450,000	153,373	18,910	4,705	27.5	39.8	4,529	165	0.13	38.0
Gitanjali Gems (532715)	800,000	60,791	11,245	992	10.0	10.4	1,726	173	1.04	7.8
PC Jewellers (534809) (a)	164,572	126,597	25,910	579	7.8	12.8	634	82	0.25	37.4
TBZ (534369) (a)	47,796	295,924	27,199	313	14.3	27.9	350	25	0.17	104.3
Tara Jewels (534756) (a)	29,949	95,496	45,143	107	8.3	10.1	216	26	0.43	(0.3)
Shree Ganesh (533180) (a)	26,400	783,152	208,788	142	1.8	1.6	195	106	1.49	(20.7)

Source: Horizon Research, (a): Return since IPO (based on 3 Jan 2013 prices)

² Based on discussions with Industry sources

³ Gitanjali Gems Annual Report 2009-10

Table 1 (ii): Companies (BSE: Code)	Indian Revenue (USD mn) FY12	gems and Rev. CAGR % 5 yrs	l jewelry (Rev. CAGR % 3 yrs	companio Gross Margin %	es – Focu EBITDA Margin %	s list: Fin Net Margin %	ancial RoA %	highlight RoC %	s RoE %	Exports (%)
Titan										
Industries (500114)	1,738	33.4	32.2	26.2	9.2	5.6	11.5	31.3	41.3	2
Gitanjali										
Gems (532715) PC	2,456	28.0	35.8	14.1	6.5	3.4	4.3	6.2	12.2	50
Jewellers (534809)	598	83.7	69.7	12.4	10.0	6.1	12.7	24.7	50.6	33
TBZ (534369)	272	35.3	27.5	15.1	6.5	2.3	10.6	14.9	78.1	Nil
Tara Jewels (534756) Shree	275	-	22.9	19.4	8.4	2.8	6.0	8.8	19.1	80
Ganesh (533180)	1,988	-	-	6.9	6.0	5.0	9.9	15.1	34.3	80

Source: Horizon Research, Capital iq

Gross margin, EBITDA margin, PAT margin, RoC, RoE, RoA, Debt/Equity are based on the last 5 years average (FY08-12)

Aggregate revenue of jewelry retailers included in our focus list (Table 1) grew at a CAGR of 28% in the last 5 years, from USD 3 billion in FY07 to USD 10.3 billion in FY12 and by 32% in the last 3 years from USD 4.5 billion in FY09 to USD 10.3 billion in FY12. The 5 year (FY08-12) median EBITDA and net margin of companies in our focus list (Table 1) is $^{\sim}$ 7.5% and $^{\sim}$ 3%, respectively which is higher than the EBITDA margin and net profit margin for all jewelry retailers (Appendix 1) of $^{\sim}$ 6% and $^{\sim}$ 2.5%, respectively.

Tribhovandas Bhimji Zaveri (TBZ) (BSE: 534369), PC Jewellers (BSE: 534809) and Tara Jewels (BSE: 534756) made a public offering (IPO) in 2012, which was oversubscribed by 1.15x, 6.85x and 1.98x, respectively. All three plan to utilize the IPO proceeds predominantly for expansion of their retail network (Table 2).

Table 2: IPO proceeds (INR million)		
Particulars	TBZ	PC Jewellers	Tara Jewels
Funds required for establishment of new showrooms	1,796	5,168	665
Funds raised through IPO (b)	2,000	6,012	1,500
Number of stores (Current)	14	30	30
New stores to be added (additional)	43 by FY15	20 by FY14	20 by FY13
Source: Horizon Research, IPO prospectus, (b): Tara Jewels IPO fund e	excludes INR 700 million	raised through offer to	or sale

GLOBAL GEMS AND JEWELRY INDUSTRY

The market size of the global gems and jewelry industry (jewelry consumption) was estimated to be ~USD 300 billion in 2011. Consumption of gold jewelry (including bar & coins) was estimated to be USD 135 billion (i.e. 45% share) and consumption of diamond jewelry was estimated to be USD 120 billion (i.e. 40% share). Precious stones, silver, pearls and platinum consumption was estimated to be USD 45 billion (i.e.15% share).

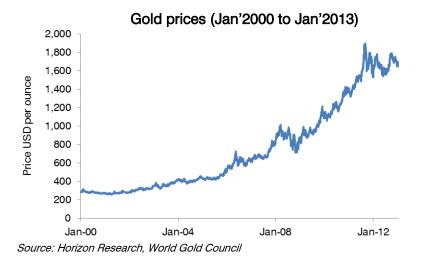
The US with a 40% share ($^{\sim}$ USD 120 billion) and India with a 30% share ($^{\sim}$ USD 100 billion) are the largest jewelry markets. China and Japan with a 10% share each and the Middle East, UK, Italy and Turkey are other large markets. There has been a fundamental change in relative demand over the past decade, with an increasing share of demand arising from emerging markets such as India and China. The global consumption of jewelry is expected to reach USD 350 billion by the end of 2015. 5

Major products - A) Gold

Consumption

Consumption of gold grew at $^{\sim}3\%$ CAGR to 4,067 tonnes in 2011 from 3,587 tonnes in 2007. During the same period in value terms, consumption of gold grew at $^{\sim}26\%$ CAGR to USD 205 billion in 2011 from USD 80 billion in 2007. Gold prices increased by $^{\sim}23\%$ CAGR from USD 695 per ounce in 2007 to USD 1,572 per ounce in 2011 and reached an all-time high price of USD 1,895 per ounce in September 2011 (Figure 1).





Consumption of gold jewelry declined at a CAGR of $^{\sim}5\%$ from 2,423 tonnes in 2007 to 1,963 tonnes in 2011. Consumption of jewelry constitutes $^{\sim}48\%$ of overall consumption of gold. Gold bars & coin investment increased at a $^{\sim}36\%$ CAGR from 434 tonnes in 2007 to 1,487 tonnes in 2011 and currently constitutes $^{\sim}37\%$ of overall consumption of gold. The technology industry, which includes electronics, dentistry and other industrial products, has an 11% share in overall consumption of gold and the remaining 4% is consumed by exchange traded funds (ETF). (Table 3)

⁴ Gitanjali Management

⁵ Source: Gitanjali Annual Report FY11

⁶ Gold ETFs buy real gold (physical gold), store it and then issue shares which may be in paper or dematerialized form, based on the market price of gold.

Table 3:		Jewe	lry and bar 8	k coin cons	sumption for 201	1	
Countries	Jewelry (tonnes)	Growth	Bars & coins (tonnes)	Growth	Consumption (tonnes)	Growth	% of global consumption
India	567.4	(14)	366.0	5	933.4	(7)	27.1
China	510.9	13	258.9	<i>38</i>	769.8	20	22.3
US	115.1	(11)	79.9	(25)	194.9	(17)	5.6
Turkey	63.8	(10)	80.4	99	144.2	30	4.2
Middle East	165.8	(19)	34.0	15	199.8	(15)	5.8
Top 5	1423.0		819.2		2,242.1		65.0
Overall	1,962.9	(3)	1,486.7	24	3,450.0	7	

Source: Horizon Research, World Gold Council, Growth is over 2010

173.8 122.4

Consumption of gold has increased by $^{\sim}27\%$ (from 578 tonnes in 2009 to 933 tonnes in 2011) and $^{\sim}29\%$ (from 458 tonnes in 2009 to 770 tonnes in 2011) in India and China respectively whereas US consumption declined by $^{\sim}14\%$ (from 264 tonnes in 2009 to 195 tonnes in 2011) during this period (Table 4).

Table 4:		Con	sumptio	n of gold	d – trend	S			
		Years	- tonne	s			CAGI	P - %	
Countries	2000	2008	2009	2010	2011	10 yrs	2 yrs	3 yrs	1 yrs
India	723.0	712.6	578.5	963.1	933.4	3.2	27.0	9.4	(3.1)
China	212.5	392.7	457.7	579.5	769.8	11.8	<i>29.7</i>	<i>25.2</i>	32.8
USA	368.5	267.0	264.5	233.3	194.9	(5.0)	(14.2)	(10.0)	(16.5)
Turkey	177.4	210.3	107	111.1	144.2	(5.1)	16.1	(11.8)	29.8
Vietnam	55.0	115.8	73.3	81.4	100.3	4.5	17.0	(4.7)	23.2
Middle East									
(ex. Saudi Arabia)	154.2	147.2	99.1	99.8	92.7	(4.7)	(3.3)	(14.3)	(7.1)

87.5

72.2

(7.3)

(9.8) (16.1) (17.5)

Supply

Saudi Arabia

Source: Horizon Research, World Gold Council

Global gold supply increased from 3,003 tonnes in 2007 to 4,497 tonnes in 2011 (Table 5). Production from 'mines' was 2,832 tonnes ($^{\sim}$ 63%) whereas scrap/recycled gold yielded 1,665 tonnes (37%).

88.7

Table 5: Glo	obal gol	ld supp	ly (tonn	ies)		Table 6: Major	gold mining com	panies
Particular	2007	2008	2009	2010	2011	Company	Location	Production
Mine	2,473	2,407	2,611	2,739	2,822			(tonnes 2011)
production						Barrick Gold	Canada	217.7
Net	(447)	(363)	(236)	(108)	10	Newmont Mining	US	145-150
producer						AngloGold	South Africa	122.7
hedging						Ashanti		
Total	2,026	2,044	2,374	2,632	2,832	Gold Fields	South Africa	98.8
supply						Goldcorp Inc.	Canada	71.3
Recycled	977	1,146	1,735	1,719	1,665			
gold								
Total	3,003	3,190	4,109	4,350	4,497			
Source: Horizor	n Research	h, World G	Gold Counc	cil		Source: Horizon Resea	rch	

Production from gold mines has grown by 3% YoY from 2,739 tonnes in 2010 to an all-time high of 2,822 tonnes in 2011 on account of rising gold prices. Recycled gold production declined from 1,719 tonnes in 2010 to 1,665 tonnes in 2011 on account of slow-down in sales activities of recycled gold in China, India and Turkey.

The Top 10 gold producing countries contributed 1,859 tonnes of the global gold mine production. These countries together produce ~66% of the global gold mine production. China, which produced 380 tonnes and which has a share of ~13% is the largest gold producing country. The other two major producing countries are Australia and the US. Australia with 272 tonnes has ~10% share and the US with 242 tonnes has ~9% share in total gold production. South Africa, Russia, Peru, Ghana, Canada, Indonesia and Mexico are the other major gold producing countries and together these countries produce ~960 tonnes or 34% of the global gold mine production. The Top 5 gold producers account for ~23% of total mine production (Table 6).

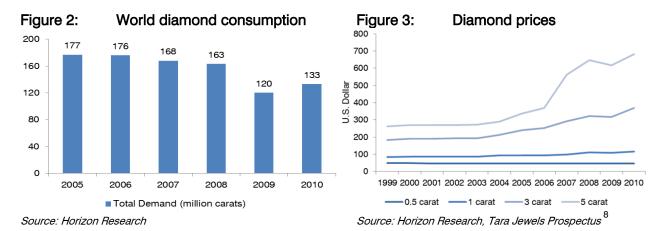
Of the total gold ore reserves of 51,000 tonnes, Australia, South Africa and Russia possess 7,300 tonnes, 6,000 tonnes and 5,000 tonnes of reserves, respectively. At an average annual extraction rate of 2,500 tonnes, gold reserves would last for another 20 years.

B) Diamonds

Consumption

Consumption of diamond jewelry has grown due to increase in demand from emerging markets such as India and China and consistent demand from developed nations. The world's largest market for diamond jewelry is the US with 40% of global consumption (~USD 48 billion). India has a 10% share (USD 12 billion) and China (including Hong Kong), Japan and Middle East have a 13%, 10% and 7% share respectively.

We believe that in the future, increasing income levels in developing nations would spur consumption of diamonds and by the end of 2016, relative market shares would shift from the US (with 34%) to India with 15% and China (including Hong Kong) with 18%.



Supply

Diamonds were both first mined and first adorned as jewelry in India. Commercial mining of diamonds commenced in 1870 in South Africa and by the 1960s had started in Russia, Australia

⁷ http://goldratefortoday.org/benefits-gold-finite-resource/

⁸ Prices for Rounds Rough Diamond Index

and Canada. Diamond production in 2010 was 133 million carats (~USD 13-15 billion), which declined from a peak of 177 million carats in 2005 (USD 13.2 billion). However, production has recovered from a low of 120 million carats in 2009. Recent demand has been affected by availability of credit and economic uncertainty, which resulted in the composite rough diamond index (which tracks prices of rough diamonds) declining by 21% from May 2012 to October 2012.

Figure 4: Global diamond output 2011

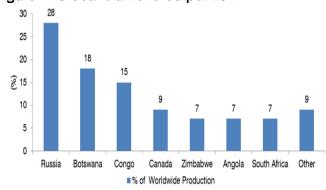


Figure 5: Diamond production map



Source: Horizon Research, Diamond .net Source: Horizon Research 9

Alrosa Company Ltd (MICEX: ALRS) is the largest diamond producer in terms of volume accounting for ~28% of global diamond production. De Beers Group controls ~25% of the overall diamond supply in terms of output and has a dominant position in the industry in value terms with ~45% share. The other three major producers are Rio Tinto (ASX, LSE: RIO), Harry

Winston (TSX: HW) and BHP Billiton (ASX, LSE: BHP) with a combined share of 13% (Table 7). Table 7 mpanies relative share in total global diamond output (carats)

Company	Mining location	Volume share (%)	Value share (%)
Alrosa Co.	Alrosa's major mines are International, Jubilee, Nyurbinskaya and Udach based in Russia. They have a 32.8% ownership interest in Catoca mines.	28	30
De Beers Group	Operations in Botswana, Namibia, South Africa and Canada. Major mine is Jwaneng, which contains the world's largest reserves of diamonds by value. ¹⁰	25	45
Rio Tinto	Rio Tinto has operations in Australia, Canada and Zimbabwe. Major mines are the Diavik Diamond Mine (60% interest), located in Canada and Argyle mine (100% interest), based in Australia.	9	5
Harry Winston Diamond	Harry Winston is a specialist diamond mining and retail company (retail segment is to be acquired by Swatch Group) based in Toronto, Canada. The company supplies rough diamonds through a 40% ownership interest in the Diavik Diamond Mine.	2	2
BHP Billiton	80% ownership interest in EKATI diamond mine in Canada.	2	6
Top 5 companies		66	88

Source: Horizon Research, Diamond report

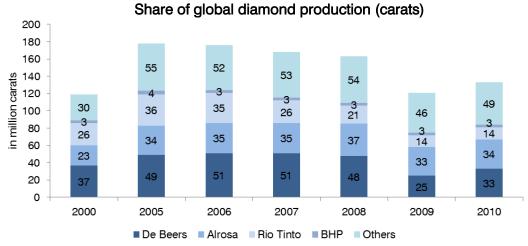
¹⁰ Jwaneng mine with USD 1,501 million (p.a.) has the highest revenue

⁹ http://www.info-diamond.com/rough/map.html

HORIZON RESEARCH

After mining rough diamonds, producers inspect and classify diamonds based on four basic parameters widely known as "the '4cs': cut, clarity, color and carat. Antwerp (Belgium) is a key diamond-trading hub for diamonds, as more than 80% of the world's rough diamonds and more than 50% of the world's polished diamonds are traded through the city. Sightholders (clients of major diamond producers) play an important role in diamond industry and are an important link between rough diamond manufactures and jewelry manufactures or polishers. There are over 100 independent sightholders who work with the largest diamond producers and buy $^{\sim}$ 70% of all diamonds produced worldwide.





Source: Horizon Research, Diamond report

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¹¹ Sightholders is a designated group of diamond dealers that have direct contracts with major diamond producers like De Beers, ALROSA

INDIAN GEMS AND JEWELRY INDUSTRY OVERVIEW

It is estimated that households in India hold 20,000 tonnes of gold, which is nearly three times the holdings of the U.S. Federal Reserve. The Indian gems and jewelry industry market size (annual domestic consumption and exports) is estimated to be ~USD 100 billion in FY12, of which exports account for 40%. During FY08-12, India's domestic jewelry industry grew at ~35% CAGR from USD 16 billion in FY08 to USD 60 billion in FY12 and exports grew at ~17% CAGR from USD 20 billion in FY08 to USD 40 billion in FY12.

Indian households prefer purchasing gold jewelry (over other types of jewelry) and this constitutes 80-85% of India's total gems and jewelry consumption. Consumption of diamond jewelry has a ~12-16% share in the Indian gems and jewelry industry whereas the remaining 3-4% share is made up of precious stones, silver, platinum etc. It is estimated that India has 450,000 goldsmiths, 100,000 gold jewelers, 6,000 diamond processing units, 700,000 to 800,000 diamond cutters and 8,000 diamond jewelers. The jewelry industry provides employment to ~3.5 million people, directly and indirectly.

We believe that the relative share of diamond jewelry will reach 20-25% by FY16 from 12-16% in FY12 on account of increasing popularity of diamond jewelry in urban areas. In contrast, the share of gold jewelry will decline to 70-75% by FY16 from 80-85% in FY12.

INDUSTRY DYNAMICS

Consumption of both gold and diamond jewelry is on the rise

Gold jewelry

India is the largest market for gold with $^{\sim}$ 1,000 tonnes of gold consumed annually. Of the total consumption of gold, consumption of gold jewelry is $^{\sim}$ 60% and the remaining constitutes demand for gold bars and coins (mostly for investment purposes). Consumption of gold in India is influenced by numerous social, economic and cultural factors. The price of gold, rural income distribution, quantum of black money, rate of return on alternate financial assets and the general price level are major driving factors for gold demand in India. Returns from gold investment have outperformed other comparable assets on three of the past five years. Indian's have a tradition of buying gold during auspicious festivals (Diwali, Akshaya Tritiya, Dussehra etc) and weddings. In rural India, farmers typically buy gold jewelry after every harvesting season. Demand from rural regions contributes $^{\sim}$ 60% of the demand for gold jewelry. With these factors in place, India's demand for gold jewelry is considered to be a price inelastic. In contrast, the demand is income elastic because consumer demand for gold increases whenever household income rises.

Demand for gold is well distributed across India and states such as Kerala, Maharashtra, Gujarat, and Uttar Pradesh are some of the major consuming centers. Southern Indian states including Kerala, Andhra Pradesh, Tamil Nadu, and Karnataka account for $^{\sim}36\%$ of India's overall consumption of gold, which are followed by the western states with $^{\sim}28\%$, northern states with $^{\sim}23\%$ and eastern states with $^{\sim}13\%$.

¹² This also includes the demand for coins and bar for investment

¹³ Black money refers to income on which taxes have not been paid

¹⁴ http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/RWGS02012013.pdf page 2

¹⁵ http://www.bis.org.in/cert/hallmark.htm

Diamond jewelry

Consumption of diamond jewelry has increased due to change in consumer preferences, rising income levels, increasing gold prices and increased cost competitiveness of diamonds with India being a low cost diamond-processing center. Demand for diamonds remains higher in the northern (37% share) and western (35% share) states as compared to the southern (20% share) and eastern (8% share) states.

Hub for diamond polishing

India is the largest diamond cutting and polishing center in the world and over 90% of the world's diamonds by volume are cut and polished here. The estimated cost of cutting and polishing per carat in India and China is USD 10 and USD 15-20, respectively. In comparison, South Africa, Belgium and the US have a per carat cutting and polishing cost of USD 40-60, USD 60-80 and USD 100 respectively. India developed as a diamond-cutting center in the 1970s, when Indian companies began cutting small diamonds for export. With the adoption of modern technology, Indian factories are now capable of cutting larger and more complex stones rather than the smaller stones they were restricted to processing earlier.

India's diamond processing industry is concentrated in Surat (Gujarat) and Mumbai (Maharashtra). Together about 30,000 to 50,000 cutters operate in China and Thailand, and their numbers are rising. Guangzhou in China is now one of the world's largest global cutting centers and is competitive with Indian centers.

Entirely reliant on imports

With negligible production of gold, diamonds and precious gemstones, almost all the domestic requirements are imported. India imported USD 39 billion of gems and jewelry in FY12 which increased from USD 19 billion in FY08 (Table 8). Gold imports were USD 10 billion in FY12, an increase of 18% YoY from USD 9 billion. In FY12, 131 million carats (15% growth YoY) of diamonds worth USD 14 billion were imported. India imports more than half of its rough diamonds from Belgium and also imports directly from De Beers, Alrosa and BHP Billiton. Once cut and polished, most diamonds are re-exported to large markets such as the US and Hong Kong. 16

Table 8:	Diamond export and import (in million carats)
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Particulars						CAGR
	FY08	FY09	FY10	FY11	FY12	(FY08-12)
Cut & Polished	43.2	40.2	60.0	66.6	51.9	4.7
Rough	28.7	30.6	24.5	33.5	33.9	4.3
Diamond Export	71.9	70.8	84.5	100.1	85.8	4.5
Diamonds Imports	171.5	118.9	149.9	154.3	131.4	(6.4)
Imports – USD bn	18.9	20.0	30.3	42.7	39.2	20.0
Imports – INR bn	760.0	1,037.6	1,362.9	1,932.4	2,032.7	27.9
Source: Horizon Research, GJEPC						

Gems and jewelry exports, a major foreign exchange earner

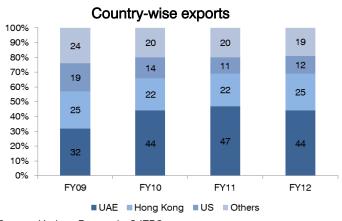
The jewelry industry is one of India's largest foreign exchange earning sectors and contributed ~14% to India's total export earnings in FY12. Jewelry exports increased 17% CAGR by value to USD 40 billion in FY12 from USD 20 billion in FY08 (Table 9).

¹⁶ http://www.commodityonline.com/news/diamond-imports-from-india-surge-by-55-29613-3-29614.html

CAGR

Cut & polished diamonds have a 54% (USD 21.4 billion) share in India's overall gems and jewelry exports whereas the remainder is contributed by gold jewelry (including gold medallions & coins) with a 39% share (USD 15.3 billion), coloured gemstones with a 0.8% share (USD 0.3 billion) and rough diamonds a 4.2% share (USD 1.6 billion). Based on average exports between FY09-11, UAE is the largest export destination for Indian gems and jewelry with a 43% share, followed by Hong Kong with a 23%, share and the US with a 14% share (Figure 7).

Figure 7:



Source: Horizon Research, GJEPC

In terms of carats, cut & polished diamond exports declined by 22.2% to 51.9 million carats in FY12 from 66.6 million carats in FY11 due to a decline in consumption in western countries, such as the US and Europe. Export of rough diamonds increased by 1.4% to 33.9 million carats in FY12 from 33.5 million carats in FY11. Total exports in terms of diamond carats (both polished and rough) declined to 85.8 million carats in FY12 from 100 million carats in FY11.

Total gems and jewelry exports are expected to grow by 2%-3% to reach USD 44 billion in FY13 and by 8%-9% to $^{\sim}$ USD 47- 48 billion in FY14.

Table 9: Exports of gems and jewelry (in USD billion)

						CAGA
Particulars	FY08	FY09	FY10	FY11	FY12	(FY08-12)
Cut & Polished Diamonds	14.2	11.4	19.1	28.4	21.4	10.7
Gold Jewelry	5.6	6.0	7.3	3.4	8.9	12.3
Gold Medallions & Coins	0.0	0.0	2.9	9.4	6.5	NA
Coloured Gemstones	0.3	0.2	0.3	0.3	0.3	3.6
Silver Jewelry	0.2	0.2	0.4	0.6	0.7	32.6
Pearls	0.0	0.0	0.0	0.0	0.0	-4.7
Synthetic Stones	0.0	0.0	0.0	0.0	0.0	112.3
Sub - Total	20.3	17.7	30.1	42.0	37.8	16.8
Exports of Rough-Diamond	0.6	0.7	8.0	1.1	1.6	30.4
Others	0.0	0.0	0.0	0.0	0.1	NA
Grand Total – USD bn	20.9	18.5	30.8	43.2	39.5	17.3
Grand Total – INR bn	838.7	955.7	1,388.4	1,957.9	2,048.2	10.7

Source: Horizon Research, GJEPC

MAJOR INDIAN GEMS AND JEWELRY COMPANIES

Indian gems and jewelry companies tend to focus on jewelry retailing and exports. Titan Industries (BSE: 500114) and Gitanjali Gems (BSE: 532715) are the two largest Indian jewelry retailers with a total combined carpet area of over 1.25 million square ft. Other companies include MMTC (BSE: 513377) a gold trading company that is the largest company by market capitalisation. There are two listed mining companies, Deccan Gold Mines (BSE: 512068) and Kolar Gold (AIM: KGLD). Both these companies are currently prospecting for gold and awaiting clearances to commence mining.

We believe Indian jewelry companies should be valued primarily on the basis of their manufacturing efficiencies as they pass through most of their exposure to gold price and foreign currency fluctuations to the end consumer.

Focus List Companies

Table 10:	Focus list compar	nies -Revenue a	and EBITDA per sq. ft.	
Companies	BSE: Code	Area	Revenue	EBITDA
		(sq. ft.)	(INR per sq. ft.)	(INR per sq. ft.)
Titan Industries	500114	450,000	153,373	18,910
Gitanjali Gems	532715	800,000	60,791	11,245
PC Jewellers	534809	164,572	126,597	25,910
TBZ	534369	47,796	295,924	27,199
Tara Jewels	534756	29,949	95,496	45,143
Shree Ganesh	533180	26,400	783,152	208,788
Source: Harizon Passare	h Company fillings			

Source: Horizon Research, Company fillings

Gitanjali Gems (BSE: 532715)

Gitanjali is one of the largest integrated jewelry companies in India, with diamond processing capacity of 400,000 stones per month and 800,000 square ft of retail space across 600 cities. Gitanjali commenced operations as a diamond trading company in 1966 and diversified into jewelry manufacturing, jewelry export, and domestic and overseas jewelry retailing. Gitanjali's two segments i.e. diamond processing and jewelry retailing contributed 44% and 56% respectively of total revenue of USD 2,456 million in FY12. In the jewelry-retailing segment, they manage 319 franchisees, 233 own stores, 577 shop-in-shop stores and have tie-up's with over 2,860 local retailers.

Within the diamond processing segment (generally a lower return on capital employed), Gitanjali possesses end-to-end diamond processing facilities and generates ~76% of segment revenue through exports. Gitanjali's RoE of 12.2% (FY08-12 average) is the lowest amongst our focus list companies. The diamond-processing segment Return on capital (RoC) was 21.9% in FY12. In the jewelry segment, Gitanjali sells jewelry in both the export (32.5% of jewelry segment revenue) and domestic markets. Gitanjali has well-known brands like Gili, Nakshatra, Asmi and D'damas and plans to increase retail space from 0.8 million square ft in FY12 to 2 million square ft by 2015, while moving into Tier 2 and Tier 3 cities. The jewelry segment RoC was 40.5% in FY12. As a sightholder, Gitanjali sources diamonds directly from the Diamond Trading Company (the rough diamond distribution arm of De Beers). Gitanjali and Shrenuj & Company Limited (BSE: 523236) are the only two listed companies in India that are sightholders of the Diamond Trading Company. Based on FY12 numbers, Gitanjali trades at 10.0x EV/EBITDA and 10.4x P/E multiple.

 $^{^{17}\} diamonds.net/News/News/tem.aspx? ArticleID = 38313\& ArticleTitle = DTC + Sightholders + Confirm + Contract + for + 2012 + to + 2015$

Titan Industries (BSE: 500114)

Titan Industries (a Tata group company), was originally known for its watch business but are now the largest organised retailer in the gems and jewelry industry. Titan owns two of India's leading brands – Tanishq (jewelry) and Titan (watches). The Jewelry and watches segments contribute 77% and 19% of the company's revenues respectively. Tanishq manages 161 'own' stores (128 Tanishq and 32 Gold Plus stores) for selling jewelry with a total retail space of 450,000 square ft and intends to increase retail area by 200,000-250,000 square ft by the end of FY13. The company has an average (FY08-12) RoE and RoC of 41.3% and 31.3% respectively. Based on FY12 numbers, the company trades at 27.5x EV/EBITDA and 39.8x P/E multiple.

Tribhovandas Bhimii Zaveri (BSE: 534369)

Tribhovandas Bhimji Zaveri Ltd (TBZ) specializes as a premium wedding jewelry manufacturer. The company commenced operations in 1864 with its flagship store located at Zaveri Bazar, Mumbai. TBZ sells gold and diamond-studded jewelry and manages 14 stores across 10 cities in 5 states with a total retail area of 47,796 square ft. TBZ intends to increase the number of stores to 57 in 43 cities across 14 states, with total retail space of ~150,000 square ft by the end of FY15. The new stores will comprise of 25 large format high street showrooms and 18 small format high street showrooms. TBZ FY12 revenues were USD 272 million. In May 2012, TBZ made a public offering (IPO) raising INR 2 billion by issuing 16.7 million shares at INR 120 per share. Based on FY12 numbers, the company trades at 14.3x EV/EBITDA and 27.9x P/E multiple.

PC Jewellers (BSE: 534809)

PC Jewellers manage 30 showrooms under the brand of "PC Jewellers" that are located in 23 cities in north and central India. The aggregate retail space is ~165,000 square ft. The company intends to open an additional 20 showrooms by FY14. In December 2012, PC Jewellers made a public offering (IPO) raising INR 6.0 billion by issuing 45.1 million shares at INR 135 per share. Revenues from exports are 30% of the company's total revenues of INR FY 598 million for FY12. Based on FY12 numbers, the company trades at 7.8x EV/EBITDA and 12.8x P/E multiple.

Shree Ganesh Jewellery House (BSE: 533180)

Shree Ganesh Jewellery House manufactures and exports gold jewelry, diamond jewelry, gemstone studded jewelry and light weight Italian jewelry. Shree Ganesh has a retail division that manages 46 stores under the 'GAJA' brand. Exports contribute 80% of the company's FY12 revenues of USD 1.9 billion. Shree Ganesh has an average (FY08-12) RoE and RoC of 34.3% and 15.1% respectively. Based on FY12 numbers, the company trades at 1.8x EV/EBITDA and 1.6x P/E multiple.

Tara Jewels (BSE: 534756)

Tara Jewels manages 30 stores with a retail space of 29,949 square ft and have plans to open 20 more stores by FY13. Exports contribute 80% of the company's revenue of USD 275 million in FY12. In November 2012, Tara Jewels made a public offering (IPO) raising INR 1.8 billion by issuing 7.8 million shares at INR 230 per share. Based on FY12 numbers, the company trades at 8.3x EV/EBITDA and 10.1x P/E multiple.

Other Indian gems and jewelry companies

MMTC India (BSE: 513377)

MMTC, majority owned by the Government of India, was established in 1963 with the objective of regulating international trade of minerals and metals. The precious metal segment (which includes gold) contributes $^{\sim}75\%$ of the company's revenues. MMTC has been nominated as a canalizing agency by the Government of India and is authorized to import gold for sale to jewelry manufacturers and exporters. MMTC imported $^{\sim}185$ tonnes of gold in FY10 which translate to $^{\sim}18\%$ of the India's total consumption of gold. MMTC has an operating margin of 0.2% from the precious metal business.

Kolar Gold (AIM: KGLD)

Incorporated in Guernsey, Kolar Gold focuses on Gold mining activities in the Kolar Gold Field region of Karnataka. Kolar Gold is one of a number of companies attempting to revive the Kolar Gold Fields earlier operated by Bharat Gold Mine Limited (BGML). Kolar Gold has an exclusive option to acquire 100% title to three mining licenses in the North, South and East Kolar blocks that straddle the states of Andhra Pradesh, Tamil Nadu and Karnataka. They are currently prospecting and have no active gold mining operations.

Deccan Gold Mines (BSE: 512068)

Established as a gold exploration company in 2003, DGML now has a portfolio of exploratory prospects in Karnataka, Andhra Pradesh, Kerala and Rajasthan. A Mining Lease (ML) application for 0.29 square kms over the Ganajur Gold Project is currently awaiting approval of the Ministry of Mines, Government of India (MoM).

CONCLUSION

The Indian jewelry industry has certain attributes that allow us to believe that there are opportunities to earn risk-adjusted returns through superior stock selection using the Horizon process. Our focus list includes those jewelry companies that will benefit from certain discernible trends:

- (a) Increasing share of organised retail in jewelry retail such as Gitanjali, PC Jeweller and Tara Jewels
- (b) A higher mix of diamond jewelry within the overall jewelry segment (with diamond jewelry garnering a higher EBITDA margin than gold jewelry) such as TBZ and Gitanjali
- (c) Low cost manufacturing such as Shree Ganesh Jewelry House

With secular trends led by increasing GDP, growing population and increasing disposable income among other long-term trends there are ample opportunities to invest in companies that will benefit.

HORIZON RESEARCH

Appendix 1:

Indian gems and jewelry universe

Company Name	Ticker	Sh Out Clo (mn) (Mk Cap To (USD mn) (L				EV/EBITDA (x)	P/E E (x)	V/Rev (x)	RoA (%)	RoC (%)	RoE (%)	Debt/Equity (%)	Revenue [FY12] (USD mn)	Revenues, 5 Yr CAGR (%)	Revenues, 3 Yr CAGR (%)	EBITDA [FY12] (USD mn)	EBITDA, 5 Yr CAGR (%)	EBITDA, 3 Yr G CAGR (%)	iross Margir (%)	EBITDA Margin (%)	Net Margin (%)	Total Assets [FY12] (USD mn)	Cash from Ops. [FY12] (USD mn)	FCF [FY12 (USD mn)
MMTC	BSE:513377	1,000	11.8	11,802	699	579	11,914	NM	NM	0.9	0.8	1.6	12.4	303.9	13,168	23.2	21.0	14	(10.4)	(15.7)	2.5	5 0.3	0.4	2,601	(244)	(24
Titan Industries	BSE:500114	888	5.3	4,705	2	190	4,529	27.5	39.8	2.6	11.5	31.3	41.3	18.9	1,738	33.4	32.2	165	31.4	42.0	26.2	9.2	5.6	927		
Gitanjali Gems	BSE:532715	92	10.8	992	778	129	1,726	10.0	10.4	0.7	4.3	6.2	12.2	108.5	2,456	28.0	35.8	173	32.7	29.9	14.1	6.5	3.4	2,100	215	2
Rajesh Exports	BSE:531500	295	2.6	756	640	1,543	(91)	NM	9.3	NM	2.4	5.9	21.6	168.8	5,040	28.3	21.9	120	7.0		2.6	3 2.2	1.4	2,352	(57)	(5
C Jeweller	BSE:534809	179	3.2	579	114	2	634	7.8	12.8	1.1	12.7	24.7	50.6	125.1	598	83.7	69.7	82	114.8	92.1	12.4			400		(7
ribhovandas Bhimji Zaveri	BSE:534369	67	4.7	313	41	1	350	14.3	27.9	1.3	10.6	14.9	78.1	612.8	272	35.3	27.5	25	41.2	53.7	15.1			115		,
Asian Star Company	BSE:531847	16	12.6	202	129	21	305	18.8	24.8	0.8	4.3	5.0	10.9	159.8	361			16			7.7	7 5.4	2.5	282	8	
Goenka Diamond and Jewels	BSE:533189	317	0.5	163	23	5	180	NM	38.7	1.6	7.0	14.0	31.8	52.7	112			1			8.4	7.0	6.3	110	(8)	
Shree Ganesh Jewellery House	(I) BSE:533180	61	2.3	142	226	184	195	1.8	1.6	0.1	9.9	15.1	34.3	63.2	1,988			106			6.9	6.0	5.0	1,060	40	
SRS	BSE:533569	139	0.8	115	75	11	174	7.7	13.1	0.4	6.5	7.0	9.1	74.0	446	114.8	65.5	23	66.2	69.4	12.6	6.0	2.6	193	(36)	
Tara Jewels	BSE:534756	25	4.4	107	110	4	216	8.3	10.1	0.8	6.0	8.8	19.1	196.2	275		22.9	26		33.3	19.4	8.4	2.8	232	(10)	
C. Mahendra Exports	BSE:533304	60	1.7	99	240	7	320	6.1	3.2	0.5	5.5	7.4	18.2	294.6	690	16.2	31.8	53	8.4	20.6	10.1		3.2		(33)	
Shrenuj & Company	BSE:523236	77	1.2	94	425	34	532	12.2	6.8	0.9	4.7	6.2	14.6	377.2	619		29.2	44		21.1	17.5			666	(87)	3)
Thangamayil Jewellery	NSEI:TMJL	14	6.2	85	54	2	133	5.8	7.3	0.6	17.7	19.6	37.4	129.8	222			23			10.5			93	(13)	
Winsome Diamonds and Jewelle		107	0.7	74	120	59	131	2.8	3.2	0.1	2.6	5.6	10.3	59.8	1,218	30.6	32.9	47	25.5	41.9	4.4			966	(41)	
Kanani Industries	BSE:506184	90	0.8	74	9	1	81	NM	NM	2.5	13.9	32.7	67.3	83.0	33	265.4	44.8	1	371.2	(24.5)	14.6	3 13.9	13.2	23	(10)	
Vaibhav Global	BSE:532156	32	2.3	72	35	6	105	7.1	5.4	0.8	(1.5)	(1.8)	(4.3)	51.9	127			15			43.2			101	10	
Suashish Diamonds	BSE:526733	21	2.8	58	89	60	95	5.0	7.1	0.4	1.8	1.9	5.6	123.6	245		14.3	19		39.1	8.4			255	(31)	(3
Shirpur Gold Refinery	BSE:512289	29	1.7	51	11	8	46	23.1	NM	0.1	(2.6)	(2.9)	(12.2)	70.8	502	473.2	4,154.6	2			30.6		(5.9)	113		
Timex Group India	BSE:500414	101	0.5	50	2	1	59	21.6	56.1	1.6	4.3	8.5	9.5	5.9	36	10.1	12.2	3	18.9	15.0	45.7		. ,	33		
Lypsa Gems & Jewellery	BSE:534532	14	2.5	34	0	1	33	52.3	83.2	0.7	0.6	2.2	12.1	246.4	51		605.5	1			0.9			26		
Provogue (India)	BSE:532647	114	0.3	32	74	8	94	7.7	7.4	0.6	2.0	2.2	4.0	39.1	155	26.9	29.4	12	13.7	27.7	30.6			202	(9)	(1
Surana Corporation	BSE:531102	22	1.3	29	31	10	48	1.6	2.2	0.0	7.9	16.2	23.3	121.2	1,703	85.6	51.6	30	11.9		3.0			273		
Renaissance Jewellery	BSE:532923	19	1.3	25	54	7	69	3.6	3.7	0.4	6.2	7.7	14.1	83.4	187			19			18.4			128	2	
Deccan Gold Mines	BSE:512068	59	0.4	23	-	1	22	NM	NM	184.9	(5.2)	(5.5)	(6.0)	NM	0	40.8	0.4	(0)			80.2			1	(0)	
KDDL	BSE:532054	9	2.0	18	20	1	37	6.6	15.3	0.8	3.5	4.9	(1.9)	165.0	46	22.1	25.1	6	15.6	47.1	42.2	, ,	, ,	45	2	
Swarnsarita Gems	BSE:526365	20	0.9	17	-	2	17	86.6	65.0	1.2	9.2	14.9	28.6	0.2	14	30.1	77.8	0	(31.4)	(25.1)	9.6		. ,	19	(5)	
Goldiam International	BSE:526729	25	0.5	13	14	20	9	1.8	4.4	0.2	4.2	5.1	4.1	21.4	50	(1.6)	12.8	5	10.6	17.5	18.8		3.6	69	4	
SJ Corporation	BSE:504398	8	1.3	11	-	0	11	NM	NM	5.6	8.4	69.9	1,171.6	NM	2	85.5	(22.2)	0			11.9			2	(0)	
Shree Rama Multi-Tech	BSE:532310	59	0.1	5	58	3	56	NM	58.2	4.0	(1.1)	(1.4)	(3.3)	121.1	14	4.6	(41.6)	(0)			33.0			49	-	
White Diamond Industries	BSE:513713	11	0.3	4	0	0	4	NM	76.7	2.0	(0.1)	(0.0)	9.3	1.3	2	(1.2)	(24.1)	(0)			3.3			5	(2)	
Classic Diamonds (India)	BSE:523200	39	0.1	3	58	0	58	18.9	(0.5)	1.3	4.4	5.3	2.8	145.5	45	(45.9)	(64.3)	3			12.8			120	2	
JIK Industries	BSE:511618	73	0.0	3	1	0	3	10.4	11.3	0.7	0.6	0.8	1.5	22.8	5	182.1	()	0			3.8		. ,	23	0	
Flawless Diamond (India)	BSE:523576	167	0.0	3	12	0	13	NM	36.7	1.2	3.6	8.0	15.6	75.2	11			(1)			3.6			52	0	
Zodiac JRD-MKJ	NSEI:ZODJRDMK		0.5	3	-	2	1	5.1	12.9	0.3	1.1	1.1	1.9	2.6	4	9.2	(15.4)	0	7.6	(22.0)	9.7			11	(0)	
Sunraj Diamond Exports	BSE:523425	5	0.3	2	3	0	4	83.5	9.2	0.4	1.0	1.6	6.0	66.3	11	44.7	39.9	0	24.5		4.0			6	(1)	
Golkunda Diamonds & Jewellery	BSE:523676	7	0.2	2	6	0	7	7.6	6.4	0.3	4.1	5.0	9.0	253.2	23	20.2	17.4	1	16.1		7.7			- 11	(0)	
Silver Smith India	BSE:531626	4	0.3	1	0	0	2	NM	NM	3.8	(2.7)	(2.8)	(6.0)	20.6	0	4.8	14.1	(0)	-		47.1			1	(0)	
/aishnavi Gold	BSE:590111	5	0.2	1			5	3.5	3.2	0.2	9.0	10.4	13.4	139.5	30			1			8.1		. ,		(-/	
Shukra Bullions	BSE:531506	5	0.1	1	0	0	1		262.3	1.1	1.6	2.4	3.4	8.3	1						15.0			1	0	
Shukra Jewellery	BSE:523790	14	0.0	1	0	0	1	21.8	13.6	0.1	0.7	0.7	1.5	2.1	7	(5.8)	31.1	0			2.5			. 8	(0)	
Bovereign Diamonds	BSE:523826	6	0.1	0	2	0	3	5.4	4.0	0.5	4.1	4.7	1.9	73.7	. 5	(5.0)		0			24.9			3	(0)	
Sheetal Diamonds	BSE:530525	5	0.1	0	0	0	0	NM	NM	1.2	0.1	0.1	0.0	4.9	0			(0)			12.6			1	(0)	
Mini Diamonds (India)	BSE:523373	3	0.1	0	1	0	1		11.1	0.2	0.8	3.1	3.6	83.8	6	23.6		0	18.1		4.1			6	0	
Narbada Gems And Jewellery	BSE:519455	5	0.1	0	0	0	0	2.8	3.1	0.2	4.3	6.3	9.9	1.4	1	42.0	49.0	0	- 10.1		10.8			1	(0)	
Total	302.0.0100		V.1	20,759	4,155	2,905	22,131	2.3	0.1	J.L	1.0	0.0	0.0	1.7	32,516	12.0	10.0	1,032			10.0	. 0.2	. 0.0	14,280	(310)	
Median				20,700	1,100	2,000	££,101	77	10.2	0.7	4.1	5.3	9.9	75.2	02,010	28.2	28.4	1,002	17.1	28.8	11.9	6.2	2.5		(010)	(50
Average								16.3		5.2	4.2	8.3	39.7	111.1		57.0	168.8		39.7	25.9	16.3					

Average 163 254 52 42 83 39.7 111.1 57.0 Source: Capital iq, Created on 2 January 2013 Gross margin, EBITDA margin, PAT margin, RoC, RoE, RoA, Debt/Equity are based on the last 5 years average (FY08-12)

Rohit Anand, the Research Analyst who prepared this report, hereby certify that the views expressed in this report accurately reflect the analyst's personal views about the subject companies and their securities. The Research Analyst has not been, is not and will not be receiving direct or indirect compensation for expressing the specific recommendation or view in this report.

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