

Diamonds & Diamond Grading The Modern Diamond Market



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Andy Lucas/GIA

THE MODERN DIAMOND MARKET

According to American legend, Rip Van Winkle fell asleep before the American Revolution and awoke 20 years later believing he was still a subject of England's King George. Mr. Van Winkle would have been no less shocked if he'd fallen asleep before the end of the Cold War and woke up 20 years later. He'd have been especially shocked if he'd been in the diamond trade prior to his big snooze.

What has occurred in the diamond industry over the past two decades is nothing short of a revolution. The long reign of De Beers over its rough diamond kingdom gave way to such a wave of independence and diversification that even those who were awake through it all had to rub their eyes in disbelief.

The widespread and fundamental transition of the diamond industry reflected broader global trends. These included the emergence of India and China as economic powers; the assertion of national sovereignty by Third World countries, especially in Africa; the advance of technology; and the threat of international terrorism.

In this assignment, you'll learn about the enormous impact of these and other changes as they continue to reshape the face of the diamond industry.

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Key Concepts

The CSO controlled diamond prices by buying and holding supplies until demand increased.

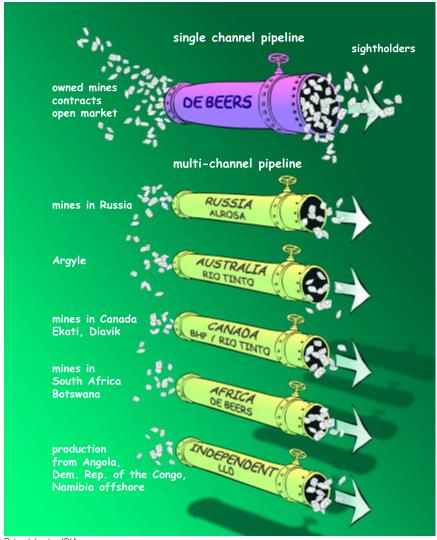


The CSO once sorted and controlled the vast majority of the world's rough diamonds. Today, the diamond market is dealing with a new multi-channel reality.

BIRTH OF THE MULTI-CHANNEL MARKET

- What led to the collapse of the single-channel rough diamond market?
- What countries play ongoing roles in the rough diamond market?
- How did diamond-mining countries gain control over their own natural resources?

After decades of being defined by De Beers' single channel, the diamond market entered the twenty-first century reconfigured as distinctly multichannel. Up to the mid-1990s, De Beers' trading arm, the Central Selling Organisation (CSO), was the nucleus of the world diamond industry. Backed by De Beers' financial muscle, the CSO controlled the flow of diamonds by buying and holding them until demand for them rose along with their prices.





Andy Lucas/GIA

The diamond market is becoming more and more diverse. This scoop of rough from a Canadian mine is being inspected at a company in India.

Peter Johnston/GIA

Where once there was a single channel-De Beers-the modern multi-channel market for diamond rough consists of many different pipelines.

However, when important diamond producers in Russia, Australia, and Canada sought more control over their own mineral resources, negotiations over trade contracts became more complex and costly for De Beers. The situation was complicated even more by an overall increase in diamond production, which limited the CSO's ability to control supply and demand. The multi-channel rough diamond market that emerged from the chaos consisted primarily of Russia, Australia, Canada, and the diamondtrading company owned by Lev Leviev.

The multi-channel rough diamond market has become a fact of life in the diamond industry. This assignment will examine what each of the new channels looks like and what measures De Beers has taken to adjust to this new reality.



In a vertically integrated market, the same company that mines diamonds also sorts rough, fashions diamonds, mounts them in jewelry, and markets them directly to consumers.

Key Concepts

A finished piece of diamond jewelry has much greater value than a rough diamond crystal.

Vertical integration—Involvement of a business or industry in all aspects of its product's market.

RUSSIA

The disintegration of the single channel coincided with the breakup of the Soviet Union. Its affect on the diamond industry was as dramatic as the affect of the Soviet collapse on global politics.

A chief characteristic of the Russian diamond industry was its vertical integration. It's a term that describes involvement of a business or industry in all aspects of its product's market. In the diamond industry, this includes mining, sorting, cutting, jewelry manufacturing, distribution, marketing, and sales. Vertical integration in the diamond industry increases profits because there's much more value in a finished piece of diamond jewelry than in a rough diamond crystal.

Small Russian diamond-cutting workshops dated from the late 1600s. When rich diamond deposits were uncovered in Siberia's Mir mine in the mid-1950s, Russia's cutting and polishing industry expanded to international prominence. Russian cutters emphasized quality, and Russian-cut diamonds gained a reputation for excellence.

During the 1970s and 1980s, Soviet opposition to the South African racial-separation policy of apartheid caused them to deal with De Beers only through intermediaries. As the Soviet system began to crumble in the 1980s, De Beers was in a good position to benefit from the totalitarian regime's desire to modernize.

The CSO made a billion dollar loan to Moscow, accepting a large portion of the Soviet diamond stockpile as collateral. The two parties signed a five-year agreement in 1990. It sustained De Beers' exclusive marketing rights to all of that country's future diamond production. Also in the



Alexandra Avakian/Contact Press Images/PictureQuest

Lenin's statue lying prone in a Moscow park symbolized the break-up of the Soviet Union into independent states in the early 1990s. Release of Russian diamonds onto the open market following the collapse created fresh difficulties for De Beers.





Both by Reuters NewMedia Inc./Corbis

The opening of the Mir mine (above) in Siberia's western Yakutia region in the mid 1950s led to the Soviet Union's importance in the diamond market. Some of Russia's diamonds are impressively large and high in quality (right).

1990s, De Beers officially recognized the skills of Russian cutters and made a Russian firm one of its sightholders.

But as would happen elsewhere in the world during this tumultuous period, nationalist sentiment could not be ignored. The Russian federation that emerged from the ashes of the Soviet Union placed its diamond operation under the authority of Alrosa—a joint venture of the central Russian government and Sakha, a semi-autonomous republic and primary producer of diamonds.

A subsidiary of Alrosa—Brillianty Alrosa—was established to foster the development and success of a domestic diamond polishing industry. Under this policy, the Russians established 90 diamond-polishing factories by the early 2000s.

By exploiting a series of loopholes in its original contract with De Beers, the Russians had seriously undermined the CSO's ability to control diamond supply. Those loopholes let the Russians draw upon huge stockpiles of what they claimed were industrial diamonds. This bypassed the CSO and flooded the market, thus depressing prices. In 2001, after negotiations over a series of contracts, De Beers and the Russians reached a new five-year agreement.

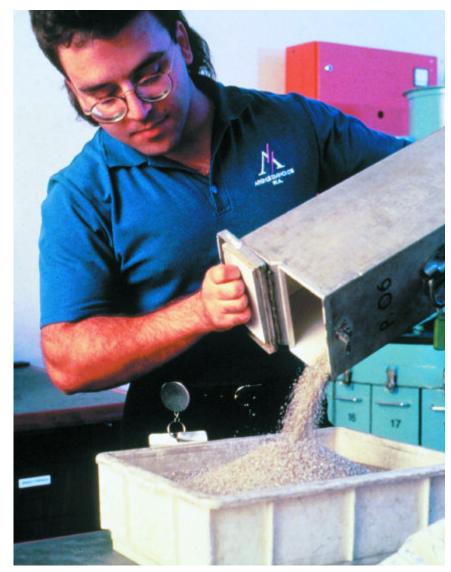
By 2005, the European Union (EU) had accused the Russians and De Beers of collusion to control diamond prices. A court decision in late 2007 seemed to favor Alrosa and De Beers, but one thing was now clear in the new diamond market: certainty would be rare.



In 2005 the European Commission accused De Beers and Alrosa of working together to fix diamond prices. After a series of appeals, a court decision seemed to favor the partners, who control about 60 percent of the world's diamond rough.



Robert Weldon/GIA



Although much of Argyle's production is small, brownish, and inexpensive (above), a tiny percentage consists of rare red and pink gems that sell for extremely high prices (left).

AUSTRALIA

While the failure of communism helped reset De Beers' relationship with Russian diamond producers, marketing genius changed the dynamic between De Beers and Australian suppliers. By the late 1980s, Australia's Argyle mine had become one of the world's largest producers by volume of rough diamond.

At first, Argyle joined the CSO single-channel marketing system and sold 75 percent of its output to the CSO. The CSO was able to carefully control the release of these rough diamonds into the market and to establish a secure supply for the cutting industry in India.



Lamberti/Stone/Getty Images

Most of Australia's production consists of small brownish diamonds, used mostly in industry. The Australians created a jewelry market for them by giving them names like "cognac" and "champagne."

There were, however, strains on the relationship between Argyle and De Beers. One source of the strain was De Beers' requirement that Argyle first sell its signature rare pink diamonds to the CSO and then buy them back in order to sell them to its own clients. Many of those clients were Australian jewelers who received finished goods from Argyle's own cutting and polishing operations.

In the 1990s, economic recession in many parts of the world, plus the large number of small—mostly Russian—diamonds in circulation, forced De Beers to delay purchase of Argyle's production. This left Rio Tinto, Argyle's London-based ownership group, with stocks of rough contractually committed to De Beers.

Most of Argyle's material was suitable for industrial use only, and even the rough diamonds used in the gem industry were often small, brownish, and difficult to cut. Many crystals had only small portions that were clear enough to fashion. They required labor-intensive processing to produce marketable polished diamonds.

Argyle turned to the low-wage Indian cutting industry to handle its mass quantity of small, modest-quality stones. This allowed rough that was once consigned to industrial use to be processed for the jewelry market. What Argyle then needed was to create a market for its product.

Since the Australians believed the CSO's marketing efforts favored larger stones over smaller ones, they took responsibility for marketing their own product. They promoted their small brown stones as "cognac" or "champagne" diamonds. By aggressively promoting inexpensive jewelry pieces studded with their tiny gems, they helped broaden the appeal of diamond jewelry to more consumers. By 1996, relations between Argyle and the CSO had totally collapsed.

Key Concepts

The low-wage Indian cutting industry allowed Argyle's small, lower-quality stones to be processed for the jewelry market.

RIO TINTO

bhpbilliton

Rio Tinto's need to raise funds for converting the Argyle mine to an underground operation was complicated by a takeover attempt from its rival BHP Billiton. The two giant companies are global conglomerates focused on natural resources.

Even after Argyle's departure, De Beers still retained majority control of the world's rough diamonds through mines in Africa. However, its difficult contract negotiations with the Russians and the rift with the Australians made its position precarious.

The open-pit operation of the Argyle mine that launched the Australian diamond boom was near exhaustion by 2005. In addition to expanding its interests into Canadian mining, Rio Tinto sought to extend Argyle's life to 2018 by going underground. The story of Rio Tinto's efforts provides a good example of global business in the twenty-first century.

First, to convert Argyle to an underground operation Rio Tinto had to commit to an investment of more than a billion dollars. Then the owners had to sign a Participation Agreement, which essentially recognized the indigenous peoples of the area as its landlords.

Shortly after securing the future of its Australian interests, Rio Tinto faced a takeover attempt from its rival, BHP Billiton. The two mining and metals conglomerates have far-flung holdings, and both companies were involved in Canadian diamond-mining ventures. Though small compared to their other holdings, a merging of the two companies' diamond interests would have made the new entity the third largest diamond producer in the world.

The back and forth of the attempted takeover graphically illustrates the complications of dealing in the global economy. For one, Rio Tinto had to pay for its own earlier takeover of the Canadian mining company Alcan. It also needed funds to protect itself from being taken over by BHP. To help raise the necessary financing for both, it had to sell off its significant coal-mining interests in the United States.

TIFFANY&CO.



Tiffany & Co. was a part owner of Aber Resources when it helped finance the Diavik mine. This secured Tiffany a source of diamond rough. When Aber bought luxury retailer Harry Winston, Tiffany sold its share. Aber eventually changed its name to Harry Winston Diamond Company.

CANADA

In 1991, the first Canadian diamond-bearing kimberlite of any significance was discovered in that country's Northwest Territories. The Ekati mine went into production in 1998. The quality of its diamonds compared favorably with the best output from South Africa, Botswana, and Russia.

The Australian mining giant BHP Billiton had a controlling interest in the Ekati mine, and in the beginning sold 35 percent of its production to De Beers. At the end of the three-year agreement, BHP chose to go its own way to market its diamonds.

Another Canadian mine, Diavik, opened in 2003 with Argyle's owner Rio Tinto as majority shareholder. Rio Tinto's partner in the Diavik mine was Canadian company Aber Resources Ltd. Famed retailer Tiffany & Co. was part owner of Aber. Tiffany's investment helped finance the mine and secured a diamond source for the retailer.

After Aber Resources bought Tiffany rival Harry Winston, Tiffany sold its stake. Then to capitalize on Harry Winston's prestigious name in the diamond trade, Aber changed its name to Harry Winston Diamond Company.





Canada's Ekati mine (above) went into production in 1998. Its remote location and climate conditions make access possible only in the winter when the roads are frozen solid (right).

A Canadian company's ownership of a US asset—a renowned brand name—was a welcome reversal for Canadians. As in many countries throughout the world, reactions to increasing foreign ownership of domestic businesses had added fuel to nationalist sensibilities.

Canada, like many other countries, tried to deal with the issue through legislation. The Canadian government made mining companies commit to involving Canadian workers in sorting, grading, and polishing the diamonds taken out of the country's ground.

AFRICA

Beneficiation is a mining term that refers to the process of reducing and separating extracted ore into mineral and waste. In a social context it means that a portion of the natural resources extracted from a country's soil must stay in the country to support its economic growth. Modified versions of this practice already existed in other places, such as Canada, but the concept of beneficiation is most closely associated with the diamond-producing nations of Africa.

In South Africa, it led to the policies of Black Economic Empowerment (BEE). One of the results of these policies was a new mining charter that designates the people of the country as the rightful owners of its mineral resources, with the government as custodian.

BEE policies also require mining operators to set aside a certain percentage of rough for local manufacturing and give proprietary standing to local



Eric Welch/GIA

Canadian rough is known for its quality, size, and clarity. This octahedron ended up in Surat, India, where expert diamond cutting at cut-rate prices has been an attractive lure.

Beneficiation—A commitment to reserve a portion of the resources derived from any country for the economic development of that country.

Key Concepts

Beneficiation helps countries exercise greater control over their natural mineral resources.

cutters. South Africa's newly formed State Diamond Trader is specifically charged with purchasing diamond rough for domestic use. Under pressure, De Beers increased the number of sightholders to include black-owned South African companies that were BEE-compliant.

In Namibia, beneficiation was in effect before it became known by that term. In 1994 the government and De Beers formed a 50-50 partnership called Namdeb. As beneficiation became more accepted, Namibia set a goal of having 90 percent of its diamond production polished domestically. By 2004-2005, De Beers offered to help Namibia develop local diamond manufacturing. To support this effort, it opened a branch of its diamond rough distributorship in Namibia to deal with local manufacturers.

De Beers formed another 50-50 partnership with the government of Botswana. This one, called Debswana, controls the world's largest diamond reserve. The immense production from the joint holdings provides 30 to 40 percent of Botswana's gross national product. It has helped move the country up toward middle class status among world economies.

The relationship between De Beers and the government was formalized in an agreement that made Botswana part owner of De Beers. Nonetheless, negotiations between the two over a new 25-year license on Botswana's major Jwaneng mine were difficult. Difficult negotiations were becoming a fact of life for De Beers in the new multi-channel universe.



This Namibian diamond cutter is one of many who benefit from beneficiation, the policy of dedicating a portion of a country's natural resources for development of local economies.



©Jason Lauré



Peter Essick/Aurora and Quanta

In the late 1990s, De Beers and its government partners built this multimillion-dollar diamond sorting plant at Botswana's Jwaneng mine (top). An inside view shows some of Jwaneng's quality output (bottom).



Lev Leviev took advantage of the Russian release of diamonds into the market by buying up as much as he could. This prepared him to step in when De Beers departed from Angola. As a result, his company, LLD Diamonds, became a significant entity in the multichannel market.

Key Concepts

New diamond supplies combined with major political and economic events led De Beers to institute dramatic changes.

Conflict diamonds—Diamonds used to finance violence and terror.

LEV LEVIEV, LLD

Lev Leviev, LLD was formed in the late 1990s as an independent alternative to De Beers. Leviev, a former De Beers client, had earlier formed a joint diamond manufacturing venture with Alrosa. As a result, he was able to take advantage of the situation when the Russians started indiscriminately releasing huge portions of their stockpile of diamond rough.

Leviev bought up all he could, then reinvested his profits into buying contracts for Angolan diamond rough. He was there to fill the vacuum created when De Beers departed Angola in 1998 in response to the growing issue of conflict diamonds. Conflict diamonds, so called because they were used to finance war and terror, were a serious issue in Angola at the time. (There's more about this later in this assignment.)

Leviev established The Angola Selling Corporation to market the country's production. In return, the Angolan government granted Leviev considerable participation in the selling operation and alluvial mining concessions.

With his foothold in Angola, Leviev, who renamed his company LLD Diamonds, expanded into Namibia and the Congo. LLD's organization was designed to mine its own diamonds, buy rough on the open market, then polish and distribute fashioned diamonds directly.

By 2002, LLD's success in the diamond trade had surpassed giants such as Rio Tinto and BHP. By 2005, however, Leviev's prominence in his territories was being threatened by an old familiar face—De Beers.

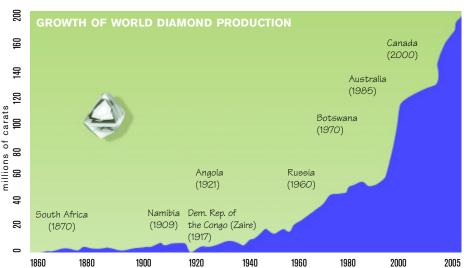
DE BEERS IN THE NEW CENTURY

- What caused De Beers to change its ways of doing business?
- What specific changes did De Beers make?
- How has De Beers influenced the international diamond community?

Throughout the 1990s De Beers was quietly reinventing itself to meet the challenges of the changing rough diamond market. As the new century began and the challenges mounted, De Beers' efforts became more vigorous and pronounced.

The most notable challenge, of course, came from the dramatic increase in diamonds flowing around the De Beers pipeline instead of through it. External pressures also played a part. While the US enjoyed unprecedented prosperity in the 1990s, Asian countries were in recession. Lower demand in those countries meant lower sales. At the same time, diamond supplies increased, especially supplies of small, inexpensive stones flowing through India.

Manufacturers kept producing, but fewer consumers had the finances to absorb their high-end goods. At the same time, retailers used volume discounting to drive down prices. This led to increases in the number of consumers, but the demand was for lesser-quality goods. Profit margins dropped in many segments of the industry.



Since the late 1800s, many significant diamond sources have emerged. Annual diamond production has surged from just a few million carats to well over 100 million carats.

De Beers had once sold as much as 80 percent of all diamond rough. In the late 1990s, that amount fell to about 65 percent. The opening of mines outside De Beers' influence, like those in Australia and Canada, further diluted its control over supply.

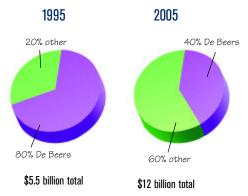
De Beers, however, was not about to surrender its primary role in the diamond industry. By the end of the twentieth century, it still accounted for about 50 percent of the world's annual diamond production by value. To prevent further erosion of its position in the twenty-first century, it aggressively set about altering its decades-old way of doing business.

DE BEERS AS PRIVATE ENTERPRISE

In early 2001, De Beers chairman Nicholas "Nicky" Oppenheimer announced he was heading a consortium, named De Beers Investments (DBI), that would buy all outstanding shares and take the company private. The consortium is owned by the Oppenheimer family (45 percent), the Anglo American Corporation (45 percent), and Debswana (10 percent).

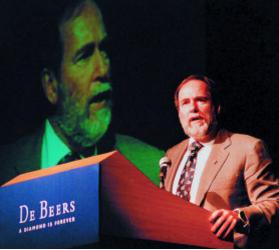
The relationship between Anglo American and De Beers was always complex. Each company owned shares in the other in a structure devised by Ernest Oppenheimer, Anglo's founder, to protect his family's interests. One main goal of the buyout was to eliminate the mutual holdings. It gave Anglo American a stake in De Beers with De Beers no longer holding Anglo stock.

Some analysts speculated that the move was also designed to circumvent any legal issues De Beers might face in the US. Others suggested it allowed De Beers management to pursue controversial initiatives without stockholder pressure or scrutiny. Whatever the reasons, and despite the controversies, the plan went through and, in May 2001, De Beers became a privately owned company.



Peter Johnston/GIA

A variety of factors caused De Beers' control of the diamond industry to diminish as the 21st century unfolded.



Jonathan Woodruff/Reuters/Corbis

In 2001 Nicky Oppenheimer announced the purchase of De Beers for \$17.6 billion. The purchasing partners were the Anglo American mining company, the Oppenheimer family, and Debswana.



Part of the De Beers makeover was a controversial reevaluation of its sightholder list. The classic sight box remained even as the list of sightholders went through a series of changes.



The Forevermark, an advertising logo designed to symbolize diamond's timeless appeal, became a key component of the DTC's consumer-level promotions.

THE CSO BECOMES THE DTC

Even before its privatization, De Beers was already involved in a serious corporate makeover. In January 1999, De Beers teamed with a consulting company to conduct a strategic review of its entire operation. From ownership to customer relations to advertising, everything was about to change.

As a result of the review, De Beers announced in mid-2000 that the CSO would be renamed the Diamond Trading Company (DTC). At the same time, the company unveiled a new logo called the Forevermark—a star embedded in a diamond. It symbolized the slogan "A Diamond is Forever," and it became part of the company's new consumer-level promotional program.

The renaming of the CSO was meant to be more than cosmetic. It represented a fundamental change in the way De Beers operated. De Beers no longer positioned itself as the custodian of the industry. And instead of being the company with whom sightholders were required to do business, it aimed to be the company with whom sightholders would choose to do business. Instead of driving supply, the company's aim was to drive demand.

An important part of this strategy was its *Supplier of Choice* (SOC) program, under which De Beers and its sightholders would work together to market and sell diamonds. For decades, De Beers had provided much of the industry's advertising—up to \$200 million per year. But the company recognized that the amount spent on diamond promotion was less than the amount spent on promotion of other luxury goods—only 1 percent of sales compared to 10 to 20 percent. So De Beers began requiring its sightholders to create their own diamond-marketing efforts.

In order to buy diamonds from the DTC, an SOC sightholder had to demonstrate its ability to sell diamonds and to add value to those diamonds in some way. That might mean innovative advertising campaigns or creative marketing plans. For example, some SOC sightholders might develop proprietary cuts to promote to retailers. Others might promote their own private-label jewelry lines.

Many factors affected the selection of new sightholders, including their financial strength, market position, location, marketing strategy, and technical expertise. The DTC put special emphasis on sightholders who served specialty markets or who were located in previously underserviced areas.

In return, sightholders got rough allocations tailored to their needs. This was determined jointly with the DTC and based on sales volume over a six-month period. Sightholders were also entitled to assistance in training, sales planning, client evaluation, account management, trade marketing, and advertising.

In an attempt to prevent negative reaction to its SOC initiatives, De Beers submitted them to the European Commission (EC) for review. It followed through by making the EC's suggested modifications. Nonetheless, the SOC program was not wholeheartedly welcomed in the industry.

The new SOC sightholder list was two-thirds the size of the previous list. Some significant industry players were dropped, notably some in Antwerp and Israel. The negative reaction led to formal resolutions and lawsuits against De Beers.

In 2004, De Beers responded by offering to make \$500 million of rough available to diamond manufacturers outside the SOC program. In 2005, it added 11 new sightholders and, in 2006, announced it would review the list every six months. The criticism persisted, so in 2007, De Beers announced it would implement a revised SOC program, called *Supplier of Choice 2*. Reinventing itself would prove to be an evolving process for De Beers.

DE BEERS AS LUXURY RETAILER

Another result of the strategic review was that the company decided to make radically different use of its name. The company removed the De Beers name from its generic advertising and replaced it with the time-honored slogan, "A Diamond is Forever," tied to the Forevermark. De Beers reserved its name for luxury branding purposes.



As De Beers sought to resolve a number of old complaints through Supplier of Choice, it raised many new ones. Those led to a revised program called Supplier of Choice 2.

Supplier of Choice—Program adopted by De Beers in 2001, in which it required its sightholders to help increase market demand for diamonds.

Supplier of Choice 2—Program adopted by De Beers in 2007 to answer critics and resolve short-comings of its original SOC program.

Key Concepts

SOC sightholders had to demonstrate the ability to sell diamonds and to add value to those diamonds in some way.

De Beers' efforts at reinvention proved to be an evolving process.



The De Beers/LVMH alliance resulted in the creation of De Beers LV. Stores like this one in New York City were designed to expand the De Beers brand identity to luxury items beyond diamonds.



In a bid to retail its own branded diamonds, De Beers partnered with luxury goods manufacturer LVMH. LVMH outlets included the Louis Vuitton store on the Champs Elysees in Paris.

Independent Producers De Beers Mines D.T.C. Sorting and Evaluation of Rough **Independent Sightholders Other Diamond Manufacturers** De Beers LV Retailing and Jewelry **Consumers**

De Beers' reorganization resulted in vertical integration that allowed it to market its own branded diamonds to consumers. It avoided charges of unfair competition by forming a new diamond jewelry marketing company that bought polished diamonds from major sightholders and large manufacturers rather than directly from its parent company.

Brand names in the diamond business were generally associated with elite retailers like Tiffany and Harry Winston. De Beers sought to change that by capitalizing on the name recognition it had built up since the 1940s through extensive advertising. Its goal was to make a De Beers branded diamond distinct from other diamonds and also to associate the prestige of the name with other luxury items.

To create its new retail division, De Beers partnered with luxury goods manufacturer LVMH Moet Hennessey Louis Vuitton. LVMH distributed brands that fit De Beers' new vision, such as its Louis Vuitton luggage, handbags, and accessories.

The independent, equally owned joint venture was named De Beers LV. It had exclusive worldwide rights to the De Beers name for luxury goods. Its focus was on marketing De Beers diamond jewelry directly to consumers. After initially opening a few stores in London, Tokyo, and New York, the company set its sights on building 150 stores worldwide.

De Beers LV was conceived as being completely independent of De Beers mining companies and the DTC. De Beers management had no operational involvement in the day-to-day running of the new company. Instead of buying rough diamonds from De Beers or the DTC, De Beers LV bought its polished goods from sightholders and other sources.

In 2006, the De Beers LV brand became De Beers Diamond Jewellers. Under any name De Beers was compelled to keep the new venture structurally separate from itself for legal reasons. De Beers was already the subject of various lawsuits in the US, largely stemming from its 1990s practices when the company still ruled the diamond industry.

In an effort to move on with its new identity, De Beers settled two significant US lawsuits. One was for antitrust violations in the sale of industrial diamonds. The other was a class action suit against the company for keeping the price of diamonds artificially high.

The new De Beers faced not only legal issues from its past, but also marketing issues for its future. The results of the great branding experiment were mixed at best. There was a growing sense in the industry that diamonds, unlike luggage and clothing, did not lend themselves to the kind of branding that De Beers had envisioned. There were signs, too, that De Beers' marketing partners did not want to continue making the huge investment in time and money needed to make it work.

DE BEERS AS CORPORATE CITIZEN

Among its many changes, the twenty-first century De Beers took serious strides to reposition itself as a good corporate citizen. In many ways, its advocacy of corporate responsibility had a more profound impact on the diamond market than its advocacy of branding.

The centerpiece of this effort was what it called its *Best Practices Principles (BPP)*. De Beers formally introduced BPP in 2001 to guide ethical business standards for itself and its sightholders.

The principles addressed consumer confidence first. Like any other luxury item, natural diamonds depend upon an image of prestige. They often symbolize milestones in people's lives, giving them higher emotional importance. Consumers rely on the knowledge and integrity of the diamond industry to help them make informed choices about diamond quality. One of the declared principles is to uphold the highest professional and ethical standards. De Beers insisted on a similar commitment from each of its sightholders.

BPP also addressed diamond treatments. De Beers sought to assure consumers that their diamond purchases were free of treatment beyond cutting and polishing. BPP also declared non-disclosure of diamond treatments and offering of synthetic diamonds and simulants as natural diamonds as obstacles to consumer faith.

Treatments became an acute issue in 1999 with the revelation of permanent and irreversible diamond color created by a nearly undetectable combination of high pressure and high temperature (you'll learn more about this in Assignment 19). With De Beers so heavily invested in the aura of natural diamonds, the BPP gave the company a leadership position in detecting and disclosing treatments of all kinds.

Equally threatening to the integrity of the diamond trade was the issue of conflict, or "blood," diamonds. In the 1990s, conflict diamonds became a public-relations nightmare for the industry due to growing consumer awareness of the human suffering associated with diamonds from war-torn countries like Sierra Leone and Angola. It became apparent that trading in diamonds from countries where corrupt regimes profited from diamond mining damaged the entire industry and undermined diamond's romantic allure.



As a result of its 1990s business practices, De Beers faced a number of class action lawsuits. The company settled some of them so it could develop a more visible presence in the US market.



De Beers' effort to build a reputation as a good corporate citizen was formalized as its Best Practices Principles, detailed on the company's website.

Key Concepts

De Beers' advocacy of corporate responsibility had a more profound impact on the diamond market than its advocacy of branding.

Best Practices Principles (BPP)—De Beers' formalized commitment of itself and its sightholders to the highest ethical standards.



Angola and Sierra Leone were two of the focal points of the blood diamond controversy. Industry response to the crisis resulted in the Kimberley Process.

Kimberley Process (KP)-Diamond industry program designed to ensure that diamonds crossing international borders are legitimate and do not fund civil conflict or terrorism.

Cutting center—A city, region, or country with a large number of gemstone manufacturers.

De Beers backed the *Kimberley Process (KP)*, the industry response to the crisis. Fifty-three nations ratified the agreement in 2003. It committed all of them and any future signatories to assuring that any diamond crossing their borders carried KP certificates declaring their point of origin as legitimate and not involved in funding conflict. By 2007, there were 74 KP signatories.

The US and the EU have adopted separate but equally strict measures. They all aim to protect the diamond trade from being exploited as a money-laundering or fundraising source for international terrorism.

De Beers revised its BPP to incorporate its commitment to the KP as well as other diamond trading issues that touch on the unjust treatment and suffering of people. The 2007 edition of the BPP imposed strict trading and disclosure practices on De Beers and its trading partners. The issues included human rights, child labor, forced labor, and money laundering to fund terrorist activities.

THE RISE OF THE FOURTH C-CUT

- What factors led to the rise of the Fourth C?
- How does the industry now recognize the importance of cut?
- Where are the world's cutting centers?

It could be argued that of the Four Cs used to measure diamond quality color, clarity, carat weight, and cut—cut has been the least defined. That was largely due to the industry's struggle to come up with a universally acceptable standard for evaluating cut. Repeated attempts to offer precise proportions for grading cuts culminated in 2005. After a 15-year study, GIA, which had introduced its Diamond Grading System in the 1950s, announced that it would issue cut grades in its reports for the first time.

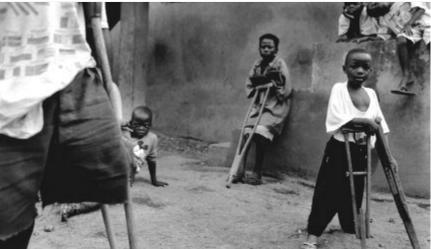
The breakthrough came as a result of three factors. The first was consumer demand for a cut grade, driven primarily by Asian diamond buyers. The second factor was the GIA mandate to provide a scientific basis for all aspects of diamond grading. The third was advanced diamond manufacturing technology.

Israeli engineers pioneered many of the innovations in diamond manufacturing technology. This was partly an outgrowth of Israel's longstanding role as a diamond cutting center. But more importantly, it was a reaction to the growing competition from Asian manufacturers who had a big manpower advantage over their Israeli counterparts.

In the long tradition of industrialization, the Israelis' goal was to use machines to do the work of people better and more quickly. They capitalized on progress in the areas of lasers, computer imaging, and precision measurement and successfully adapted these technologies to diamond manufacturing.

This led to enormous improvements in all aspects of the diamond manufacturing process. Lasers allowed a single cutter to do the work of 20.

NGOs and the Kimberley Process



©Teun Voeten

When NGOs started drawing links between diamonds and scenes like these of war-ravaged children outside a shelter in Sierra Leone, the diamond industry knew it had to act. The Kimberley Process was its response to blood (or conflict) diamonds.

In 1998 Global Witness joined with other non-governmental organizations (NGOs) to focus worldwide attention on the use of diamonds to fund war and terror. In 2000, diamond-industry leaders formed the World Diamond Council to develop policies and procedures to help the United Nations combat the trade in so-called conflict (or "blood") diamonds.

This effort led to a gathering of diamond producers in Kimberley, South Africa. That gathering culminated in the UN-sanctioned Kimberley Process (KP), which took effect in 2003. By 2007

there were 74 signatories to the KP, with the EU's member states counting as one. Combined, they oversee approximately 99.8 percent of the global production of rough diamonds.

Though not an official part of the process, the NGOs that started it all continue to monitor its effectiveness all along the diamond market pipeline. They observe global diamond traffic, looking for breaches in the process. They push governments for greater involvement and survey retailers to gauge the nature and degree of their support for the KP.

A sidebar in *Diamond Essentials* Assignment 6 has more information about the KP and how its diamond-tracking process works.

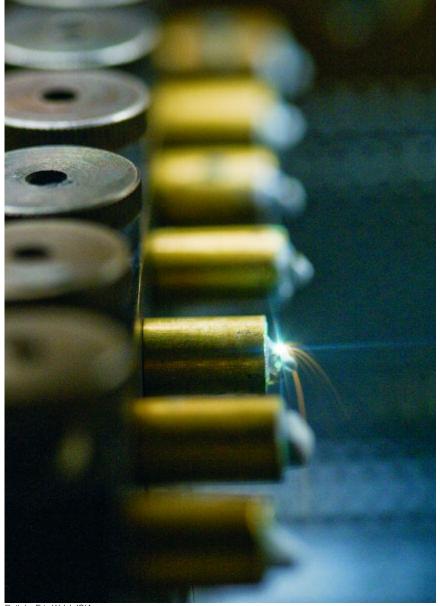


Yves Boucau/AFP

During a three-day World Diamond Congress, representatives of the United Nations discussed ways to supervise diamond commerce. The Congress eventually led to establishment of the Kimberley Process.



Computer imaging helps cutters plan diamond cuts with unparalleled precision.



Both by Eric Welch/GIA

Lasers caused a revolution in diamond cutting by allowing several diamonds to be fashioned at the same time while also increasing cutting precision.

Computer imaging allowed cutters to plan their cuts with more precision. Automatic centering devices allowed cutters to align diamond rough for more focused cutting.

These improvements allowed diamonds to be cut to ever more exacting and exotic specifications. This increased the potential for successful diamond branding. An intense period of creativity, from 1995 to 2004, increased proprietary diamond cuts from little more than a dozen to over a hundred. In this way, the diamond industry was beginning to meet the needs of more discerning diamond consumers.



The world's established diamond cutting and trading centers are in Belgium, India, Russia, Israel, and the United States. Centers in Africa have also emerged, and China is poised to become the next major diamond cutting center.

CUTTING CENTERS

To fulfill its commercial potential, a rough diamond must pass through a cutting center, a place with a large number of diamond-manufacturing businesses. Several factors determine the way a cutting center operates. They include local customs, government regulations, labor costs, prices, and the variety of goods available.

Each cutting center has its own identity. One might be known as the best place to go for high-quality diamonds, another as the best place for small diamonds. Some are free-trade zones where no taxes or tariffs are collected.

Some cutting centers, like Antwerp and New York, are also major diamond-trading centers, where diamonds are bought and sold. Antwerp, for instance, is the key distribution center for rough from BHP's vast mining operations through its sales office in that city. A key feature of a trading center is the diamond bourse, which is a club where diamond dealers meet to sell, trade, and share industry news.

INDIA

India's roots in diamond mining are ancient. Some of the most famous diamonds in history came from India's legendary Golconda region. Today, India's diamond mining is incidental, yet India's status in the diamond trade is immense.



Modern equipment allows a handful of Indian workers to perform diamond-processing tasks that once required hundreds of human hands.



Fric Welch/GIA

India cuts and polishes 90 percent of the world's diamond by volume. Most of that is done in Surat, which has had to overcome environmental disasters and religious conflict to establish itself as a premier cutting center.

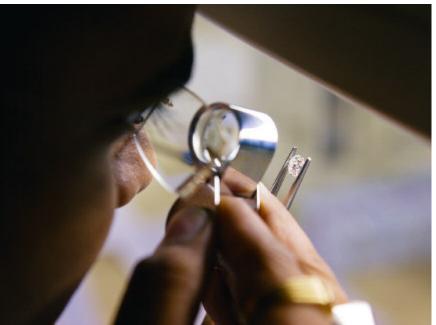
By 2004, the major destinations for most of the world's diamond rough were in India, including the large metropolis of Mumbai (Bombay) and the small town of Surat. More than 90 percent of manufacturing for the diamond market was done in India, employing over a million Indian workers.

A huge diamond consuming class had grown out of India's emerging middle. Without a diamond mine of note on its entire subcontinent, India was as much of a force in the new multi-channel market as any diamond producer.

India's rise to prominence began modestly in the 1970s and took off when it became the primary destination for the Argyle mine's rough. While the cost of cutting that rough would have been prohibitive in more traditional cutting centers, manufacturers in India were able to make it profitable. First they had plenty of low-cost labor available to give the smallish material the intense effort it required. Second they introduced diamond-impregnated polishing discs into the process to prevent the sometimes-brittle stones from breaking.

The Argyle diamond experience perfectly positioned India for taking its commanding place in the new multi-channel market. Its workforce, at first known just for its size, became known for its quality as an entire generation of diamond cutters gained expertise working on Argyle diamonds. By 2008, highly-skilled Indian diamond cutters were taking their expertise to Africa to both train African diamond cutters and reap the reward of higher pay for their work.

India's diamond manufacturers retrofitted their facilities with the latest in diamond-cutting technology, such as lasers and automated bruting



ric Welch/GIA

As its industry has matured, India has moved from processing tiny diamonds to become well known for cutting larger diamonds like this one.

machines. Such advances allowed them to answer a growing demand for higher quality cuts in product as small as "stars"—an industry term for tiny full-cut round brilliant diamonds. Properly cut, a carat of rough can yield about 50 of them.

Indian manufacturers also made two strategic decisions to avoid getting trapped by specialization in small stones. They moved into finished jewelry as a hedge against the softening market in loose stones. And they began processing larger, higher quality stones.

With a virtual monopoly on manufacturing the mass quantities of rough flowing out of Russia and Australia, they expanded their reach. Access to foreign markets was greatly enhanced by the Indo-Argyle Diamond Council, an outgrowth of the original deal between India and Argyle. The Council was especially effective in getting Indian goods into the lucrative US market. Through its marketing arm, the Council initiated deals with mass marketers and retailers in the US.

Indian manufacturers worked closely with the Council's US clients to fashion stones and finished jewelry to meet specific requirements for quality and service. As a result, many US groups established buying centers in Mumbai, near the heart of India's cutting industry. The Council was also vigilant in lifting the living standards of Indian diamond workers.

In 2007, India was cutting and polishing 57 percent of the world's rough by value and 90 percent by volume, making it the dominant processing center. It achieved this lofty status by meeting the foreign and domestic demand for goods in the full range of qualities and sizes, including stones larger than 10 carats.



Sebastian D'Souza/AFP

Although many Indian-processed diamonds are smaller than 0.03 ct., designers use them to great effect in jewelry. This award-winning necklace is set with 1,414 tiny diamonds totaling 132.94 cts.



India initially made its mark in manufacturing by cutting smaller diamonds for jewelry designs like these. The Indo-Argyle Diamond Council helps promote Indian goods to the US market.

Key Concepts

India's diamond manufacturing industry makes it a major force in the new multi-channel market.



A cathedral in Antwerp looms over the city's historic diamond trading district. Antwerp's role as a major cutting center has changed to that of the world's biggest trading center for diamond rough.

OTHER CUTTING CENTERS

While India was gaining prominence, other cutting centers were losing position. Antwerp in Belgium and Tel Aviv in Israel were especially hurt by India's rise.

Antwerp dominated the European gem trade in the Middle Ages. By the 1400s, the city had become a leading diamond trading and manufacturing center. Later, its cutters became well known for cutting large diamonds.

Historically, the city has been the trading center for the majority of the world's rough, polished, and industrial diamonds. It remains a major center for goods sold outside the DTC's distribution channels, and as much as 45 percent of the DTC's sales in recent years have passed through Antwerp. Yet today, fewer of De Beers' prime sightholders are based in Antwerp, and it is no longer a manufacturing hub.

Antwerp's diamond processing industry is under the control of the Hoge Raa Voor Diamant (HRD), which regulates and represents Antwerp's diamond trade. Interestingly, by 2006 members of Antwerp's Indian community had overcome long-standing ethnic exclusion to hold the majority of seats on the HRD's High Council.

When Hitler invaded Holland and Belgium in 1940, many Jewish diamond cutters fled to what was to become the state of Israel. By the 1970s, Tel Aviv was one of the world's leading cutting centers. At first, the country's cutters concentrated on processing small diamonds. But in the 1980s, the country became well-known for its work with large diamonds and fancy cuts.





©Fred Ward 2002

Israel's diamond manufacturing industry, centered in Tel Aviv (right), has met competition from Indian diamond cutters with technological innovation (above) and specialization in precision fancy cuts.

In recent years, Tel Aviv has focused on technological innovation and the production of precision-cut fancy shapes. But like Antwerp, its role as a manufacturing center has declined due to rising labor costs and increased global competition. By 2007, the Israel Diamond Institute was aggressively seeking to reverse the trend by initiating partnerships with China and various African mining countries.

In addition to being a highly specialized cutting center, New York City has long been a major trading center that rivaled Antwerp and Tel Aviv in influence. Customs facilities in New York handle almost half of the global output of polished diamonds on their way to US jewelry manufacturers and retailers. New York meets the challenge of high labor costs by specializing in cutting large, high-quality stones. The city's cutters are known for producing extraordinary diamonds for the world's wealthiest diamond lovers.

China and Thailand are also significant cutting centers. China's growing diamond-cutting industry has become a major competitor to India. Industry estimates are for China's share of the world's diamond processing business to reach 21.3 percent by 2015. It capitalizes on the two factors that vaulted India's diamond-cutting industry forward: low-cost labor and technology. It is also greatly helped by government support.

China's manufacturers specialize in well-cut small rounds produced from well-shaped rough. They have also increased their production of high-quality princess cuts in sizes below 20 points. Many other cutting centers send their goods to China's factories for finishing.



ric Welch/GIA

The Diamond Dealers Club in New York looks out over that city's famed Diamond District along 47th Street.



With help from their government, Chinese diamond manufacturers in Shanghai and other cities are aggressively seeking deals with foreign diamond suppliers. Their goal is to make China a major diamond cutting center.

Thailand has had a long-standing role as a major colored stone cutting center. But in recent years, the Thai capital of Bangkok has increased its involvement in diamond manufacturing as well.

As a direct result of beneficiation and overall nationalist trends, various African countries are also emerging as diamond cutting centers. Industry observers believe that by 2015 as much as 9 percent of all diamond processing will be done locally in mining countries such as Angola, Namibia, and Botswana.



Valerie Power/GIA

Traditional family jewelers as well as big box stores like Wal-Mart are known as brick-and-mortar retailers.

THE TWENTY-FIRST CENTURY DIAMOND **MARKET**

- What are the various types of retail venues?
- How is electronic retailing changing the diamond market?
- What role does Asia play in the financial health of the diamond market?

Regardless of how many channels it takes to get there, the diamond pipeline always ends at the same place—the consumer. Consumers are finding their diamonds in a variety of places, ranging from their personal computers to so-called big box stores like Wal-Mart. The classic local jeweler who services a family's jewelry desires from birthstones through golden anniversary rings is still a presence, but competition is everywhere.

The big-volume buyers—department stores and discounters are among the main competitors. They made their biggest inroad into the market in the 1990s, when they were able to capitalize on the surplus of diamonds in the market by buying them in huge quantities. They were then able to turn around and price them for consumers the market had overlooked in the past. In the process, they created a new diamond buying clientele and established themselves as a viable option for more seasoned jewelry buyers.

ELECTRONIC SALES

Small independent retailers, high volume retailers, and even elite retailers like Tiffany are all commonly referred to as *brick-and-mortar retailers*. This means that their main business takes place within walls in a fixed location. This is to distinguish them from the *electronic retailers* who conduct their business over television or by computer.

The shop-at-home television networks used the same volume-buying tactics as the big box discounters as leverage in pricing diamonds for a more bargain conscious jewelry buying public. Their success has been repeated internationally as US pioneers in shop-at-home television have introduced versions of their shows customized for foreign markets.

As a result of their enormous commercial success, the shop-at-home networks have exposed one of the myths of the jewelry market, particularly the diamond jewelry market. That is, that the act of buying a diamond is such an emotional experience that it must be done person-to-person.

The collapse of that myth has been even more dramatically illustrated by the surge in online jewelry marketing. The television shop-at-home shows were almost as well known for their personable hosts and hostesses as they were for their bargains. But online retailers don't see much benefit from personality driven sales. With little more than a picture, a price, and a description of each sale item, they are finding an eager market for their goods.



Some brick-and-mortar retailers, like Costco, double as electronic retailers by offering their customers the option to buy online. Electronic retailers like Blue Nile are Internet-only operations.



Gilles Mingasson/Getty Images for QVC

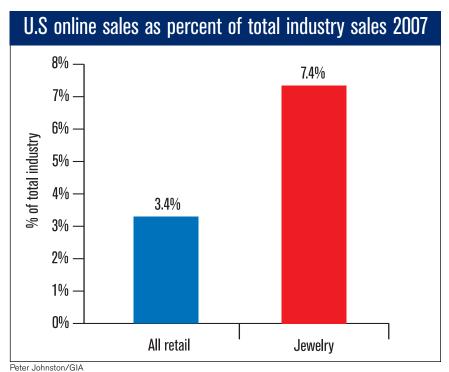
Home shopping programs such as QVC rely on sales personalities to reach customers. The success of Internet selling proved that emotional purchases like diamonds can be made even in the absence of that personality factor.

Brick-and-mortar retailer—A traditional store consisting of walls and a fixed location.

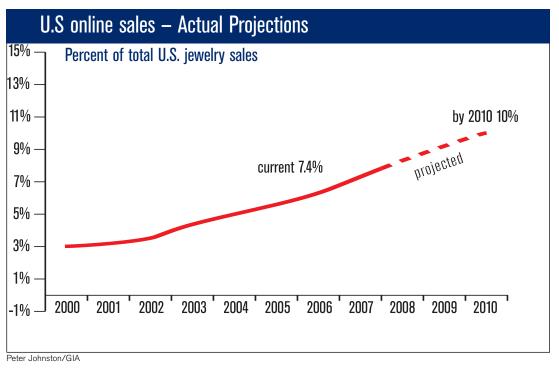
Electronic retailer—Business that sells to consumers via television cable, phone line, or satellite.

Key Concepts

Electronic retailing showed an ability to sell a huge volume of diamonds without relying on the "personal touch."



Online jewelry sales are taking a larger share of overall online sales in the United States.



Online sales of jewelry, especially diamond jewelry, are on the rise.

Consumers are growing more comfortable than ever with buying jewelry—especially diamond jewelry—online. This can be measured in these statistics for 2007:

- Online jewelry sales overall were over 4.8 billion dollars
- Jewelry was among the top 10 fastest growing of all items sold online
- Amazon, the leader in online jewelry sales, reported a one-year 76% increase in diamond sales

It can also be measured in business practices. The impact of online selling has led many brick-and-mortar businesses to establish an Internet presence of their own with the goal of using their online Web sites to support traditional selling. One such strategy is a "site-to-store" deal, where special offers are made online but must be redeemed in-store. Many customers, however, don't need such inducements. They use the retailer sites to research items before walking into the store to make their purchases in person.

The impact can also be measured in the culture. In the US, Cyber Monday, the Monday following Thanksgiving, emerged as the major online buying day. Estimates put more than 70 million shoppers online for Cyber Monday in 2007, with approximately 68 million of them shopping via Internet access from their jobs.

Even the staid auction houses were responding favorably to the growing respectability and viability of online jewelry selling. Sotheby's teamed with online auction giant eBay to conduct its electronic auctions. And Christie's entertains online bids through its Christie's Live option.

The appearance of the "online bourse" has been yet another testament to the impact of the Internet on the diamond market. Diamond retailers and wholesalers can log on to sites specifically designed for the business-to-business trade. As with the traditional bourse, they can buy and sell diamonds, swap news and gossip, and establish relationships with others in the trade. The big difference is that all this can be done globally.

ASIA'S IMPACT

With so many powerful and divergent factors influencing the creation of the multi-channel diamond market, it's difficult to determine which had the most influence. However, it's reasonable to conclude that going forward the biggest impact will be made by the growth of Asia as both a manufacturing center and consumer market for diamonds.

Since the mid-twentieth century, Asia has been steadily transitioning from Third World status to third-of-the-world status. The difference is significant especially as it relates to the two Asian giants, India and China. By 2005, they accounted for 8.3 percent and 8.9 percent respectively of worldwide jewelry consumption. This means that they no longer merely respond to changes in the world's markets, but they now help to shape those changes.



Traditional bourses, like this one in Tel Aviv, were places where diamond professionals could securely make deals and build relationships by swapping news and gossip. Today, the bourse is being imitated by online traders.

Key Concepts

The future of the diamond market in manufacturing and consumption may be in Asia, especially China and India.



Choo Youn-Kong/AFP

In the 1990s, economic recession struck much of Southest Asia. Hundreds of South Koreans lined up outside department stores to sell their diamond jewelry as part of the country's effort to raise foreign currency.



Eric Welch/GIA

In less than twenty years, India went from being known as a source of cheap labor for the diamond industry to being one of the world's most important consumer markets for high-end jewelry.

In the late 1980s and early 1990s, Asia was the primary market for top quality diamonds, which had become too expensive for American tastes. An economic downturn in Asia during the 1990s shifted the flow back to the US, increasing supply there and driving down prices. De Beers had to respond to the collapsed Asian jewelry market by drastically cutting back on sales of rough to the area. This increased De Beers' stockpiles, which factored into the company's major overhaul.

The diamond market is just as sensitive to good economic times in Asia. For instance, in the first decade of the twenty-first century the markets for diamond jewelry in China and India experienced double-digit growth. The effects of this healthy development can be seen in many aspects of the diamond trade.

For one, there has been an increase in De Beers' marketing to the Asian market. Another byproduct was the sudden popularity of colored diamonds in 2002, which was largely due to a fondness for pink and yellow diamonds among Asian consumers. A third example was driven by Japanese preference for well-made diamonds. This led to a new world-wide appreciation for quality in diamond cut.

THE FUTURE

There are developments on the horizon that could have a tremendous effect on the diamond industry before the new multi-channel market is even two decades old. The opening of new diamond mines and continued exploration for more sources would seem to assure a plentiful supply of diamonds. But the demand for diamonds is growing so rapidly that a shortage of rough is not inconceivable.

The projected rise in demand for diamond jewelry between now and 2020 ranges from 3 to 5 percent per year. That would be mostly for larger, high-quality material and mostly from the US, India, and China. Such a steady rise in consumption would drive down supplies and increase prices worldwide.

This could be good news for diamond retailers, as long as other economic factors such as wages and credit availability are healthy. But even under the best of circumstances, many factors make diamond prices hard to predict. For one, various combinations of color, clarity, cut, and size lead to over 16,000 different polished diamond price categories.

In the sense that its hardness is legendary, a diamond may be forever. But if there's one lesson to draw from the industry's recent history it is that the diamond market is not forever in any single shape or form.



Joseph Schubach

Diamonds have long been known as enduring symbols of love and status. The question that remains for the future is whether there will be enough quality diamond rough to meet the growing worldwide demand for high-end diamond jewelry.

Key Concepts

The CSO controlled diamond prices by buying and holding supplies until demand increased.

A finished piece of diamond jewelry has much greater value than a rough diamond crystal.

The low-wage Indian cutting industry allowed Argyle's small, lower-quality stones to be processed for the jewelry market.

Beneficiation helps countries exercise greater control over their natural mineral resources.

New diamond supplies combined with major political and economic events led De Beers to institute dramatic changes.

SOC sightholders had to demonstrate the ability to sell diamonds and to add value to those diamonds in some way. De Beers' efforts at reinvention proved to be an evolving process.

De Beers' advocacy of corporate responsibility had a more profound impact on the diamond market than its advocacy of branding.

India's diamond manufacturing industry makes it a major force in the new multi-channel market.

Electronic retailing showed an ability to sell a huge volume of diamonds without relying on the "personal touch."

The future of the diamond market in manufacturing and consumption may be in Asia, especially China and India.

Key Terms

Beneficiation-A commitment to reserve a portion of the resources derived from any country for the economic development of that country.

Best Practices Principles (BPP)—De Beers' formalized commitment of itself and its sightholders to the highest ethical standards.

Brick-and-mortar retailer—A traditional store consisting of walls and a fixed location.

Conflict diamonds-Diamonds used to finance violence and terror.

Cutting center—A city, region, or country with a large number of gemstone manufacturers.

Electronic retailer—Business that sells to consumers via television cable, phone line, or satellite.

Kimberley Process (KP)-Diamond industry program designed to ensure that diamonds crossing international borders are legitimate and do not fund civil conflict or terrorism.

Supplier of Choice-Program adopted by De Beers in 2001, in which it required its sightholders to help increase market demand for diamonds.

Supplier of Choice 2-Program adopted by De Beers in 2007 to answer critics and resolve shortcomings of its original SOC program.

Vertical integration—Involvement of a business or industry in all aspects of its product's market.

ASSIGNMENT 3

QUESTIONNAIRE

Each of the questions or incomplete statements below is followed by several possible answers. Choose the ONE that BEST answers the question or completes the statement. Then place the letter (A, B, C, or D) corresponding to your answer in the blank at the left of the question.

If you're unsure about any question, go back, review the assignment, and find the correct answer. When you've answered all the questions, transfer your answers to the answer sheet.

1.	Which diamond mine's huge production influenced the world market in the late 1980s?
	A. Ekati
	B. Argyle
	C. Jwaneng
	D. Kimberley
2.	A commitment to reserve a portion of the resources derived from any country for the economic development of that country is called
	A. integration.
	B. beneficiation.
	C. Best Practices.
	D. the Kimberley Process.
3.	A city, region, or country with a large number of gemstone manufacturers is called a
	A. trade center.
	B. market center.
	C. cutting center.
	D. business center.
4.	One of the changes that resulted from De Beers' strategic review in 1999 was that De Beers
	A. stopped advertising diamonds.
	B. doubled its advertising budget.
	C. discontinued its sightholder program.
	D. changed the name of the CSO to the DTC.
	CONTINUED NEXT PAGE

IF YOU NEED HELP: Contact your instructor through the GIA Virtual Campus, or call 800-421-7250 toll-free in the US and Canada, or 760-603-4000; after hours you can leave a message.

11.	By 2004, more than 90 percent of manufacturing for the diamond market was done in
	A. India.
	B. Israel.C. China.
	D. South Africa.
12	The program adopted by De Beers in 2007 to answer critics and resolve shortcomings of
12.	its SOC program is called
	A. Beneficiation.
	B. Kimberley Practices.C. Supplier of Choice 2.
	D. Best Practices Principles.
13.	In South Africa, a new mining charter that designates the people of the country as the
	owners of its mineral resources is a result of
	A. apartheid. B. beneficiation.
	C. vertical integration.
	D. Black Economic Empowerment.
14.	Because the Australians believed the CSO's marketing favored large stones over
	smaller ones, they
	A. abandoned diamond mining.
	B. discarded small, brown diamonds as mine waste.C. turned to India for help in marketing their diamonds.
	D. aggressively promoted jewelry set with their own tiny gems.
15.	A bourse is a(n)
	A. agreement to buy on credit.
	B. diamond buying and selling club.
	C. financial arrangement between miners and cutters.D. disclosure that a parcel of diamonds has been treated.
	•

PHOTO COURTESIES

The Gemological Institute of America gratefully acknowledges the following people and organizations for their assistance in gathering or producing some of the images used in this assignment:

BHP Diamonds Inc., 9 (top left and right)

Collins Family Jewelers, 26 (bottom)

De Beers, 29

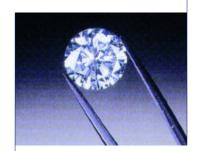
Indo Argyle Diamond Council, cover (left), 23 (bottom right)

Rosy Blue, 20 (right), 30 (bottom)

Shree Ramakrishna Export, 3 (right)

Venus Jewel, 1, 20 (left), 22 (top), 23 (top left)

- 1. Introduction: Beyond the Essentials
- 2. Birth of the Modern Diamond Industry
- 3. The Modern Diamond Market
- 4. How Diamonds Form
- 5. Exploring for Diamonds
- 6. Diamond Mining
- 7. The Diamond Crystal
- 8. Diamonds and Light
- 9. The Evolution of Diamond Cutting
- Finding and Identifying Clarity Characteristics



- 11. Grading Clarity
- 12. Diamonds and Color
- 13. Grading Color
- 14. Grading Proportions-Table, Crown, and Girdle
- 15. Grading Proportions—Pavilion and Culet—and Evaluating Finish
- 16. Grading Fancy Cuts
- 17. Estimating Weight, Recutting, and Repolishing
- 18. Diamond Simulants
- 19. Synthetics and Treatments
- 20. Succeeding in the Marketplace



