The midstream sector of the diamond value chain – those who convert the rough into polished – “rebelled” in 2015. They did so after suffering from a protracted multi-year profitability erosion. For far too long, the rough suppliers had used their combined “rough placing power” by oversupplying the market at unrealistically high prices.

The producers displayed unprecedented greediness towards their own clients and dismissed complaints with brusque statements such as “you look after your business and we look after our own interests. Nobody forces you to buy rough.” That’s exactly what happened in the second half of 2015:

Clients of the main producers refused to buy unrealistically high-priced rough. In an unequal battle, the producers blinked first.

With their very own hands, the dominant producers had embarked on a policy that inevitably threatened the survival of the goose that laid the golden eggs.

The world’s largest producer, De Beers, had its own woes. Its parent company, Anglo American, seemed to
disintegrate, fueling rumors that even De Beers might be on the block of divestibles. It’s mindboggling.

Less than four years ago, Anglo American agreed to buy Nicky and Mary Oppenheimer’s 40-percent stake in De Beers for $5.1 billion in cash. This increased Anglo’s stake in the diamond giant to 85 percent. Justifying the deal, Anglo American’s CEO at that time, Cynthia Carroll, stressed in interviews: “The market is very, very strong. Demand will outstrip supply.”

Just imagine: Anglo American’s market value collapsed this January to $4.7 billion (£2.21 per share) – this is such a low that Nicky and Mary Oppenheimer could have bought the entire Anglo American group for what they received just for their De Beers shares – and still have nearly half a billion dollars in cash left over...

The Elusive Supply-Demand Gap

In 2015, the mantra “demand will outstrip supply” continued, almost ad nauseam, to be dangled before all stakeholders. We repeatedly heard the generally accepted though utterly erroneous promise of an inevitably looming “supply gap” in which consumer demand could only be met through moving up the polished price curve. In fact, volatile polished prices mostly continued a downward trend – even when rough supplies were reduced from 170 million carats a year not long ago to 124 million carats in 2015.

These utopian forecasts are based on the hypothesis that diamond consumer demand grows in tandem with GDP (or GDP per capita) in the respective consumer markets. This is an oversimplified, archaic and flawed assumption. [See graph.]

Price volatility is actually quite a recent phenomenon in an industry that has grown accustomed to a cartelistic structure underwriting price stability. It has changed the terms of trade [See box on page 5]. When working with stable prices, the market midstream (manufacturers, traders) can work on slimmer margins, as they do not need to maintain extra financial

- continues on page 4

---

Nicky and Mary Oppenheimer could have bought the entire Anglo American group for what they received just for their De Beers shares – and still have nearly half a billion dollars in cash left over...
### Direct Costs of Rough Production

- **Angola**: 1.08 billion
- **Namibia**: 1.1 billion
- **S. Africa**: 1.0 billion
- **Canada**: 1.9 billion
- **Lesotho**: 0.3 billion

### Direct Mining Cost of Production

- **Independent Producers**: 5.8 billion
- **Alrosa**: 3.4 billion [64% long term contracts; 21% spot sales; 18% tenders]
- **De Beers**: 4.1 billion [90% long term contracts; 10% tenders]

### Mines Sales to Industry

- **Belgium**: 0.3 billion
- **Israel**: 0.9 billion
- **India**: 1.2 billion
- **USA**: 0.2 billion
- **Southern Africa**: 0.9 billion

### Net Rough Used for Local Production

- **Belgium**: 0.3 billion
- **Israel**: 1.0 billion
- **India**: 1.5 billion
- **USA**: 0.2 billion
- **Southern Africa**: 1.1 billion

### Value of Polished Production

- **Belgium**: 0.3 billion
- **Israel**: 1.0 billion
- **India**: 1.5 billion
- **USA**: 0.2 billion
- **Southern Africa**: 1.1 billion

### Value of Recycled Diamonds (Consumers Sell Backs) Re-Entering Pipeline

- **USA**: 38%
- **Japan**: 7%
- **India**: 11%
- **China**: 11%
- **HK**: 11%

### Retail Sales of Diamond Jewelry

- **USA**: 30.1 billion
- **Japan**: 5.66 billion
- **India**: 8.4 billion
- **China**: 8.06 billion
- **HK**: 1.53 billion
buffers to withstand the volatility. As volatility increases, the midstream’s need for higher margins will only amplify.

Those players who do not understand the need to work at higher margins will simply go out of business, leaving the “survivors” in the midstream that operate on a higher overall margin. This, in turn, will affect the rough selling prices, which would be realized by the producers. A redistribution of the added value (profits) throughout the diamond value chain is in progress – a process that commenced in earnest in 2015.

The combination of market realities and a myriad of structural changes have dramatically changed the pipeline’s competitiveness. Such structural changes include the emergence of gem synthetics as a viable economic substitute – not only at retail levels but also for the labor-intensive midstream. For the first time, the buyers of rough (the manufacturers, cutters) have choices – they have leverage over their producers.

As an analysis by the midstream’s erstwhile largest banker, ABN-AMRO, recently observed: “The industry seems to have moved from a win-win situation to a zero-sum game. … The middle segment is pushing back at the producers. What happens next depends on their response.

They can limit production. This will work, but, eventually stronger price competition and more transparency appear inevitable.”

The heading of the banker’s analysis seemed ominous: “Nothing is forever…”

Producers Changed Marketing Models

In the third quarter of 2015, the predictable happened: having experienced further 12-15% declines in polished diamond prices, sightholders refused to purchase any more rough at the then-current price levels. Reluctantly, the terms of trade were changed. Contractually obligated clients were allowed to postpone their purchases and to reject ever-growing parts of allocations.

Reality has finally caught up with De Beers. Looking at the DTC sales figures for the last 40 years, the second half of 2015 De Beers sales have set a 30-year record low, at levels last seen in 1985.

The rough producers’ 2015 pricing behavior was erratic. De Beers says that over the year it reduced rough prices by an average of 8% - though the average price of the last sight was 15% below that year’s first sales cycle. In 2016, the market says prices fell a further 7%-9%.
It is startling how the exuberance in rough buying in the first half of the year has been a prelude to a buyers’ “revolt” (almost like a buyers’ strike) in the latter half of the year. There was no serious external demand shock to warrant this severe fall – which was wholly attributable to producer’s “over-pricing.”

For many players in the midstream, these rough price corrections may have come too late. In November 2015, Stanley Morgan analysts conveyed their impression of (Antwerp) diamond market sentiment, suggesting that “out of US$16 billion in loans outstanding to the midstream market, there may potentially be a US$6 billion in non-performing loans.” This is probably grossly exaggerated ($3 billion would be a more realistic figure). In the diamond industry, experience has shown that bankruptcies take about 3-5 years to materialize, from the time the losses are made, till the time the business finally declares bankruptcy. We might see the true effects of 2015 in the mid-stream only by 2020.

A corollary to such publicly expressed sentiment is that financial institutions are rapidly exiting the midstream financing business – only in Dubai and India one finds newcomer banks testing the waters. As diamond producers traditionally sell for cash, and their customers (sightholders) depend on bank-financing to purchase rough, the drying out of midstream liquidity has added to the pressures on both producer sales and selling prices. Banks don’t like to finance unprofitable transactions – or lossmaking entities.

The Symbiosis of Bank Financing and Rough Supplies

In every phase in the diamond pipeline, the supplier provides credit. There is only one exception: rough sales from the producers to the industry. In some cases (De Beers), the money must be credited to the supplier’s bank account before the goods leave the seller’s premises. In some cases (India), this necessitated specific regulatory approvals since, normally, imports can only be paid when the goods arrive into the country.

As a general rule, diamond financing may be up to 60-80%, but for sight shipments from primary producers, 100% financing was often the rule rather than the exception. Historically, De Beers maintains a close liaison with the industry banks financing their clients. Our research has
shown that there is a close relationship between levels of industry debt and rough supplies. When there is more money (i.e., more financing facilities), diamond dealers tend to buy more. When money is tight, purchases decline. The attached graph speaks for itself.

Therefore, it is not surprising that reduced rough supplies translated into a reduction of the debt down to some $13 billion. The most intriguing question for 2016 will be: when rough sales are stepped up again, will the banks allow the increase in borrowing levels?

**Exacerbating Pipeline Anguishes**

Looking at the 2015 diamond value chain performance, the midstream sector, which had been in prolonged pain for quite a while, saw themselves joined by the upstream producers, which were experiencing their own woes. Exacerbating pipeline anguishes, essentially a wider sharing of the agony, neither lessens the pain nor consoles those who are once more clinging to the erroneous belief that the industry has already passed bottom of just another cyclical decline in diamond sales and prices.

This is in marked contrast to the downstream side. While, generally, commodity markets seemed to be plunging, global diamond jewelry sales saw a modest decline of some 3.5%. Meanwhile, polished diamond sales, expressed in polished wholesale prices (pwp), fell by slightly over 10%. These are not the steep cyclical declines analysts are talking about. Rather, they point to far deeper structural transformation of the entire diamond industry – a transformation that few players are ready to recognize or accept.

The producers, as we shall discuss further, have lost much of their historical leverage over midstream and downstream. Their historically high margins will gradually decline and not rise again. The structural changes have made it a new ballgame. That’s the main lesson learned from the year that was.

**2015: Reviewing the Figures**

The reduced production towards the end of 2015 (mainly by De Beers) reduced the planned production
The traditional monopolistic and oligopolistic policies of diamond producers always aimed foremost at maintaining price stability. Supply manipulations were used to drive the price of diamonds up gradually but consistently over time. (Careful reading of historical agreements between the Diamond Trading Company and producers shows that a fall in prices was hardly considered as a possible scenario.) Price volatility creates, in some ways, havoc to the diamond value chain, where many stakeholders – miners, manufacturers, traders and even retailers – may have invested their equity in diamond stocks. Volatility that is considered normal in stock exchanges or in currencies is, somehow, expected to bypass the diamond pipeline. It doesn’t.

Long Convoluted Pipeline

The diamond pipeline is a “long one” in terms of time. At an average, it may take 26-30 months for a diamond sold by the producer to end up on the finger of consumer. One of the reasons (call it “rationales”) for sightholders agreeing to overpay for rough is the expectation that by the time the resultant polished hits the market, prices will be higher. That’s the reason trade sentiments play such a vital role in the pipeline.

The 26-30-month pipeline is a function of the time each diamond sojourns at each phase: in sorting, in manufacturing, in grading, in selling, in jewelry manufacturing, etc. A retailer will generally (it changes from location to location) turn its stock around once a year. Thus, as an average, he will maintain one year requirements in stock. If the diamond industry sells almost $20 billion of polished per year, it implies that all rough and polished in the pipeline, translated into polished values, will be close to $45-50 billion. That’s not a stock overhang – that’s the normal stocks needed for this industry to function normally.

This rationale works as long as producers ensure that polished prices are driven up constantly. It has become clear that in recent years, for all kinds of reasons, the ability of producers to impact polished pricing through rough supply manipulations and rough pricing has become limited. It is well known that these drivers can generate both short- and long-term volatility. In the financial markets, price volatility is caused by different factors of which speculation, hedging, pension funds investment, commodity trading advisors, etc. impact price levels. Some of these elements also play out in the diamond market (and more so in gold).

As during any given (recent) year, a $50-billion pipeline inventory may be worth either $45 billion or $55 billion, a snapshot – and that’s what our pipeline represents – may be quite different depending on the moment the picture is taken.

One of the reasons (call it “rationales”) for sightholders agreeing to overpay for rough is the expectation that by the time the resultant polished hits the market, prices will be higher.

We have published our annual pipeline since 1989, and we endeavor to be consistent in our methods and as accurate as possible. We are not qualifying our figures – but rather want to stress that volatility is impacting the pipeline in many ways – and one should be cautious (and keep this in mind) when interpreting our figures.
growth. At the end of the year, global production in terms of volume remained at the 124 million carats level, similar to 2014. In terms of value, production declined from $16.52 billion in 2014 to $15.45 billion last year. The efforts to defend high rough diamond prices were visible in the 20% lower sales to the market – from $16.7 billion in 2014 to $13.3 billion in 2015.

This led to significant rough stock increases by the main producers, De Beers and Alrosa. While these companies displayed restraint, other producers continued to sell their full output. Thus, the sharp cut in sales by the majors was slightly offset by an increase in sales of the small independents. This led to a one-time statistical aberration: the relative market share of the small independents (including Dominion and Rio Tinto) increased from 31% to 44%. At the end of the day – to the midstream, this was just a matter of price. Rough demand remained buoyant for those goods that were properly priced.

De Beers got the message (while that cannot be said of other producers). In 2016, it reduced rough selling prices by some 10% and improved assortments. As such, it was able to sell $1.15 billion in the first two sales cycles out of the 10 cycles planned for the entire year. De Beers Group President and CEO Philippe Mellier attributes these higher sales to “retailer restocking after the end of year holiday season [which] is supporting demand for polished diamonds and, in turn, we are seeing improved demand from the midstream for rough diamonds.”

Our thoughts are different. We believe that the restocking was at a wholesale level, i.e., factories were so starved of rough, that when they saw a sliver of profitability in the rough in 2016, they went ahead and bought it. We take the view that the underlying market fundamentals didn’t change, and that the restocking (in selected goods) is mainly making up for shortfalls created by the 20% reduced rough sales – which squarely fell in 2015’s fourth quarter.

Our economic models show a 12% fall in polished sales (in polished wholesale prices – PWP) from $21.8 billion in 2014 to $19.2 billion in 2015. A partial bouncing back is forecasted for 2016, where we expect a 4.8% increase in polished sales to $20.1 billion – still significantly below the 2014 level.

The value of the diamond content in the retail sales also fell, from $23.01 billion to $20.5 billion. The global diamond jewelry retail sales, which De Beers and those relying on its figures claims has surpassed the $80 billion level in 2014, also contain an “invisible reduction”: There is “less diamond” in diamond jewelry, as the average diamond content fell from 29% to 27%.

Our economic models show a 12% fall in polished sales (in polished wholesale prices – PWP) from $21.8 billion in 2014 to $19.2 billion in 2015. A partial bouncing back is forecasted for 2016, where we expect a 4.8% increase in polished sales to $20.1 billion – still significantly below the 2014 level.

The high expectations on the Chinese and Indian markets never realized. To the contrary, the active anti-money-laundering and anti-corruption policies pursued by the Chinese government are the main contributors to the weakness of China; those there who have the money to purchase expensive jewelry are reluctant to do so and don’t want to flaunt their wealth.

**Gem-Quality Synthetics Rise as Product Substitution**

For years, we have been signaling the enormous impact that gem-quality synthetics will have on the diamond...
pipeline. This isn’t just theory. In 2015, in a diamond market
plagued by overpriced rough prices, more manufacturers
recognized that to the midstream, the undisclosed mixing of
synthetic (lab-grown) gem diamonds with natural diamonds
enables a manufacturing cost reduction that restores
competitiveness at profitable
prices.

However, even when marketed clearly as “lab-
grown,” the product is perceived
by retailer and consumer as
diamond jewelry. Therefore,
synthetics have become an integral part of the diamond
supply chain and of diamond demand. While we would
like to see lab-grown diamonds as a separate product and
supply chain, when it comes to the consumer’s wallet, it
still remains a single chain, whether disclosed or otherwise.

In the 2015 value chain, the impact of synthetics is
recognized. In terms of value, it may not exceed $0.5 billion,
and 3% of polished sales. The
largest gem (CVD) synthetics producer, Ilia Technologies
in Singapore, produced 400,000
rough diamonds last year. Its polished output is mainly in
the 0.5-1.2 million carat range.

GIA experts estimate that gem-quality CVD growers
can grow 50 microns (0.05 millimeter) of high-quality
1.0-3.2-carat colorless and near colorless diamonds per
hour per grower. New Age Diamonds (Russia) can produce
8,000-10,000 carats of HPH all month. Its 30 presses
produce colorless or near colorless diamonds sized 4-10
carat per stone. Unlike natural diamonds, gem-quality
synthetics can be produced “to order” in terms of sizes and
qualities. The cost of production
is constantly being lowered.

**Synthetics Support**

Midstream Labor Force

In the diamond value chain, the inherent danger of product
substitution from outside the
diamond mining industry is
greatest to the natural diamonds miners, which, until
now, have not really faced competition. They were never
exposed to real price competition. There were economic
price setters – and the fringe followed.

This is especially true for the close to one million diamond
cutters and polishers (mainly in India and China), who only
“consumed” natural rough. Without continuous supplies,
factories closed, workers were laid off. This is no longer
the case. In the very small goods (a few pointers), it is
estimated that a sizeable percentage of Surat and China
production may be synthetics. Nobody really cares anymore, as
in these sizes, the material costs
per stone is far less than the labor
costs. But the threshold of what
is “acceptable” or commonly
“accepted” is gradually moving
upwards in sizes – and this trend will continue.

In a way, to the midstream and downstream (retailers)
it’s solely a matter of economics. These players merely
manufacture rough and/or sell the resultant polished.
Their profits come from the margins of the added value.

As one industry leader recently told a Tel Aviv diamond
conference: “On every dollar
I have invested in synthetics, the returns are far higher than
any dollar invested in natural
diamonds.”

At the end of the day, for
some of the manufacturers and
retailers, manufacturing and selling synthetics may turn
out to be quite beneficial – especially when one is focused
on the bottom line.

The Industry’s New Choices

The asymmetry (or lopsidedness) of the synthetic threat
will gradually increase the leverage (and bargaining
power) of the diamond manufacturers (sightholders) over
the diamond producers. Moreover, the “threat” to the
producers – which they now apparently fully recognize
– will impact their marketing
behavior and mining strategies.

For starters: the oligopolistic
(natural) rough suppliers may
be forced to ensure that their
customers will earn better
margins, lest they be lured away
to more lucrative disclosed
or undisclosed synthetic
manufacturing or marketing. As the rough clients face
liquidity challenges with banks leaving the industry,
producers may be forced to provide supplier credits.
This is not the place for extensive scenario planning and
simulation, but the so-called “looming supply gap” will at
least partly, if not largely, be met by synthetics.

The producers have conditioned the industry to believe that “what’s good for the producers must be good for all of us.” 2015 was the year the sightholders “rebelled” and left their contractually obligated rough allocation “on the table” – and got away with doing so. Last year demonstrated the new midstream leverage over natural producers. The midstream and downstream now have choices that they didn’t have before.

From a value perspective, these aren’t pleasant choices between equal products. For many of us, it is a choice that one hopes would not exist – but it does. And for many, it might be the difference between the life and death of their companies.

In the words of one industry leader, there clearly is no “one size fits all” approach to success.

Recycling: Expectations Higher than Warranted

In 2015, several present and new industry players continued to institutionalize diamond recycling: buy-backs from consumers, retailers, pawn shops, we even know about arrangements with divorce lawyers who assure that the symbol of failed marriages gets back into the pipeline. Even De Beers has its recycling buy-back operations – apparently in an effort “to assure fair pricing.”

As part of the supplies to the market, our research shows that in 2015, recycled diamonds saw almost a 25% decline from the previous year, down to some $0.35 billion. Just as with synthetics, mine production of rough diamonds will be impacted (McKinsey says: “complemented”) by diamonds re-entering the value chain. McKinsey observes that “recycling of precious materials closely follows financial distress. Therefore, during times of financial stress, consumers may feel compelled to recycle their diamond jewelry, increasing the overall supply of diamonds.”

In quite a puzzling report, McKinsey predicts that “even under the most aggressive assumptions, recycling will likely only represent about 1/3 of supply by 2025…….” Though one intuitively may be inclined to reject such proposition as an exaggeration, mainly serving as justification for a producer to enter into this field, it nevertheless may yet happen – but certainly not because of financial distress.

We believe that diamond recycling may have more to do with the attitudes of the Millennial generation – which
simply may not value diamond ownership in a way their parents did. Social norms are changing. Luxury may lose some of its luster.

Problematic Change in Consumer Attitudes...

To Millennials – and not only to them – luxury is the reflection of an unequal society. Conspicuous consumption of luxury goods and services, and especially diamond jewelry, is a way of demonstrating membership of society’s elite. It reflects a consumer’s willingness to make excess payment far above the product’s marginal costs. It represents the desire of the wealthy to pay a premium just for the privilege to differentiate themselves from the rest of society.

There are governmental policies in OECD countries decidedly moving to close the inequality gap, to cap outrageous salary bonuses, to fight poverty, to impose austerity policies, to battle inequality and social exclusions. Ostentatious behavior may no longer impress one’s peers or be appreciated by society and governments.

In taxation guidelines issued by the OECD, it advises member nations to impose “specific consumption taxes on products that cause environmental damage, discourage unhealthy consumption, enable reduced income tax, promote long-term growth.”

Labor and other resources spent on producing luxury goods, in the eyes of the OECD, divert capital away from more economically desirable uses. Economists view luxury spending as an ineffective use of resources that can be used for more constructive purposes. It’s not without reason that diamond producers and industry groups plan generic promotion focusing on “the good” (to employment, African nations, etc.) diamonds are doing. The sooner, the better.

While presently, inequality seems to be rising, this seems to have triggered a strong governmental and societal reaction towards a more egalitarian society – and the Millennials, the younger generation which will rapidly have the greatest spending power, are embracing other values.

Diamonds Losing Share in Luxury Wallet

We have signaled in earlier presentations that diamonds are losing their share in the luxury wallet. Also worth noting is that total luxury wallet spend in a household’s overall expenditures is declining – and will continue to do so. These are just a few of the underlying sentiments that made 2015 the year that was – a year in which producers lost their leverage over their customers, and a year in which a new supply paradigm emerged. The entire pipeline will now have more options and choices – and will become more competitive.

At the end of the day, the consumers set the diamond agenda. They are the end (or maybe the beginning) of the value chain. As dozens of small and large retailers are now selling lab-grown (synthetic) diamonds, all the theories of “product differentiations” have become overtaken by events. When a customer walks out of a high-street jeweler with a synthetic diamond ring, this equals one natural diamond ring that wasn’t sold. Producers are claiming that they “mine in
until now, they have not really faced price competition. Synthetics impact natural rough and polished prices [see graph.] Ultimately, they will also impact decisions on the feasibility of new mining and exploration projects. The scarcity factor – always the main value driver of diamonds – may gradually erode, together with prices. It may take time – but one must face up to it. Admittedly, living in denial makes life much more comfortable... ♦

accordance to demand," and production cutbacks are motivated by a desire to support price and create shortages, which will drive up polished prices. Ironically, shortages will mostly benefit those selling product substitutes.

The upstream players – the miners and explorers – have not yet internalized that the danger of product substitution from outside the diamond mining industry is greatest to the natural diamonds miners. As we have already said, until now, they have not really faced price competition. Synthetics impact natural rough and polished prices [see graph.] Ultimately, they will also impact decisions on the feasibility of new mining and exploration projects. The scarcity factor – always the main value driver of diamonds – may gradually erode, together with prices. It may take time – but one must face up to it. Admittedly, living in denial makes life much more comfortable... ♦