



Coloured gemstones

The often overlooked relatives of the diamond



How large is the coloured gemstone market?

Coloured gemstones do not support trade on the same scale as diamonds, with US\$16bn in rough diamonds produced yearly worldwide versus US\$2–3bn in rough gemstones, excluding jade.

That is not to say diamonds are more expensive than coloured gemstones. In fact, contrary to common belief, data from Sotheby's and Christie's auctions show per-carat prices for emeralds and rubies can exceed white diamonds.

Historically, De Beers dominated the diamond sector, and a good deal of the success of diamonds can be traced back to its famous 1947 marketing campaign, 'A diamond is forever' which popularised diamond engagement rings (in 1940 just 10% of brides in the United States received a diamond engagement ring).

By comparison, small-scale artisanal mining makes up 70–80% of coloured gemstone production. The fragmented market leaves few big companies to champion and actively market coloured gemstones.

The artisanal nature of the market can deter designers from using coloured gemstones in their ranges, fearing inconsistencies in supply common to small mines. But as larger companies such as Gemfields provide more consistent supply, confidence increases in the sector.

What are coloured gemstones?

Like all gemstones, coloured gems are minerals prized for their beauty and rarity, often in crystalline structures and sometimes organic in origin, such as amber and jet. In many coloured gems, the brilliant hue, which makes them sought after, is the result of impurities.

For example, rubies and sapphires are derived from the same mineral, corundum. In rubies, traces of chromium absorb yellow-green light, giving them a red hue. Traces of vanadium tint sapphires blue, whereas traces of iron create yellowish-green colours. Sapphires tinted any other colour than blue

are called 'fancy sapphires'. Finally, emeralds are a beryllium aluminium silicate mix that is colourless when pure, but chromium or vanadium lead them to reflect green light.

Where are coloured gemstones mined?

Coloured gemstones are extracted in large quantities in Asia, South America and Africa. One of the unique aspects of the coloured gemstone market is that the particular characteristics of the jewels vary considerably by source. That provides a powerful opportunity for producers to create a strong marketing story around their specific gemstones.

Colombia, Zambia and Brazil produce most of the world's emeralds. Historically, Colombia was the undisputed leader in emerald production and still produces around 50% of the world's emeralds. But Zambia has become an increasingly crucial producer, breaching the market with emeralds prized for their bluish-green colour, partly because they require less treatment than other emeralds.

After the discovery of huge ruby reserves in the country around 15 years ago, Mozambique became the largest player in the ruby market, with Burma also a key producer. Australia is the largest producer of blue sapphires with Kashmir, Sri Lanka and Madagascar also key.

What are the risks inherent to the coloured gemstone market?

The artisanal supply chain of coloured gemstones is particularly susceptible to volatility.

The significant proportion of mines operating in countries with higher levels of political risk (such as Myanmar) can also add to supply volatility. In diamonds, De Beers' dominance has allowed it to standardise procedures and develop the Kimberley Process, together with other diamond producers, to prevent conflict diamonds from entering the supply chain. However, in this regard, the gemstone market still lags somewhat.

As consumers become ever more aware of sustainability and sourcing issues, there is an opportunity for those

Edison's insight

'Diamonds may have dominated the global gemstone market for many years, but we believe coloured gemstones will be the key growth area over the next decade.'

Alison Turner, Edison mining analyst

mining gemstones of proven provenance to capitalise on that from a market perspective.

Which companies are involved in mining coloured gemstones?

Gemfields is world's largest coloured gemstone producer. It owns 75% of the world's largest emerald mine, Kagem, and 75% of Montepuez, the world's largest ruby mine.

In a highly fragmented market, the majority of companies involved in coloured gemstone mining and development are privately owned, including Fura Gems (Australian sapphires, Columbian emeralds and Mozambican rubies), Hexa Resources (Brazilian emeralds), and Rockland Kenya (Kenyan rubies), to name just a few.