

THE ART OF EMBRACING COMMODITIZATION

By Eric Boudier, Anders Porsborg-Smith, and Martin Reeves

CHINA'S ECONOMIC SLOWDOWN has led to overcapacity in many sectors and a significant fall in the prices of many commodities. Although many businesses will regard this as a short-term, cyclical challenge—one they can weather through capacity adjustments—it may prove for others to be something entirely different. It may mark the onset of *commoditization*, a secular and more severe challenge for which businesses may be wholly unprepared.

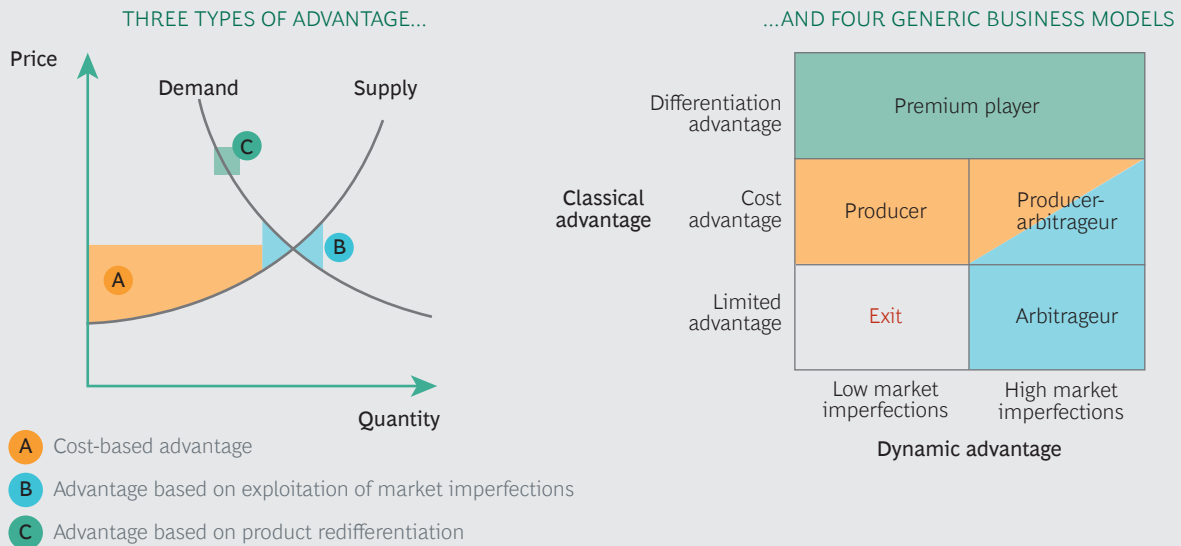
Commoditization is not necessarily a death sentence. (See “Escaping the Doghouse: Winning in Commoditized Markets,” BCG Perspectives, April 2015.) But surviving it, or even benefiting from it, can entail drastic measures, such as rethinking strategy, repositioning the company in the industry's value chain, and overhauling its operating model. Many businesses facing commoditization fail to respond with anywhere near the required boldness or speed, however. Indeed, some may not even recognize or acknowledge the challenge, let alone succeed at crafting an effective plan to address it.

Understanding Advantage in Commoditizing Markets

Eventually, all products become commoditized. (See “BCG Classics Revisited: The Growth-Share Matrix,” BCG Perspectives, June 2014, and “Adaptability: The New Competitive Advantage,” BCG article, August 2011.) A company's optimal strategic response will depend not only on the industry's current state but also on its likely evolution. In attempting to gauge the latter, a company must try to determine whether it can establish a sustainable position on the basis of any one of three factors: its cost position; whether, and to what extent, there are imperfections in the market that it can exploit; and its ability to redifferentiate its product. (See Exhibit 1.)

Many businesses will instinctively lean toward redifferentiating their product (if possible) or creating a cost advantage (if necessary), ignoring the opportunity to exploit market imperfections. But there is potentially significant value to be gained from all three courses, depending on how the industry evolves. Companies that have built the

EXHIBIT 1 | Advantage in Commoditizing Markets



Source: BCG analysis.

capabilities necessary to exploit market imperfections, for example, can succeed with relatively modest capital expenditures and a moderate level of risk, making this an attractive option under the right circumstances.

Cost-Based Advantage. Whether a company can achieve cost-based advantage hinges on the evolution of the cost curve and the company's relative position on it: the flatter the curve, the smaller the potential for advantage in the sector. The potential for cost-based advantage is particularly limited if the process used to make the company's product is itself commoditizing—that is, if the process is becoming available to any competitor and most of the input factors are commoditized. This situation is exemplified by such companies as IBM (which, in selling its PC unit to Lenovo, exited the laptop business) and Nokia (a market leader in the first, pre-2005 generation of mobile phones), both of which were unable to develop significant, sustainable cost-based advantage within their respective industries despite enjoying substantial market share.

In contrast, if the product is commoditized but the process used to make it is not, then cost-based advantage is possible, and low-cost producers can potentially enjoy high margins as high-cost producers create a

price umbrella for the industry. Upstream oil is an industry in which these dynamics hold. A variety of technical and political challenges result in a very steep cost curve; by focusing on the right segments, players can develop a significant cost-based advantage for themselves.¹

Exploiting Market Imperfections. The ability to create a competitive edge by exploiting market imperfections of course depends on the prevalence and nature of those imperfections. Imperfections make it difficult for companies to understand where demand will meet supply and, hence, to predict prices. This often leads to high price volatility. Players able to detect and react to such imperfections can generate significant value for themselves through market arbitrage. The window of opportunity may be finite, however, because market imperfections may disappear as the market commoditizes.² But imperfections can endure if at least one of the following conditions is met:

- **Occasional Undersupply.** This results in the potential for unmet demand. Undersupply often occurs in industries with high capital spending, where it may be too costly for companies to invest in additional capacity that will seldom be used. An example is the

periodic volatility in the price of hard drives, demand for which can sometimes exceed production by the industry's two leading manufacturers, Seagate and Western Digital.

- **Double Inelasticity.** Here, the supply curve and the demand curve are simultaneously steep, which can lead to large fluctuations in prices in response to small changes in supply or consumption. This dynamic explains the high price volatility in generic medicines, for example.
- **Exogenous Exposures.** Here, unpredictable factors drive potentially large changes in demand or supply curves. Examples include the food and airline industries, where demand curves are subject to weather conditions.
- **Logistics Bottlenecks.** These can lead to an imperfect flow of goods in time and space. Short-term freight rates in a given geographic area can vary greatly, for example, because they reflect daily variations in supply and the limited ability of service providers to adjust capacity quickly to accommodate demand.
- **Product Heterogeneity.** Even small differences in product quality and specifications can change supply-and-demand dynamics and prices. These price differentials are not necessarily well correlated with the differences in value that users assign to products, creating arbitrage opportunities. Examples can be found in the pharmaceutical market, where imperfections in the pricing of certain molecules can present attractive arbitrage opportunities for makers of generic drugs.
- **Information Asymmetry.** When different players use different sources of information, they will rely on different ways of estimating a product's fair value. The same painting, for example, can be valued very differently by buyers and sellers, resulting in significant value creation opportunities for art dealers.

Product Redifferentiation. The overhaul of a product's characteristics and value proposition can be a highly effective way to confront commoditization. Redifferentiation is often the default path of players in commoditizing markets. But companies must be wary of wishful thinking. Successful redifferentiation is possible only if a company can create a premium product that pays off, meaning the market value of the premium exceeds the company's associated costs. Redifferentiation can be difficult to achieve in the following circumstances:

- The production process is very mature, and little technological progress is expected.
- Pricing transparency is high, making it possible for customers to readily gauge the value of differences in product quality or delivery.
- The industry's value chain has already been deconstructed, and there are few discernible synergies to be achieved through its reconstruction.
- There are diminishing marginal returns on incremental increases in marketing spending.
- There are cost-effective substitutes for products, giving customers real choice and flexibility.

Many of these challenges are present in the case of mobile phone carriers. Although the sector has many of the characteristics associated with a natural oligopoly (such as high fixed costs, network effects, and concession dynamics), regulatory measures and consumer familiarity have promoted commoditization, with predictable results. The value of subscriptions is becoming increasingly transparent to customers; customer acquisition costs are rising; and customer loyalty is decreasing. This has forced incumbents to think about their commoditization strategies and how to avoid a race to the bottom.

For companies that are in premium positions within their respective industries,

product redifferentiation is typically the default strategy for dealing with commoditization. While the strategy can work quite well for some—Starbucks, for instance—many companies will find it tricky to execute successfully. Achieving cost-based advantage or advantage through the exploitation of market imperfections may prove to be more viable approaches. We devote the rest of this article to how companies can build classical or dynamic advantage when redifferentiation is likely to fail.

Choosing the Right Business Model

To capture maximum value from opportunities to create classical and/or dynamic advantage in a commoditized industry, a company will need to deploy the right business model. The choice of model—producer, arbitrageur, or producer-arbitrageur—should be driven by the dynamics of the industry and the company’s access to value-creating capabilities.

Producer. A producer extracts its value from the difference between the market price of the company’s product and its cost of production. To maximize profitability, a producer will likely pull all available levers to decrease its cost position. These levers include the following:

- **A Superior Asset Base.** Gaining access to low-cost or advantageous assets typically requires politically savvy business development capabilities. A superior asset base can be particularly valuable in commodities, where access to the right reserves can play a determining role in a company’s cost competitiveness. It can also be highly valuable in labor-intensive process industries, where access to cheap labor is a key success factor.
- **Excellence in the Deployment of Capital.** Strong performers in capital deployment are typically excellent at identifying, prioritizing, designing, and delivering large capital projects. Their capital development process is rigorously stage-gated and well fitted to the size

and complexity of projects. These companies also invest heavily in developing superior project management capabilities because they know they have only one chance to get a given project right.³

- **Scale and Experience.** Scale not only allows for lower unit costs, it also enables a company to move faster along the experience curve, reducing its manufacturing costs. (See “BCG Classics Revisited: The Rule of Three and Four,” BCG Perspectives, December 2012.) Companies can build scale organically or through acquisition. Samsung, for example, is currently benefiting materially from experience curve effects in the manufacture of its Android smartphones: the company produces new components first, before its competitors, and then maintains a cost advantage as the components become available to the rest of the industry. Mind you, scale advantage does not automatically lead to cost advantage; to bring that about, operational excellence is necessary.
- **Operational and Process Excellence.** Best-in-class operators institute stable processes and integrate continuous-improvement routines into those processes to ensure ongoing progress. They use technical KPIs to measure the contributions of individual departments (for example, in productivity). Decisions about value chain optimization are typically made high in these companies’ leadership hierarchies in order to avoid suboptimal decisions that could hurt their overall cost position; such decisions are often made monthly or quarterly.
- **Excellence in Developing Cost-Saving and Efficiency-Boosting Technologies.** Companies that are able to develop technologies and methods to reduce waste, decrease production time, and increase yield from raw materials can build a significant cost advantage. A mining company that developed advanced remote-control and automation technologies, for example, improved its cost position materially as its

need for expensive manual labor fell and efficiency increased.

- Industry Leadership.** Industry leadership confers the ability to influence the shape of the cost curve. This is the role that Saudi Arabia is currently playing in the global oil market. The country has increased domestic production, which has put additional near-term downward pressure on global oil prices. These lower prices deter other producers from bringing new volume to market, which could endanger the market's long-term equilibrium.

A producer that successfully combines many of these levers should be able to create a first- or second-quartile cost position for its production portfolio, ensuring profitability.

The current environment, with its glut of capacity in many industries, may offer many producers good opportunities to be countercyclical investors. This holds especially for upstream oil. In the long term, the steepness of the industry's cost curve should protect its profitability; simultaneously, current valuations of assets are discounted compared with their fair intrinsic value (at least according to some expectations regarding the likely evolution of oil prices). Recent M&A activity in the industry illustrates the opportunity for compa-

nies to exploit this situation and potentially create significant long-term value.⁴

Arbitrageur. An arbitrageur extracts its value from market imperfections. We describe this value as “extrinsic” because it is related not to the classical producer margin (the “intrinsic” value) but rather to price signal discrepancies. (See Exhibit 2.)

Arbitrageurs do not necessarily own production assets—and, if they do own them, it is typically as a means of acquiring information about imperfections and exploiting pricing inefficiencies rather than earning a producer's intrinsic margin. Makers of generic pharmaceuticals, for instance, do not necessarily produce all the molecules of the drugs they package and market. (In some cases, though, they might consider doing so if it enabled them to be more reactive to market opportunities, such as sudden outbreaks of disease, or if it allowed them to take fuller advantage of short-term pricing spikes.)

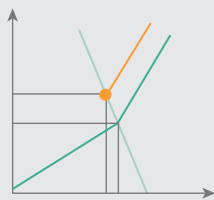
In fact, what makes an arbitrageur's business model unique is not its production footprint but rather its operating model. The key characteristics of that model are the following:

- Agility.** Market imperfections are short-lived; arbitrageurs must be agile in order to exploit them. If a producer

EXHIBIT 2 | Premium, Intrinsic, and Extrinsic Value

MARKETS THAT ARE NOT COMMODITIZED

PREMIUM VALUE

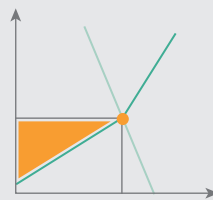


- A price premium that exceeds the company's related costs
- Often created by strong brands or an oligopolistic market structure

Source: BCG analysis.

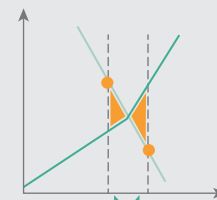
MARKETS THAT ARE COMMODITIZED

INTRINSIC VALUE



- The difference between the product's market price and the company's cost of production

EXTRINSIC VALUE



- The potential value created by market imperfections, such as those arising from information asymmetries or lack of market transparency

can reoptimize its value chain on a quarterly basis, an arbitrageur must be able to make decisions in hours, or even minutes and seconds, if it wants to take advantage of observed pricing inconsistencies.

- **An Emphasis on Delegation and Empowerment.** To be agile and able to make decisions with sufficient speed, operators (including suppliers, sellers, logistics and value chain optimizers, and production schedulers) must have the freedom to make decisions without approval from upper management.
- **A Simple Performance Metric: P&L.** To ensure that actions taken by operators increase value for the company, the main KPI used is the global profit generated by all activities, as measured by the profit-and-loss statement.⁵ One oil company, for example, created P&Ls for individual teams, preempting political discussions among the teams about the logic of emphasizing particular functional KPIs, such as operating cost or production losses.
- **Tight Control over Operations and Strong Risk Management Capabilities.** Delegation and empowerment have a price. Companies need to ensure that operators do not misuse the freedom they have been given. An independent control function, complemented by strong risk management capabilities, must be in place to ensure that operators stay inside the parameters they have been assigned.
- **A Superior Understanding of the Market.** The ability to detect genuine market imperfections and gauge their potential evolution is crucial for arbitrageurs. Gaining this ability requires access to timely market information from the company's production and marketing functions. It can also be fostered by robust information-gathering and fundamental-analysis processes. The goal is to know the market better and to seize opportunities more quickly than competitors.

- **A Strong Market Footprint.** To detect and take advantage of market imperfections, arbitrageurs need a large, diverse footprint in the product market in the form of production assets or contractual commitments that give them access to products. Arbitrageurs also must be able to move and store products economically and have logistics positions that allow them to access end consumers cheaply. The more diverse the network of positions, the easier it will be to arbitrage the market. Acquiring or building such a network can be costly, however, so arbitrageurs usually choose to create a virtual portfolio of assets through long-term contracts.⁶ This arrangement often allows an asset's intrinsic value to remain with the asset's owner while the arbitrageur gets access to the extrinsic value.

The current environment offers arbitrageurs an interesting opportunity to improve their position. Many producers find themselves challenged in their core business because their margins have fallen substantially. In response, they have opted to refocus their efforts on first- or second-quartile cost assets and sell marginal or logistics assets, such as storage facilities or subscale refineries—many of which have the potential to deliver considerable value to arbitrageurs. We have seen large oil producers, for example, selling refining and logistics assets to oil merchant-traders that are focused on extrinsic value.⁷

A subset of the arbitrageur model is what we call “platform” business models. Companies like Amazon and Sotheby's are able to control the market platform itself, either digitally or physically. This allows them not just to extract extrinsic value from the market through superior market information but also to monetize value as monopoly platform holders. (Discussion of the necessary market dynamics and requirements for companies that would deploy such models is beyond the scope of this article.)

Producer-Arbitrageur. For companies in an industry with a steep cost curve and structural market imperfections—crude oil

is an example—a producer-arbitrageur model should prove compelling. In most cases, however, producers do not opt to expand into arbitrageur-type models. Many of these businesses are unaware of the potential value at hand—an EBITDA margin of as much as 5%, depending on the sector and situation—which can be captured with minimal capital investment and limited risk. Many producers with good profitability are also reluctant to increase the complexity of their business model in an effort to gain access to their industry’s extrinsic value. They are typically hesitant to dedicate management attention to this pursuit and are afraid of derailing a business model that they understand well and that is extracting significant intrinsic value from the industry.

These concerns are legitimate. The operating models, cultures, and skill sets required of producers and arbitrageurs are quite different. Nevertheless, a number of businesses, including several oil companies, utilities, and pharmaceutical companies, have successfully blended the two models and are reaping substantial rewards.⁸ Best practices of such companies include the following:

- **Physical Separation of the Entities Responsible for Production and Arbitrage Trading.** The respective cultures and incentive systems are likely different; mixing them could create tension while diluting the capabilities needed to win in both areas.
- **A Clear Interface Between the Two Functions.** Maintaining this interface will promote a high degree of responsiveness to market opportunities while ensuring clarity in the decision-making process. This is critical—there should be no question about who has the lead when different types of arbitrage opportunities emerge.
- **Responsibility for the Steering of Production in the Hands of the Commercial Function.** This will enable the firm to manage assets optimally against a volatile market.

- **Transparency in Value Creation Along the Value Chain.** Optimization decisions often affect both the commercial and production parts of the value chain. If different parts of the chain employ different metrics (for example, production efficiency versus margin), it will be difficult to evaluate tradeoffs at the speed required to leverage market imperfections.
- **Use of Ex-Post Results to Gauge the Performance of Teams and Individuals.** The intrinsic and extrinsic value that can be extracted from assets and market positions can vary considerably depending on market movements. Sometimes achieving budget figures will be easy; other times, impossible. It is therefore important to measure performance against real-time market potential.

COMMODITIZATION IS INEVITABLE for most businesses and is happening with increasing speed. But it is ultimately survivable and potentially advantageous, provided a company recognizes and understands the challenge it faces and responds strategically, quickly, and with rigor.

Leaders facing commoditization pressures in their industry should ask themselves the following questions in order to become a beneficiary of commoditization rather than a victim:

- How is commoditization changing the basis of competitive advantage in my industry?
- Which of the strategies discussed above are the most viable for my company?
- What changes do I need to make to my business model, and what capabilities do I need to develop, to ensure my company’s success?

NOTES
1. Further down the energy industry’s value chain, differentiation based on cost has become more difficult. In refining, for example, it has become challenging to be a pure producer. Refining

processing units are manufactured and operate at similar costs; this makes it challenging for complex refineries to significantly differentiate themselves on cost. Such refineries can, however, differentiate themselves by successfully leveraging regional market imbalances.

2. In the case of a disease outbreak, for example, the distributor of a generic medicine with the right supply rights will benefit from tight supply. As time goes by, other producers of generics will start to produce the molecules, and the abnormal profit linked to the original market imbalance will disappear.

3. Recently, we have seen several companies, including a number of Chinese state-owned enterprises, overdeploying or misallocating capital.

4. This strategy could, however, backfire if it turns out that the oil industry is not merely experiencing a cyclical adjustment but rather undergoing a profound shift in its nature. And such a shift may indeed be occurring. There is a plausible argument that fracking, new technologies such as horizontal

drilling, and the discovery of new shale oil reserves will profoundly reshape and flatten the oil industry's cost curve. If this happens, the classical producer response might be counterproductive for oil industry players.

5. Sometimes these companies might use a risk-weighted P&L.

6. An arbitrageur may opt to acquire assets if it becomes difficult to control them without ownership. In that case, the arbitrageur will be looking to acquire assets whose costs are in the third or fourth quartile in order to avoid paying a large premium for the assets' intrinsic value: the main purpose of the acquisition is gaining access to the assets' *extrinsic* value.

7. Vitol, Trafigura, and Gunvor acquired refining, logistics, and distribution assets from some of the largest oil players between 2010 and 2013, a period when intrinsic refinery margins were low.

8. Examples of oil companies include BP, Shell, and Total; examples of utilities include EDF, Engie, and Statkraft.

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