Chapter 11
Global Trading of Commodities

This case study involves a Swiss parent company (FP), and subsidiaries in the United Kingdom (UKS), China (CHS), the United States (USS) and Canada (CAS).\(^1\) Collectively, FP, UKS, CHS, USS and CAS engage in the global trading of natural gas, aluminum and alumina (primarily physicals and secondarily derivatives). These markets are representative of commodities trading in general, and have many features in common with trading in financial products as well.

We analyze this case under both (a) the formulary approach described in Notice 94–40 and the proposed global dealing regulations, and (b) the simplified profit split method. The summary of key facts, below, is lengthy, because it contains a description of individual commodities markets and an overview of the trading function. Those readers familiar with these contextual details are advised to skip Section 11.1.

11.1 Summary of Key Facts

We begin this segment with a discussion of the markets for natural gas, alumina and aluminum. Following this description, we identify the core assets and skills used in physicals trading, and consider how and why these key elements have shifted in relative importance over the past 3–5 years.

11.1.1 Description of Natural Gas Markets

Natural gas is consumed by cogeneration plants (to produce energy), industrial companies (to power production equipment), commercial end-users (to heat offices, schools, hotels, etc.), and individual consumers. Gas is extracted from natural reservoirs through a “wellhead,” a mechanism that controls the flow of gas to the surface, and is transported along a pipeline system from supplying regions to consuming

\(^1\) Portions of this chapter originally appeared in the *Tax Director’s Guide to International Transfer Pricing*, and are being reprinted here with permission of the publisher, Global Business Information Strategies, Inc.
regions throughout the United States and other countries. The pipeline system consists of small-diameter pipelines, or gathering systems, feeder pipelines, large-diameter pipelines for long-distance transport, storage facilities along the system, and receipt or delivery points. Mineral rights and the wellhead and pipeline systems are generally owned, and natural gas is produced, by separate and independent companies.

Natural gas producers generally contract directly on a long-term, firm basis with large end-users and intermediaries (e.g., utilities). However, an individual utility or other long-term customer may require more or less natural gas than it has directly contracted for, or a producer may have committed to deliver more or less natural gas than it has available at a point in time. Analogously, pipeline operators generally contract directly on a long-term, firm basis with large end-users for most of their capacity. However, the amount of capacity leased out on a long-term basis is somewhat less than total capacity, to allow for peak usage. Long-term users, for their part, want the flexibility to lease out their temporarily excess capacity, or obtain additional capacity on a short-term basis, which their long-term leases with the pipeline owners do not provide.

Natural gas traders take positions and trade in natural gas and pipeline capacity. More fundamentally, they provide an outlet for producers’ excess production and assume their market risk, constitute a source of incremental supply to end-users, and take advantage of arbitrage opportunities (or “basis differentials”) across markets and over time. Moreover, traders buy and use or resell the incremental capacity that pipeline companies do not lease out on a long-term, firm basis. They obtain such capacity through leases with the latter, and with end-users, on daily, weekly or monthly bases. Traders typically obtain “interruptible” service, which is less costly than firm service. However, as the term implies, such service is not guaranteed. Rather, one can be displaced by a firm user, and trading strategies must allow for this eventuality through “park and loan” arrangements (permitting traders to draw on pools of natural gas located near their customers).

Traders hedge their physical positions by entering into offsetting positions in the same or a related commodity, thereby mitigating the resulting price exposure and eliminating the open position in whole or in part. Some hedges are done on exchanges (e.g., standardized, tradable futures entitling the buyer to claim physical...

---

2 In principle, hedges are entered into as an offset to underlying physical trades. However, the latter may not materialize (due to non-performance of one kind or another) or they may be significantly delayed (due, for example, to production or shipping problems). When the physical trade is delayed, the hedge itself becomes an open position and carries with it substantial risk. Moreover, futures markets are much more volatile than physicals markets. While one clearly bears a measure of price risk on open positions in physicals, in that the price of a particular commodity is quite likely to fluctuate over time, the potential for backwardation on hedges (where the commodities price in the future is lower than the current price), coupled with the potential for non-performance or delayed performance in the physicals market, poses substantially greater risks. While outright non-performance has historically been relatively uncommon, in part because few contracts are fixed to the day, delays in production and/or shipping, unacceptable variations in quality or volume, and other similarly smaller-scale adverse developments are relatively common.