



Preventing the Perfect Storm: How to Reform the Institutional Architecture of Global Energy Supply

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FACET Commentary No. 010 – May 2008

A look at the latest news on global energy trends suggests a perfect storm: during the next 25 years, oil will remain the central component of the global energy mix, covering around one third of primary energy demand. Gas consumption will strongly increase, rising to an estimated 23 percent by 2030. At the same time, new consumers, notably China, have entered the scene and demand their share in global supply; state players have come to dominate global energy markets, flanked by a renewed tendency to lock up reserves; actual investment in exploration and production is running critically below estimated needs; and a looming climate change has triggered hectic efforts to enlarge the share of bioenergy in total fuel consumption, eventually creating yet understudied negative side effects.

Yet, in energy, things are as they are in any other market: actors respond to incentives and constraints imposed by the way the market is governed; hence, it is the rules of the game that provide for one outcome or the other. In other words, while energy issues tend to trigger power politics reflexes among governments, analysts and observers, above mentioned trends first and foremost require answers in terms of regulation and institutional design. So what do we need to do, to ensure sufficient energy supply in hydrocarbons and the right incentives when it comes to substituting them? In essence, it is four things.

A four-point program for the supply and substitution of hydrocarbon energy

First, the consumer-consumer cooperation has to be fostered, aiming at integrating the newcomers in the structures of the International Energy Agency (IEA). The rise of China and India represents a fundamental shift in the 'traditional' consumer base of global oil. Yet, given that both countries (as other emerging economies) are no members of the IEA, they are not part of the institutional framework that covers short-term supply management mechanisms such as the International Energy Program (IEP). Hence, in case of short-term supply disruptions – occurring for whatever reason – major consumer nations will perceivably not be able to coordinate their policies, which will render IEA's buffer mechanisms ineffective. The resulting oil price shock entails severe

economic implications for import-dependent countries, at least endangering their growth path; moreover, it will hit developing nations most, due to the high energy intensity of their economies. Accommodating the new consumer heavy weights in the IEA structure is thus imperative not only for reasons of ‘market power’ among the major consumers’ front, but also to prevent negative side effects on weaker nations.

Second, the producer-consumer cooperation has to be strengthened, in order to render markets more transparent, and to enhance planning security of market actors. In recent years, futures, options and other derivatives have opened the oil market to large scale speculations. Notoriously scarce information on production levels of key producer states, combined with increasingly tight spare capacities, provide fertile grounds for strong price volatility beyond actual demand and supply situations. The International Energy Forum (IEF) in Ryad, today the only place that allows for mutual exchange between producers and consumers, must become more prominent and play an important role in providing for more information on energy market developments and policies. Especially the IEF’s Joint Oil Data Initiative (JODI) is a central instrument to render the oil market more transparent. Both components of the IEF have to be fostered and strengthened.

Necessary trade and investment reforms

Third, the framework for trade and investment in oil and gas has to be revised. The recent waves of nationalizing upstream assets and restricting access of private actors have led to critical underinvestment in exploration and production, which run far below the IEA’s estimated investment needs of 10 trillion USD for the upcoming 25 years. At the same time, existing trade agreements in the framework of GATT/WTO are designed to grant market access, not to address export restrictions and investment protection, the most crucial challenges when it comes to addressing deficits in oil and gas upstream capacities. Given the present sellers market, it may of course prove difficult to change the rules and establish a ‘level playing field’ in energy investments for both the producers’ national oil companies and their private Western competitors. However, it would be worth trying to convince producing nations that an institutional environment favoring an effective allocation of capital and investment is more likely to generate stable and reliable revenues, compared to a situation in which price hikes result from inelastic supply and an overstretch in oil and gas infrastructure.

Fourth, and finally, substitutes to hydrocarbons, notably biofuels, have to be addressed appropriately in existing regulations of international trade. At the same time, it is imperative that a strongly increasing production in biofuels does neither exert negative

environmental side effects nor run counter to developmental goals. Yet, within the WTO, any changes in the great producer blocks' protectionist agricultural policies are not only linked to subsidy cuts in their respective competitor markets, but also to a liberalization in developing countries' remaining barriers to trade in services and investment. Moreover, instruments ensuring sustainable production, such as certification of biofuels and feedstocks, still are largely at odds with WTO regulations. A solution would be to deal with bioenergy in the WTO framework outside the traditional agricultural policy sphere. Lowering trade tariffs and quotas, and fostering international classification and certification, would favor a commercialization of environmentally sustainable and cost-competitive bioenergy technologies, and at the same time allow for new opportunities for developing nations.

In all, and true, these measures will not solve the world's energy problems. But they adapt the institutional architecture of global energy in a way that at least allows to prevent the looming perfect storm – and to effectively cope with the remaining challenges ahead.

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