Power Exchanges: Key component of a liquid wholesale market

According to Paul Dawson, Head of Environmental and Regulatory Affairs, Citigroup, the fact that exchanges provide a standardised product, observable price benchmarks and reduced counter party credit exposure will ensure their continued success.

Setting the scene

DG Competition's sectoral enquiry, the third liberalisation package and ERGEG's regional initiatives are once again stimulating significant discussion around the essential building blocks required to establish an integrated, liquid competitive EU electricity market.

In parallel, the launch of Belpex, the merger of Powernext and EEX and the planned development of a day-ahead exchange in the UK means that it is a good time to reflect on the contribution that power exchanges will make to development of the single electricity market and to consider those problems that they will help to solve, those that we cannot expect them to solve and, indeed, those that they ought not to play a role in solving.

Power exchanges' role as a key component of a liquid market

Most power exchanges originated as auction-based spot markets reflecting market participants' need to optimise day-ahead scheduling decisions in the delivery of a non-storable commodity over an integrated transmission network. However, as competition in power markets evolves, power exchanges have increasingly fulfilled the more traditional role of exchanges in providing standardised, freely tradable forward contracts, in alleviating bilateral credit constraints through clearing and in providing transparent forward reference prices and indices. To the extent that the third liberalisation package and associated anti-trust actions deliver greater competition in EU power markets, power exchanges will inevitably play an ever increasing and more prominent role in their future development.

You cannot make a silk purse from a sow's ear

While exchanges will be an incredibly important – almost necessary – component of evolving power markets, we should nevertheless resist the temptation to expect them to solve all of the underlying structural problems with competition, regulation and co-ordination between markets. If a lack of competition or the underlying market structure leaves market participants with no risk, no need or no ability to trade, then even the best designed exchange can do nothing to remedy this.

Even Belpex's achievement in providing a platform for co-ordinated congestion management across three national borders cannot address the failure of the respective regulators and system operators to maximise the transmission capacity made available across its boundaries.

Similarly, although Nordpool offers 46 contracts for difference against zonal price differences they are rarely traded and highly illiquid because the only natural seller of transmission hedges – the Nordic system operators – have no interest or incentive in participating in the market to hedge their own (long) exposure to transmission congestion.

Boundaries on exchange involvement

In most markets, exchanges compete with bilateral and over-the-counter markets to meet market participants' trading, credit-risk and collateral management requirements with their success driven by the trade-off made by participants between the exchange fees and margining costs and the benefits of anonymous access to a low-risk pool of liquidity. By contrast, many power markets have originated more by a process of design than competitive evolution to accommodate two "natural monopoly" functions inherent in all electricity markets, namely:

- "system balancing" – the need to co-ordinate physical deliveries to balance real-time supply and demand and to respect the delivery capabilities of the transmission network
- "imbalance settlement" – the need for centralised calculation and settlement of the imbalances between market participants' contracted and metered deliveries.

As competition and regional co-operation develops, it becomes increasingly necessary to retain a bright line distinction between those functions that exchanges provide on a competitive, non-exclusive basis (e.g. day-ahead trading, forward trading, clearing etc) and those which are being provided as part of the essential balancing and settlement infrastructure (e.g. system balancing, congestion management, auctioning and registration of transmission rights etc). This is not always straightforward, but is essential to ensure that the quest for liberalisation does not inadvertently create de facto monopolies in the provision of trading platforms and credit-risk management.

Where do we go from here?

Faced with the likely success of exchanges in helping to deliver the vision of the single EU electricity market, it is tempting for some stakeholders to take one step further and to argue that regulators should intervene to "encourage" or mandate further trading on exchanges. This reflects a serious confusion between the desired outcome of a competitive, liquid and transparent market with the means for its creation.

The need to trade stems from the need to manage the underlying commercial risks faced in competing to generate and supply electricity. Listing a product on an exchange is no guarantee that it actually trades if no-one has an incentive to do so (as the Nordpool experience with contracts for difference demonstrates). Moreover, in any market with effective competition it would be folly to restrict market participant's choices on how and where they execute their trades (whether bilaterally, over-the counter or on exchange). If you can take a horse to water, but you can't make it drink, then maybe the horse just hasn't competed hard enough to work up a thirst; if it has, then maybe it just doesn't like your choice of water; in neither case will you make much progress trying to force the issue.

The benefits of exchanges in providing a standardised product, observable price benchmarks and reduced counterparty credit exposure will ensure their continued success as prominent and central stakeholders in competitive EU power markets. As the market evolves, exchanges will become larger and more prominent as greater market integration and the increased commercial drive to rationalise collateral across multiple platforms results in fewer, larger, broader exchanges. However, as we continue on the path of liberalisation, we need to remember the necessary limits on their involvement and that the ultimate key to vibrant exchanges with transparent, reliable price indicators is a vibrant, transparent effectively competitive market to generate, supply and trade electricity.