On interactions between energy markets

By Vladimir Feygin

There are still some disagreements regarding whether energy markets are already fully integrated; most opinion differences are for such regional markets as gas markets. The main point for those who are skeptical is that prices on these markets are not fully correlated as they should be in theory, with price differentials to be equal to marginal transportation costs.

That's true but it is highly probable that major deficiencies in this regard as between East Asia gas markets and EU gas market will be significantly lessen in coming years – we already see more LNG cargos moving from the Middle East (mostly Qatar) to Asia than to Europe (which incentives price increase at the EU trading platforms) and first attempts to organize gas trading in East Asia (which directly or indirectly will force some downturn pricing trend at those markets).

Though prices are not perfectly correlated (and I doubt they will correlate in the foreseeable future) but price relations between markets are becoming very intense. In many cases these are price/volume relations. We marked this above regarding Asia and EU gas markets. We've seen an influence of low USA gas prices to EU gas prices indirectly – through reallocation of the US coal from US power sector to EU power stations,

We can foresee potential appearance of a number of such correlations and influences especially where flexible markets easily reacting to supply/demand balance are involved.

As we know overproduction of the shale gas in the USA had led to a sharp fall in gas prices which made most of the dry gas extraction nonprofitable. As a result producers shifted their efforts to wet gas production because byproducts (NGLs) were priced mostly on oil linkage and therefore were much higher than for dry gas. NGLs are very important in North America for petrochemical production as they are more efficient feedstock than naphtha traditionally widely used in Europe. But soon after the above shift NGLs (and first of all – ethane) became overproduced as well comparing to available chemical capacities. So their prices moved down – and this resulted in less drilling activity for total gas production Now we see an increase of dry gas prices – up to 4$/Mln.BTU from 2$/Mln.BTU.

It is yet unclear what reverse impact it will have on the rate of gas utilization in the USA power sector.

On the other hand, most part of NGLs (i.e. LPG and gas condensate) is well transportable and so we can foresee that an excessive volume of these products may start moving from the USA to Europe or other destinations seeking for higher prices. This may lead to dump in US gas prices etc.

These quick and sharp price tendencies' changes are not helping for sustainable energy business because gas and gas components as well as their substitutes are a part of technological and products chains and any transformation of these chains may be substantiated only if they are used for significant time interval when economic correlations are maintained in a similar way.

We know that in the US low gas prices and an excess of NGLs produced have already became a driver for significant shift in industry behavior based on use of cheap hydrocarbons as a feedstock. We do not expect that current rise in gas prices will damage this process but an uncertainty is obvious.

Another very popular subject is a future appearance of USA/Canada gas at export markets. Basic calculations show that, because of costs for liquefaction, transportation, regasification etc. this gas will be available at EU and/or Asia markets at prices not very much different from let say 10-11$/Mln. BTU. In such a case a critical issue is again market capacity as if these volumes will be absorbed by the growing markets (and – globally gas markets capacity will definitely grow) then US gas export may mostly assist a process of "equilisation" of regional gas prices but not destroying markets.

Looking more broadly we can foresee that increasing NGLs production and lowering prices for NGLs may influence global oil pricing in the downturn direction. The oil production will be more and more linked with use of oil in the transportation sector and less in petrochemicals – so its future will depend on shifts in this sector where gas – jointly with electricity – will be again a competitor to oil products. Petrochemicals will be more directly linked to NGLs use.

This is in good correlation to current vision that global oil production will barely increase – while global liquids production will grow on behalf of NGLs. But NGLs volumes may be less manageable than currently oil production is and therefore prices for NGLs may more easily go down.

So we may expect a sort of global process of interdependence between sectorial and regional use of corresponding hydrocarbons (both basic ones and as process products) in volumes and prices. The danger is a potential uncertainty in this process which may damage investments.

We can expect that new forms of influencing these processes from regulatory side will be used in order to avoid these negative impacts. Some sort of such signals we already watch in the US which let WTI price to be kept for so long and so much below Brent index though in perfect markets it is difficult to substantiate this difference.

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