

Comments on Form IV submitted by the Parties to the Dow-DuPont Merger Submitted by CUTS International to CCI

Preliminary comments

The Form IV submitted by the parties to the proposed combination (Dow-DuPont) does not give wholesome picture of the shape of things to come, which could influence the reference point for merger review/competition analysis by the Competition Commission of India. Their submission, which uses some ‘static’ market data, fails to capture the ‘dynamism’ of the market, particularly when viewed in the frame of global agriculture/food value chain.

Shape of things to come

Not only the agriculture input market is consolidating, there is a growing trend of vertical integration (including strategic collaboration, cooperation and shareholdings) in both up-stream and down-stream of the agriculture/food value chain. In addition, with the use of information and communication technology (ICT) and data analytics, the structural dimension of the market is moving towards building super-platforms for one-stop solutions.

The market trend is not, therefore, mere consolidation, but is characterised by expansion across the value chain and/or across geographical boundaries. Bundling of crop protection agro-chemicals with genetically engineered and hybrid seeds, strategic use of IP rights, expansion of adjacent markets etc. are all part of the ‘game’ that the Commission must keep in mind while reviewing the proposed combination.

In other words, competition analyses should not only look into “what is, in the relevant market”, but also “what is the likely shape of things to come”. Failing to do so can give rise to, in near future, types of competition concerns that would be very difficult to deal with, which in turn could have adverse socio-economic effects.

Reduction in Agro-biodiversity

It is well accepted fact that the maintenance and continuation of agro-biodiversity is the key for sustainable agriculture and food security. India is a bio-diverse country, and is centre of origin for many crops. The consolidation and integration in the global seed industry is leading and would further lead to reduction of agro-diversity due to decreasing varieties of seed supply. Apart from raising food security and sustainability concerns, this decrease/loss in seed diversity would also decrease consumers' choice and loss of opportunities to those agriculturists who could have earned more due to the varietal distinction (including geographical indication) from their farm produces.

Cumulative effect of other mega mergers

The proposed combination of Dow-DuPont need to be reviewed in light of the cumulative effect that it could have along with other announced global Mergers & Acquisitions (M&As) in the agriculture input/seed market, namely: (1) Bayer-Monsanto, (2) ChemChina-Syngenta and (3) PotashCorp-Agrium (reportedly they are also planning to enter seeds and crop chemicals market). The review process should include an analysis of projected market structure that would emerge after all these M&As have been approved. An article, written by CUTS Secretary General, Pradeep S Mehta, is relevant here and can be accessed at <https://goo.gl/NrXxM3>.

According to one estimate, if approved, just three corporations would control about 60 percent of the global patented seed market and 64 percent of the agrochemical market. Further, it is also reported that: (1) the 10 biggest pesticide firms now control 90 percent of the global pesticide market; (2) that 10 companies control 76 percent of the animal pharmaceutical sales; and (3) that 10 animal feed companies control 52 percent of the global animal market.

The assessment as to whether a merger would give rise to appreciable adverse effect on competition (AAEC) is, generally, based on a counterfactual analysis where the post-merger scenario is compared to a hypothetical scenario absent the merger in question. Thus the Commission may like to take into account future changes to the market that can "reasonably be foreseen".

Public interest in competition analysis

Given the nature of the product (seeds) involved, there is a growing acceptance for competition law enforcement to take into account public interest aspect (e.g. food security, biodiversity sustainability, farmers' welfare etc.) into key analyses. For a country such as India, which is rich in agro-biodiversity and has a very large population dependent on agriculture for sustenance, the case for such 'inclusive' competition analysis becomes an imperative.

It is particularly vital viewing that Indian farmers are in distress. One of the reasons for such stress is that their profit/income is being squeezed between agriculture input providers and commodity buyers – both marred by diminishing competition.

In this context, the following excerpt from a recent research study¹ is self-explanatory and contains useful insights:

“Global seed producers (Monsanto, Syngenta DuPont, Pioneer, BASF, etc.) continue to increase their global presence in the “seed chain” and have recently acquired critical market influence in key food exporting regions. Combined with the natural complexity of global food production-supply chains, any disruption in seeds supply may cause a systemic food shock of a global magnitude. There have also been some significant changes at the upstream level of the food value supply chain which reinforce the power these global seed players exercise over a significant part of the global food value chain.

First, these players develop intellectual property rights (IPRs) strategies, providing them a reward for the significant value they add to the chain through R&D, but also in order to reinforce their dominance towards farmers, capturing the significant part of the value added along the whole food pipeline. Agriculture has become increasingly technology driven (biotech, crop protection, microbial solutions, big data and analytics software). In the current value chain context, to remain competitive and to stay in business, farmers have to adapt the latest technologies from the

¹ <https://www.ucl.ac.uk/cles/research-paper-series/index/edit/research-papers/cles-2-2016>

global factors providers, who use intellectual property protection or Big Data as a bargaining tool in their relations with farmers. This makes farmers critically dependent on global agriculture technology providers and may lead to the development of bottlenecks. Farmers' labour is increasingly commoditized causing social tensions, in particular in emergent economies and the developing world. Competition law is seen in some quarters as a possible response to this increasing power of global seed platforms.

Second, the development of new technologies has led to the emergence of a diverse group of players: crop protection and seed companies, equipment companies, fertilizer companies, retail distributors, and pure-play digital start-ups. These seek to develop an "integrated offering of equipment and services for farmers," enabling them to "gradually build a compelling one-stop solution that will allow them to compete for the lion's share of the market". Consequently, these companies develop strategies in order to develop new capabilities and exploit different sources of revenue by "applying new technology or by expanding across the value chain or geographically". This is achieved by significant merger and acquisition (M&A) activity, leading to higher levels of concentration on several markets. Market players therefore have made the choice of positioning themselves as fully integrated providers, or the orchestrators of a network, or partners of an established network, which may lead to the development of bottlenecks in the food supply chain affecting consumers and other market actors, such as farmers."

Some relevant information/data²

- Pioneer Hi-Bred International was acquired by DuPont in 1999. Since, 1999, it has acquired around 11 firms, nine of which were seed producers and two were software companies (i.e. Farm Technology, LLC, which provides internet-based procurement application and Map Shots, Inc., which is active in precision agriculture software sales).

² ibid

- In 2008 DuPont launched the PROaccess platform which enables the company to sell its seeds to more growers through a network of distributors via special distribution agreements. Over the period 2008-2011, Pioneer acquired many of its partners of PROaccess platform including AgVenture, Hoegemeyer Hybrids, NuTech Seed, Seed Consultants, Terral Seed (all deal announced in 2010), and Doebler's Pennsylvania Hybrids (2011). No transaction data was disclosed on any of DuPont's deals.
- In 2014 the company sold pesticides business assets to its rivals such as Bayer, Sumimoto Chemicals, Mitsui, S&W Seed, and Syngenta. Over the last 5 years Pioneer continued to sell pesticides and chemical assets while acquiring mostly seeds companies.
- According to a recent study of Jefferson et al (2015), DuPont (together with its affiliates) is a global leader in plant-related IP rights portfolio (i.e., in utility patents for maize, rice and soybean plants), far exceeding the rest of the US industry, which includes small biotech companies, governmental research institutes, and universities, followed by Monsanto and other industry players.
- The rapid consolidation of the seed industry led to global dominance by a few companies, with Monsanto, Syngenta and DuPont being the most powerful of them. As a result, the four firm concentration ratio (CR4) in the crop seeds sector has reached 54 percent according to a recent US National Academy of Sciences Report. The latest estimates suggest that "the Big Six" (Monsanto, Syngenta, DuPont, BASF, Bayer, Dow) collectively control more than 75 percent of the global agrochemical market, 63 percent of the commercial seed market, and almost three quarters of R&D expenses in the seeds and pesticides sector.
- Apart from consolidation in the seed industry, high concentration in the food industry is not unusual. According to Hoppe and Banker, 80 to 90 percent of US food production is produced by 10 to 20 percent of farmers. According to the Economic Research Service (ERS), 12 percent of plants with more than 100 employees ship 77 percent of all value of food in the US food manufacturing industry.

- Vertical integration is a key trend in many food chain subsectors when key players transform themselves through a series of strategic moves to diversify their business. A notable example is the US poultry industry which experienced vertical integration trends where few integrators (companies that own feeding, hatching, and processing poultry) have market power over poultry growers.

Comments on merits

Without prejudice to what has been discussed above, the following are CUTS International's submission on the Form IV:

1. It is claimed in the Para 8 of the Form IV, that since the Parties' activities are highly complementary, therefore the proposed transaction does not give rise to a significant increment in any of these business areas. *It is proposed that the Commission may like to review this statement in light of the preliminary comments given above.*
2. It is wrong to claim in Para 9 of the Form IV that the Proposed Transaction does not cause an appreciable adverse effect on competition (AAEC) in any of the overlapping business areas of the merging entities. *It is submitted that the Proposed Transaction should go through in-depth review in light of the preliminary comments made above.*
3. It is wrong and denied what has been claimed in Para 10 of the Form IV. *It needs to be verified* whether market for agrochemical in India is highly competitive and hence the Proposed Transaction would not result in any AAEC. Similarly, the data given under (a) to (c) in Para 10 and further claims made on the same in subsequent paras (11 to 25), could be wrong and *the same need to be thoroughly investigated.*
4. It is wrong and denied that the activities of the Parties with respect to seeds overlap only in relation to the sale of corn seeds in India. *The same*

needs to be verified by the Commission. Similarly, the data/ information provided in Para 26 and further claims made on the same in subsequent paras (27 to 35), may need to be reviewed and verified.

5. The following submissions³ are crucial to be considered, as far as “**nature and extent of innovation**” and analysis presented in Paras 22 and 30 of the Form IV. The effect of the merger on innovation can be assessed, among others, on three parameters, viz. (i) vertically integrated platforms, (ii) current R&D pipelines, and (iii) incentive to innovate.

(i) Vertical integrated platforms

- The ‘platforms’ resulting from the enhanced vertical integration resulting from these mergers (this as well as other above-said mega-mergers announced) are likely to be used for the purpose of creating exclusive packages of traits, seeds, and agrichemicals that are less like to interoperate with rival products. This could raise entry barriers for smaller innovators and reduce or cut off access to resources needed to compete effectively. Further, this may stifle disruptive innovation if, in the absence of the merger, firms were able to enter one or two segments of the market (e.g. research and breeding) without the need to offer an “integrated” platform product.
- It may be noted that although traditional breeding methods required important resources and a considerable investment of time (because of long breeding cycles) and thus provided large economies of scale leading to the emergence of large market players, the latest genome-editing technologies, particularly CRISPR/Cas, may constitute more efficient and less resource intensive and time-consuming breeding methods, that offer

³ References: (i) Diana Moss, *President, American Antitrust Institute*, <https://truthonthemarket.com/2017/03/31/mergers-innovation-and-agricultural-biotechnology/>; (ii) Ioannis Lianos, *Professor of Global Competition Law and Public Policy, UCL Faculty of Laws and Chief Researcher, HSE-Skolkovo Institute for Law and Development*, <https://truthonthemarket.com/2017/03/31/finding-your-way-in-the-seedsagro-chem-mergers-labyrinth-ag-biotech-symposium/>

opportunities for the emergence of more competitive and less integrated market structures in the traits/seeds segment(s).

(ii) Current R&D pipelines

- It has been reported that in the R&D pipelines for all four firms (Dow, DuPont, Bayer and Monsanto) there are significant amount of overlaps in major area of traits, seeds and crop protection. Thus special investigation is mooted to ascertain that the R&D pipelines compete head-to-head for technology intended for commercialisation in Indian market.
- It is important to maintain multiple, parallel R&D pipelines. Because, on the one hand, competition maximises the potential for numerous collaborations, on the other, it minimises incentives to indulge in anti-competitive activities like refusal of licence or to impose discriminatory restrictions in technology licensing agreements or colluding not to compete.

(iii) Incentives to innovate

- There is likely to be diminished or potential elimination of competition in innovation markets, because of curtailment of innovation efforts below the level that would prevail in the absence of the merger. This is especially the case when the merging firms are each other's close competitors.
- In its recent decision on the *Dow-DuPont* merger, the European Commission found that the merger may have reduced innovation competition for pesticides by looking to the ability and the incentive of the parties to innovate. The Commission emphasised that this analysis was not general but was based on "specific evidence that the merged entity would have lower incentives and a lower ability to innovate than Dow and DuPont separately" and "that the merged entity would have cut back on the amount they spent on developing innovative products". The European

Commission made the following observations, which is worth noting:

“Only five companies (BASF, Bayer, Syngenta and the merging parties) are globally active throughout the entire R&D process, from discovery of new active ingredients (molecules producing the desired biological effect), their development, testing and regulatory registration, to the manufacture and sale of final formulated products through national distribution channels. Other competitors have no or more limited R&D capabilities (e.g. as regards geographic focus or product range). After the merger, only three global integrated players would remain to compete with the merged company, in an industry with very high barriers to entry. The number of players active in specific innovation areas would be even lower than at the overall industry level.”⁴ (Emphasis added)

- In light of the above, it is important to note that these mergers will reduce the innovation poles globally to less than three mega seed/agro-chemical platforms. Is this good for innovation?
 - It may also be noted that EC’s approval of the Dow-DuPont merger was on conditions of “divestment” of DuPont’s global R&D organisations. However, it is being said that if the buyer of such assets would be any of the Big Six, the competition concerns with respect to innovation market would remain.
6. Barriers to entry for agro-chemicals and hi-tech seed industries are high, contrary to what have been claimed in the Form IV.

⁴ http://europa.eu/rapid/press-release_IP-17-772_en.htm

Submission

In light of the above-stated preliminary comments and comments on merit, it is submitted that the Commission should:

- a. Conduct an in-depth review taking into account larger public interest, including food security, biodiversity and sustainability of agriculture in India, as well as farmers' welfare and consumer choices, as discussed above;
- b. Conduct the review keeping in mind the post-merger market structure and "shape of things to come" as discussed above, including assuming all the relevant proposed transactions have been approved (cumulative effect);
- c. Pass any other order(s), that it deems fit in public interest, given the circumstances as illustrated in the above-stated facts and information.

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