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The importance of transnational corporations in the supply of oil to Europe: Implications

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ABSTRACT

This paper analyzes the positioning of European and American transnational oil companies in the supply of oil from outside Europe to European countries. The analysis focuses on the triangular relationship between: the control that these companies exercise over oil refining and the marketing of petroleum products in Europe; the international production of crude by these companies in oil regions; and the import of crude oil by European countries. Two indicators were developed to assess the relevance of these large corporations: (a) the extent of the supply to their European refineries via their own international production, and (b) the contribution of each company to the total crude oil imports received by six European countries.

1. Introduction

Three facts constitute the starting point of this study. First, that most EU countries are highly dependent on imports of crude oil. Production by these countries is minimal, while consumption of petroleum products is high, and nearly all domestic demand is consequently supplied by European refineries that process imported crude oil[1]. Second, the oil industry has liberalized since the later twentieth century—first in countries with no state-owned oil companies, then in countries where previously state-owned companies had been privatized (France, Italy, and Spain). Thus, both imports and downstream activities (refining and marketing) were essentially put at the mercy of private business decisions. And third, the fact that downstream activities are performed by a few large transnational corporations whose parent companies are American or which belong to European countries.

Based on these three facts, this paper analyzes the position of these transnational oil corporations (TOCs) in the supply of foreign crude oil (from outside Europe) to European countries. More specifically, it defines a triangular relationship between: (*i*) the control that TOCs exert downstream, in Europe; (*ii*) the international production of crude oil in oil-rich regions; and (*iii*) crude oil imports by European countries. The focus of the analysis is the assessment of two indicators: the DSIP, or degree of supply by each TOC to its European refineries with its own international production; and the CIO-6, or contribution to total imports of crude oil by the six European countries under study.

The aim is therefore to assess the relative importance of a method of intra-firm trade in which companies extract crude oil outside Europe to supply their European refineries, in order to manufacture products sold mostly in European markets. If the DSIP and the CIO-6 indicators are high, as the results indeed show, this would have three implications[2] . First, that the control exercised by the TOCs over oil refining and marketing in Europe also extends to imports of crude oil, boosting the companies' vertical integration at the European level. Second, that TOCs also influence European oil purchases, oil being a strategic product for countries. Third, the strong external dependence of European countries becomes a double dependency: on the one hand, in relation to TOC strategies, and on the other with regard to the possibility of accessing resources in countries where oil reserves exist.

The analysis also reveals differences among the major oil companies engaged in this triangular relationship, in terms of their positions in the refining, import, and international production of crude oil, considering that some are "national champions" in their home countries (TOTAL-France; Eni-Italy; Repsol-Spain)

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[1] Of the six countries studied in this work, only Italy has a crude oil production of over 100 thousand barrels per day (2006–2009 annual average). Germany barely reaches 60 thousand barrels, and the Netherlands 40 thousand, while for France, Spain, and Belgium the figures are insignificant. Even in Italy, crude production represents only 6% of its oil consumption (reaching 3.5% in the Netherlands, 3% in Germany, and a very low percentage in the remaining three countries). *Source*: Eurostat (2011).

[2] Another aspect of the relationship between the TOC and European imports is not discussed in this paper due to insufficient availability of information. This concerns the trade between oil companies when TOCs sell foreign crude oil – through various forms of trading – to other TOCs, or to companies that refine in European countries.

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while others are European (Shell, BP) and American firms (ExxonMobil, Chevron, ConocoPhillips).

This study provides a relevant analysis from a theoretical perspective, because the behavior of these TOCs in Europe reveals much about how transnational companies create vertically-integrated production structures that are compatible with the diversified localization of their extractive and processing activities. Moreover, the analysis is relevant from a political and practical standpoint, because countries without their own resources of oil (a strategic product) are vulnerable to their suppliers and to events in regions where oil reserves exist. Therefore, this study draws interesting conclusions, both theoretical and political, on the strategies of transnational companies and their implications for EU oil policy.

This study focuses on the six European countries that are the largest importers of crude oil, together representing about 70% of total purchases by the EU-27. Notably, half of the countries in the sample are national champions (France, Italy, and Spain), while in the other half (Germany, Netherlands, Belgium[3]) downstream activities and imports are controlled by foreign companies.

We thought it appropriate to work with averages for the period 2006–2010 rather than randomly choosing a particular year. Therefore, the analysis uses annual average data from the above-mentioned period, although the evolution of annual variations in the volumes of production, importation, and refining has also been considered, especially since the economic and financial crises is driving the data significantly downward.

Another important aspect to note in this introduction is that our study met with a major obstacle in regard to the availability of information. When we carried out a similar study on the relationship between TOCs and U.S. crude oil imports (Palazuelos, 2010), plenty of statistical information was available through the *Energy Information Administration* of the Department of Energy[4]. Its website allows public access to comprehensive information on the countries of origin of imports, and on importing companies, also offering monthly data on imported quantities by company, port of discharge, etc.

However, in the case of European countries, we faced a radically different situation, not only because there is no online access to data, but because all information relating to these companies' imports is considered "confidential" and access to it is denied. Actions taken to retrieve data from government agencies (Customs, Department of Statistics, Ministry of Foreign Trade, Ministry of Energy) have not yielded any results. The same impasse was reached with direct requests made to the oil companies and their respective refineries. Responses included: "We do not disclose the information you require to the public domain, as we consider it company-sensitive"; "You are asking for confidential data. Sorry not to answer"; and "Information on crude oil imports by individual companies is usually confidential and not in the public domain". Or even more explicitly, in the French case, "*Ces donnés étant collectées exclusivement à des fins statistiques, il nous est en principe interdit de les communiquer par entreprise*".

Obviously, the lack of detailed information has prevented certain aspects of the analysis from reaching exact conclusions. Instead, we have been forced to make some rough estimates based on available information on three items related to the analysis: (*i*) the location and activities of each of the TOC refineries, in each country; (*ii*) crude oil imports by country; and (*iii*) the locations of crude oil extraction outside Europe based on the sources referenced in each section.

Therefore, the position of the TOCs in terms of the crude oil imports to each country is approximate, though quite accurate. There are some doubts about the origin of some specific imports, but these do not undermine the meaning or quality of the analysis. On the contrary, we believe that the analysis as carried out has three strengths. On the one hand, its originality; despite the importance of the topic, no other work has been done on the subject. In fact, literature on TOC strategies is unquestionably scarce. On the other hand, considerable effort was made to find sources of information, to process data, and perform analysis. Finally, the conclusions drawn from this descriptive work make it possible to understand the behavior of the TOC in Europe, while setting a potential research agenda that will increase understanding of the TOC.

This paper consists of four sections that follow this introduction. The second section examines the degree of concentration of oil refining and the marketing of petroleum products in six countries, as well as the key changes in demand and the production structure of oil derivatives. The third second section presents the geographic distribution of crude oil imports by European countries, along with its main characteristics and trends. The fourth section determines the economic significance of the two indicators we have developed: (1) the relationship between TOCs' imports based on their own international production and TOC's supplies of throughputs to their own refineries in Europe (DSIP indicator); and (2) the relationship between those TOCs' imports and total imports of the 6 European Countries (6-EC) that have been studied in this article (CIO-6 indicator). The final section summarizes the conclusions about the degree of TOCs' vertical integration, and the oil policy implications for the European Union.

2. The core business that controls downstream

2.1. Refineries

As a result of the refineries' changing strategies, the plants dedicated to processing crude oil to produce various ranges of derivatives are subject to numerous changes in terms of the properties themselves and their production capacities[5] . However, it is possible to develop a basic table that summarizes the main features of the refineries in the six European countries (6-EC)[6].

The first characteristic that stands out is the limited increase in production capacity since mid-2000. Only Italy has continued to raise its capacity, ultimately reaching 2.3 million barrels per day (hereafter mbd); Germany and France have meanwhile kept capacity at around 2.3 and 2.0 mbd, respectively. In Spain and the Netherlands capacity is at 1.3 and 1.2 mbd, respectively, and at 0.8 mbd in Belgium. Together, the six countries have an overall capacity nearing 10.0 million barrels per day.

[3] According to total import volumes, Sweden is actually the sixth oil importer, ahead of Belgium; but oil only ranks second in Sweden's energy consumption structure, while in Belgium it ranks first (as is also the case for the other five countries). Moreover, the refining companies in Belgium and in the other five countries are also the same.

[4] EIA, *Imports by Country of Origin*, http://tonto.eia.doe.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbl_m.htm.

[5] Among the companies, there is an ongoing process of acquiring and divesting plants, of temporary or definitive closures, redefinitions of alliances and joint ventures, exchanges of assets and the expansion/reduction of capabilities. As an example, in 2010 the following processing plants were for sale: Wilhelmshaven (Conoco-Phillips), Reichstet (Petroplus), Hamburg (Shell), Heide (Shell), Dunkerque (TOTAL), Gonfreville (TOTAL), and many others in Europe, America, and Japan (Hache, 2006; Saniere et al., 2010).

[6] Three main sources of information were used for this section. They are specified in the References section at the end of this paper and include: the companies' Annual Reports (British Petroleum, 2010; ConocoPhillips, 2010; Eni, 2010; ExxonMobil, 2010; Repsol, 2010; Royal Dutch Shell, 2010; TOTAL, 2010), the Annual Reports of the European Petroleum Industry Association (which groups these companies), and comprehensive reports by Purvin & Gertz Inc. (2008, 2009).