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"Oil and its Markets"

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Oil markets are extremely complex, characterized by an interplay of economic, political, technological and ecological issues. The paper begins by pointing to the high ratio between fixed and variable costs as a characteristic of the oil sector in all its production stages. Then the story of the sector is sketched, since the expansion of Rockefeller’s Standard Oil Trust in the late Nineteenth century. Anti-trust intervention and collusion characterize the first part of the story; the notion of “trilateral oligopoly” (oil companies, producing and consuming countries) is then utilized in interpreting the developments since the Second World War. An illustration and a critique of the role played by financial markets in the determination of oil prices is accompanied by a critique of the theories interpreting oil prices as determined by its nature as a scarce natural resource. Recent trends in the oil sector, with the development of shale oil, are briefly considered.

"Forecasting Gasoline Prices in the Presence of Edgeworth Price Cycles"

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Forecasting is a central theme in economics. The ability to forecast prices enables economic agents to make optimal decisions for the present and future. In this article, we investigate if and how gasoline prices can be forecast in retail gasoline markets that are subject to high-frequency, asymmetric price cycles known as Edgeworth price cycles. We examine a series of purchase timing decision rules and a series of feasible forecasting algorithms for updating those rules over time. We find that, in the presence of cycles, agents in our five Australian markets can systematically reduce purchase prices below market average the equivalent of 11 to 15 U.S. cents per gallon, using simple decision rules and feasible forecasting algorithms.
High Frequency Trading is pervasive across all electronic financial markets. As algorithms replace an increasing number of tasks previously performed by humans, cascading effects similar to the Flash Crash of May 6th 2010 become more likely. In this study, we bring together a number of different data analysis tools to improve our understanding of natural gas futures trading activities. We focus on Fourier analysis and cointegration between weather forecasts and natural gas prices. From the Fourier analysis of Natural Gas futures market, we see strong evidences of High Frequency Trading in the market. The Fourier components corresponding to high frequencies (1) are becoming more prominent in the recent years and (2) are much stronger than could be expected from the overall trading records. Additionally, significant amount of trading activities occur in the first second of every minute, which is a telltale sign of the Time-Weighted Average Price (TWAP) execution algorithms. To illustrate the potential for cascading events, we study how weather forecasts drive natural gas prices. After separating the data according to seasons, the temperature forecast is strongly cointegrated with natural gas price. This splitting of data is necessary because in different seasons the natural gas demand depends on temperature through different mechanisms. We are also able to show that the variations in temperature forecasts contribute to a significant percentage of the average daily price fluctuations, which supports the hypothesis that the variations in temperature dominates the volatility of natural gas trading.

Using daily price quotes from about 10,000 French gas stations, this paper empirically analyses whether the level of competition determines the degree of price stickiness on the retail gasoline market. The degree of price rigidity is measured by the frequency of price changes as well as the average duration of uncensored price spells, while the distance to the nearest station and the number of gas stations within a given radius are considered as proxies for local competition. The results confirm that local competition is an important determinant of the price-setting behavior of gas stations. Indeed, for both measures of price stickiness, we find that the degree of price rigidity is positively related to the distance to the nearest station, and negatively related to the concentration of firms in a given geographical area. This result can be notably explained by the fact that gas stations facing a high competitive pressure are more likely to adjust their prices more quickly and more frequently in response to crude oil price decreases than stations enjoying market power.
Regulatory frameworks on logistics regulations are often opaque, especially in developing countries, because of the complex nature of logistics services. World Bank client countries have faced difficulty finding the issues that hinder them from improving logistics competence. Therefore, it is beneficial to understand how the logistics service industry is regulated and what should be addressed in building the regulatory framework to improve logistics competence. This note proposes questions to be addressed for beneficial regulations by reviewing existing logistics service regulations in 14 countries, particularly regulations for the freight forwarding industry. These questions will help in assessing a regulatory framework and identifying regulatory weaknesses. This note suggests that the regulatory framework should take into consideration national recognition of freight forwarding business, an institutional arrangement with clear division of responsibility among stakeholders, and streamlined but flexible regulations adapted to the country context.

"Delegation versus Control in Supply Chain Procurement Under Competition"

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This paper studies the optimal component procurement strategies of two competing OEMs selling substitutable products. The OEMs outsource their production to a common contract manufacturer, who in turn needs an input from a component supplier. Each OEM may either directly procure the input from the component supplier, or delegate the procurement task to the contract manufacturer. We first analyze the OEMs’ procurement game under a non-strategic supplier whose component price is exogenously given. It is found that symmetric equilibria arise for most situations, i.e., both OEMs either control or delegate their component procurement in equilibrium. Interestingly, despite the commonly-held belief that the contract manufacturer would be worse off as OEMs gain component procurement control, we show that the contract manufacturer may enjoy a higher profit. Then we study the OEMs’ procurement game under a strategic supplier who can set its component price. We find that the supplier’s strategic pricing behavior plays a critical role in the equilibrium procurement structure. In particular, in the equilibrium under strategic supplier, the larger OEM always uses delegation while the smaller OEM may use either delegation or control. By identifying the driving forces behind the OEMs’ procurement choices, this research helps explain observed industry practices and offer useful guidelines for firms’ component sourcing decisions.

"Did the New Fix, Fix the Fix?"

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We study the impact and changes to the precious metal fixing structure that took place in 2014 and 2015 for Gold, Silver, Palladium and Platinum. On average, we find that there is negative price pressure going into the fixing auction, for all precious metals Futures, outside active US trading hours regardless of fixing structure. For active US trading hours, there is no obvious, observable persistent price pressures. Price pressure into the AM Fix usually reverses part of the prior gains that have taken place throughout the overnight session.

Price for most metals generally increases between the PM Fix to the AM Fix and the negative price pressure may be due to liquidity effects as the Future price converges to an arbitrage free
price or due to geographic preferences. The overnight market is illiquid for all metals. We find no conclusive signs that the price is manipulated into the fix given the data set, at least not on average. Nor do we find any significant change in the price and volume structure before and after the Fix changes.

Given the higher transparency and more Fix participants we would have expected changes in the structure if it was manipulated before the change in the Fix structure. However, absence of evidence is not evidence of absence but we would need a different data set to conclude that the new Fix fixed the Fix.

The drift we observe during the AM Fix is more likely based on expectations that the spot price established in the auction will be lower than the Future price that seems to have been pushed up outside US trading hours.