

Abstract
Process Economics Program Report 204B
ECONOMICS OF PETROCHEMICALS PRODUCTION IN CHINA
(October 2005)

This report extends SRIC's work on comparative regional economics to include the rapidly growing and increasingly influential petrochemical industry in China. The study is somewhat different from our "normal" PEP report. While the main aim of the study is to provide insights in comparative investment costs in petrochemical projects and the costs of petrochemicals production in China and to relate them to the development in the Chinese petrochemical industry in general, we have also covered the major macro economic indicators of China as well as some policy and strategic issues that we believe are important to foreign investors wishing to invest in the fast growing and rapidly evolving petrochemical industry in China.

There are two main themes in the report: 1) investment climate and regulatory costs in a broad sense and; 2) construction and production costs in China's petrochemical industry.

Investment climate, regulatory issues, government approval and decision transparency in China and their implied costs have been of major concern to foreign investors. With this in mind, in the first part of the report, we assess key macro economic indicators, recent changes and trends in the administration and regulation of the industry, new licensing and approval schemes specific to foreign investment, as well as key challenges in investing and operating in China. This is followed by a brief description of government policies and incentives for foreign investment. The implications of the recent changes and initiatives are discussed with the view to achieve informed investment decision making on site selection for new investment projects in China.

The second theme of the report concentrates on the comparative cost competitiveness of the Chinese petrochemical industry. In this part of the report, we compare investment costs and operating costs for two representative locations (East Coast and a representative location in the Central and Western region) in China with those of the US Gulf Coast. Our primary focus is on the East Coast of China as it has been and will continue to be the main region for foreign investment in China. For comparative perspective in costs of petrochemicals production, we use ethylene and polyethylene as the surrogates and benchmark the costs of production in China against those in the United States, Germany, Saudi Arabia and Japan.

On 21 July 2005, the Chinese government allowed its currency (RMB) to appreciate against the US dollar by 2.1% and stopped the decade-old RMB peg to US dollar. However, it appears that there is still considerable international pressure for the RMB to appreciate further. It is therefore timely to evaluate the potential impact of RMB appreciation on the costs and competitiveness of the Chinese petrochemical industry. Although this is not the main focus of the report, the analyses do provide both useful benchmarks and frameworks for assessing the effects of the Chinese currency revaluation in directional terms, and we evaluate some of those impacts in the report.

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