



## World Petroleum Overview

### World Overview

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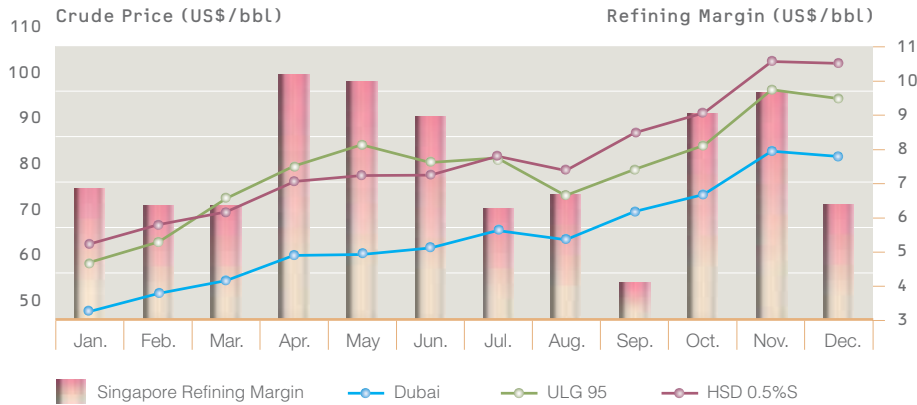
The volatility of the world financial market resulting largely from the subprime problems of the US has caused widespread damage, including a credit crunch, which in turn affected the US financial sector and soon spread to Europe and Asia. Meanwhile, the continually weakening US dollar mobilized capital flow to lower-risk assets and speculation in the global commodity market, causing oil and gold prices, among others, to rise. For the year, the IMF estimated global GDP growth at 4.9%, led by emerging markets and developing countries, whereas the economies of Europe, Japan, and the US in particular slowed down from the previous year.

Due to supply worries, Dubai crude averaged US\$ 68.4/bbl in 2007, up US\$ 6.9/bbl or 11.2% from the previous year. Several factors brought about this situation:

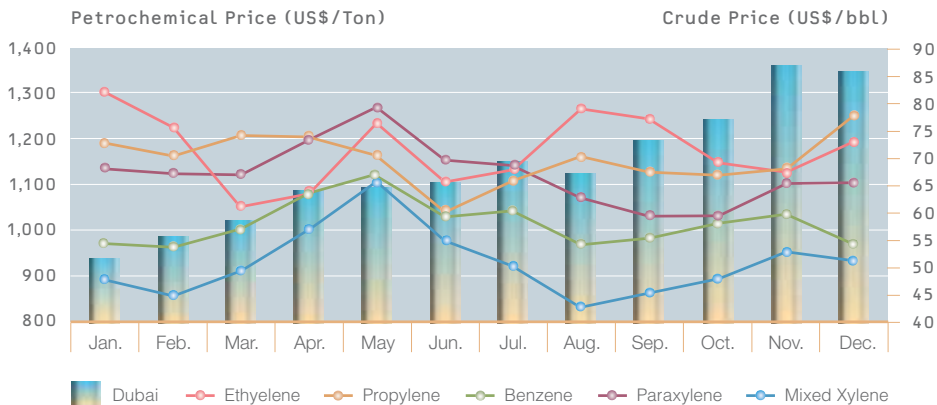
- Dramatic rises in already high production costs
- A shortage of skilled manpower in exploration and production
- Nationalistic sentiment in oil-producing countries contributing to sluggish and inefficient development of resources
- Unrest in oil-exporting countries like Nigeria, Iraq, and Iran
- Sluggish development of alternative energy, which still needed state subsidies.

Meanwhile, global oil consumption kept rising by about 0.8 MMbbl/d due to high demand from the US and emerging economic powers, including China and India – partly because of domestic fuel price subsidies in such countries. The weakening dollar led to speculation, particularly during the last quarter of the year, after the US Federal Reserves had announced interest rate cuts to stimulate the economy – thereby causing the common belief that oil demand would not go down.

### Prices of Dubai Crude, Refined Products, and Gross Refining Margin in 2007



### Prices of Dubai Crude and Petrochemical Products in 2007



World crude distillation capacity expanded by a mere 0.7 MMbbl/d to 87.7 MMbbl/d during the year, causing the refining capacity to be tight and the refined product prices, as well as the gross refining margin, to rise further and fluctuate even more. For the year, the margin (Dubai Cracking Singapore Refinery) averaged US\$ 7.6/bbl. The same applied to petrochemical prices, which topped US\$ 1,000/ton for the second year in a row due to the continuing high demand but little new supply. This unexpected tight supply resulted from rising project costs, manpower shortage, technical problems, and annual maintenance shutdowns.

### Domestic Overview

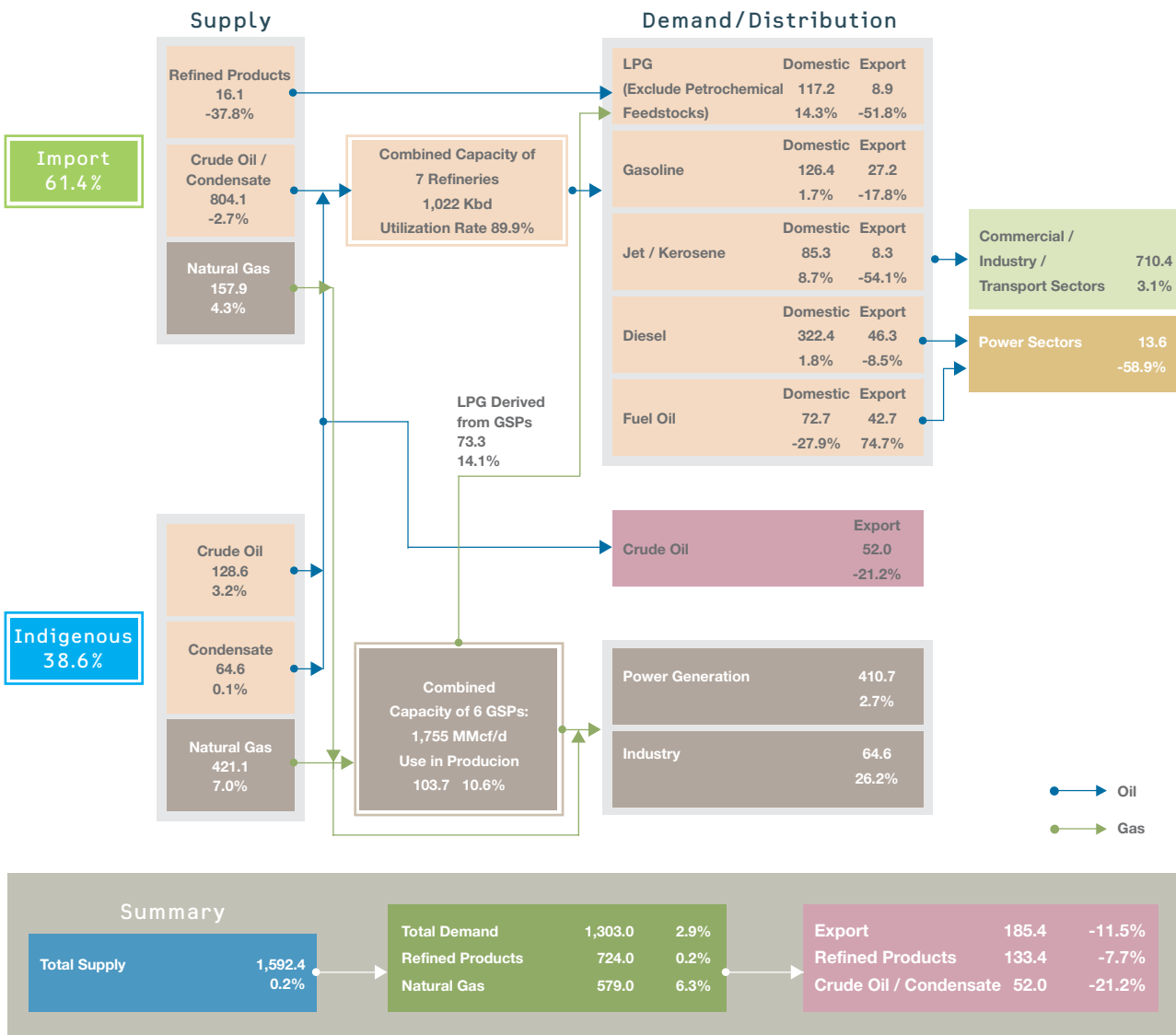
The Thai economy of 2007 was driven mainly by the export sector, which expanded considerably despite the baht appreciation, aided by the disbursement of state expenditure. Meanwhile, consumption and private investment still showed signs of slowing down from the previous year but improved in the latter half of the year, thereby contributing to a 4.8% rise in GDP this year. The annual inflation rate dropped to 2.3% and the baht averaged 34.6 to the dollar – the third most strengthen currency next to the Philippines peso and the Indian rupee.

Petroleum consumption consisted of crude oil and natural gas, amounting to 1,303 Kbd equivalent, a 1.8% rise from the previous year. Natural gas (including NGV) application in the industrial sector topped the growth list at 26.2%, followed by LPG application, at 14.3%, thanks to the government's continued price subsidy. Nevertheless, the government

announced a price float for LPG at year-end to alleviate the burdens of the Oil Fund, under which domestic retail prices of LPG would be gradually rising with ex-refinery world market prices, with a maximum discrepancy of 40%. Meanwhile, fuel oil consumption dropped the most (27.9%) with the completion of the Third Gas Pipeline, which led to greater volumes of

### Thailand's Petroleum Balance in 2007\*

Unit : Kbd



Source: PTIT, EPPO, PTT

Notes: \* The Ministry of Energy decided to postpone the price revision quoted at the refineries in order to ease the public burden from rising cost of living. The Ministry also fixed the LPG price at Baht 18.13/kg. from March to July 2008. Revision on LPG pricing formula will be made after July 2008 in which dual pricing could possibly be adopted between household price and industries / transportation price.



natural gas being substituted for fuel oil in power generation. For the year, total petroleum procurement for use as fuel and petrochemical feedstock from domestic supply and imports amounted to 1,592.4 Kbd equivalent, a 0.2% rise from the previous year, whereas dependence on imports came to 61.4%. Petroleum exports dropped by 11.5% to 185.4 Kbd largely because of the 21.2% drop in crude oil exports while the domestic call for refined products expanded marginally (0.2%), compared with the 2% drop a year before. Domestic consumption of petrochemicals expanded with the economy and exports largely went to China, where demand was substantial.

## Outlook for 2008

According to the IMF, the global economy will be growing by 4.1%, a 0.8% fall from that of 2007. This is largely due to the slowdown in the US economy that could develop into a recession, ignited by the subprime problems and the downgraded real-estate sector there – thereby depressing the US demand, which in turn affects the export sectors and the economic trends of Europe, Japan, and emerging countries. In addition, the volatile high prices of oil and agricultural products, coupled with the rising wages and costs of raw materials, will intensify inflationary pressure, harming global economic expansion. Meanwhile, the dollar seems to continue weakening in line with the US economy. It is expected that the US will maintain its relaxed financial policy following the reduction in policy interest rate of 1.25% to 3% - twice in the month of January 2008 alone. Emerging economies like China and India may be conducting more stringent economic policies to keep their inflation and overheating economies in check. Meanwhile, the weakening US dollar and gaps in interest rates are bound to not only spur speculation, but also intensify the turbulence of the global financial market.

Demand and supply for the year will be more or less in balance at 86.4 MMbbl/d, with a rise in supply of about 1.6 MMbbl/d coming from non-OPEC countries for the most part (around 1 MMbbl/d) and a rise in demand of 0.8 - 1.0 MMbbl/d. Nevertheless, the above-mentioned supply worries, coupled with commodity price speculation amid turbulent financial and capital markets, will combine to keep the price of the volatile Dubai crude at an average of US\$ 75 - 85/bbl. This could be on the low side if the world or US economy (or both) faced an excessive slowdown or fell into a recession, thereby lowering the oil demand. Under this scenario, the refining margin and the prices of refined products would drop. Petrochemical prices, meanwhile, are expected to remain elevated despite the emerging down-cycle of petrochemical prices, supported by delays in new projects in the Middle East and Asia. At any rate, the trough of this cycle is expected in 2010 - 2011.

Working against the expansion of the Thai economy in 2008 are the trend of the global economy and partner countries, the appreciating baht, the elevated oil prices, and the accelerating inflation. On the other hand, the domestic economy is expected to be expanding with its gradual recovery in response to greater public confidence, the conduct of the budget deficit policy for the second year in a row to spur the economy, and the acceleration of infrastructural megaproject investments. These will restore the balance in the dramatic economy and enable it to sustain the volatility caused by external factors, evident in our past heavy dependence on exports. In 2008, the Thai economy is expected to grow by 4.5 - 5.5% while the call for refined products is expected to grow by 0.5 - 1.5%. Natural gas consumption is expected to expand by 10% for use in the transport sector, the power sector in place of fuel oil, and the industrial sector. Finally, the demand for petrochemicals is likely to grow by 6.0 - 7.5% in 2008.