

Production management, security of demand and market stability

by Adrian Lajous

1. The prevalence of spare capacity in the global crude oil market, as well as the willingness and ability to make effective use of the flexibility it provides, have been key instruments of supply management and a central feature of the current oil price regime. Historically, excess capacity was highly concentrated in a small group of Gulf oil producers led by Saudi Arabia. The existence of this core group of countries provided the needed leadership and the possibility of enforcing collective decisions at critical junctures, when production discipline was essential. Distributing the burden of unused capacity among OPEC members was never a simple task. The evolving quota mechanism faced complex allocation and compliance issues. Only the risk of lower prices and, ultimately, the fear of a price collapse proved to be compelling restraints. Supply coordination with other key exporters was focused on crisis management. At other times, even when their support was mostly symbolic, informal consultation proved useful. In recent years OPEC has formally revealed its price preferences by establishing a price range target linked to a semi-automatic volumetric adjustment mechanism. This has been effective as a signalling device for a number of years. Previously, implicit price targets were informally discussed when setting total quota levels. However, volumetric adjustment proved to be a powerful if rather blunt instrument in a market characterized by low demand elasticities and chronic excess supply.

2. OPEC's efforts to stabilize prices at a reasonable level were not always successful. After the oil shocks of the 1970s there were two major price collapses, one in 1986 and the other in 1998. Significant price increases were associated with two Gulf wars and with the economic boom of the year 2000. However, it is difficult to appraise the stabilizing effect of direct market intervention by OPEC, given the large fluctuations in oil demand and other contingent factors. The response of OPEC in terms of the size

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and timing of volumetric supply adjustments, and their announcement effects, have been the focus of attention in spite of the awareness that demand for oil is a derived demand, driven by global economic activity. Recessions, disappointing economic growth, inflation and lower productivity have been attributed regularly to oil price increases although the supporting evidence is contentious. These are now matters for economic history that should offer producers important lessons to guide them in asking the right questions with respect to present circumstances and to the future of the oil industry.

Capacity constraints and imbalances

3. The international oil industry has entered a period of fundamental change. The tightness of physical markets is symptomatic of complex imbalances that anticipate further restructuring. Spare upstream capacity is at one of its lowest recorded levels; the world refining industry operated at exceptionally high utilization levels this summer; supply infrastructure is strained; and, in some regions, commercial stocks are still relatively low and the global inventory cover of demand is at its lowest level in more than 20 years. The aggregate effect of these factors on crude and product markets is reflected in recent price behaviour. The long logistical chain of this truly global industry has lost for now the flexibility it needs to assure reliable supplies. A second Gulf war and multiple geopolitical tensions have heightened the sense of supply vulnerability to political events. The

markets for other fuels have also been affected by the surge in demand and low short-term elasticities of supply.

4. The compounding effect of upstream and refining capacity constraints, combined with a changing crude oil mix and new sulphur restrictions on automotive fuels, have resulted in an exceptional widening of light/heavy, sweet/sour price differentials. The Maya heavy crude to WTI spread has reached its highest level ever, sending a strong market signal. The secular decline in the quality of crude processed by US refineries has recently accelerated as sweet US Gulf and North Sea light crudes decline; heavy crude imports from Mexico, Canada and Venezuela have increased; and marginal OPEC barrels are sour and heavier. Although US gasoline imports have significantly increased, it is not clear that additional imports can meet sulphur standards in a timely manner. Investments in desulphurization units and in conversion capacity are lagging expected demand growth. Refinery utilization in the USA reached a peak of 97 percent this summer and

has remained high in the third quarter in order to build inventories for winter distillate demand. Crude throughputs remain high on both sides of the Atlantic and Asian refineries are hard pressed to meet soaring East and South Asian demand. Investment in refineries must now prepare for the growth of extra heavy and unconventional crude supply in order to meet gasoline and distillate demand.

5. Accurate capacity assessments become more important as markets tighten. The IEA estimates that total spare capacity in July was only 1.2 mb/d and effectively available spare capacity was less than half of that volume. The EIA's July appraisal places spare capacity in a range of 0.5 to 1.0 mb/d. The only country deemed to have any spare capacity is Saudi Arabia and the extent of the range is determined by the estimated delay in achieving the higher production level considered. The upper limit of these estimates is a very small number when compared to a global oil demand of nearly 82 mb/d. It should also be noted that low spare capacity levels have prevailed for some time. Since February of 2003 IEA estimates have been below 2.0 mb/d. These levels must be compared with an effective spare capacity of more than 7 mb/d in the first half of 2002. Although there are some indications that OPEC capacity will be increasing later this year and in 2005 and 2006, there are no firm estimates of net capacity expansion. Forecasted capacity growth by other oil exporters should also be handled prudently. Even if these estimates are taken at face value it is clear that the international oil industry will be truly tested this winter. Demand is expected to increase in the 4th quarter of this year and the 1st of 2005 by about 2.5-3.0 mb/d above the current summer volumes. Refiners are busily building inventory in order to cope with peak winter demand. Even with a certain amount of short-term price induced demand destruction it will be difficult to manage any significant supply disruption.

6. A strong dose of scepticism is well justified when dealing with capacity figures. The quality of data is not reliable, there are significant definitional problems and in many instances primary sources are patently biased. Distinctions between surge, sustainable and effective capacities are not rigorous. The timing conditionality of potential supply increases is necessarily imprecise. Capacity increases are not usually expressed in net terms. It must be remembered that capacity in extractive industries is a more elusive concept than in manufacturing and that operationally any loss of constrained output cannot be made up in the short term. Given the unreliable nature of capacity estimates,

forecasting capacity increments is even more perilous and estimating future OPEC spare capacity is unsound, as it is also contingent on capacity increases outside of OPEC and global demand trajectories. Capacity expansion when not based on specific mature projects tends to reflect aspirations more than feasible growth. For the balance of 2004, and in the next couple of years, capacity increases will mainly come from advanced projects with precise milestones and start-up dates.

7. Signals of supply rigidity abound. Imbalances of an unprecedented scale have been building up on key industry dimensions. Record oil and natural gas prices, strong price volatility, high and fluctuating refinery margins, widening quality differentials and high transport tariffs all point in the same direction. Bottlenecks are also appearing in other interconnected energy markets, particularly in the USA, where a structural natural gas deficit has developed and benchmark coal prices have doubled since 2003. More important, markets are signalling that these imbalances are not limited, short-term phenomena. The time structure of crude prices has dramatically changed. In the futures market the back end of the price curve has shifted to a greater extent than prices for prompt deliveries. The market is clearly pointing to the need for greater investment. Producers must recognize these new circumstances and quickly come to terms with them. In characterizing the oil market and defining their own strategies it is imperative that they make a swift transition from the logic of chronic over-supply to one of short-, and possibly mid-term, scarcity. Priorities will have to be reset. Investment in crude oil capacity expansion is now of vital concern and coordinating investment strategies, however loosely, acquires overall precedence for exporting countries.

Market conditions

8. Global economic growth has subjected the oil market to an unexpected demand shock that has practically eliminated spare capacity. The rate of growth of demand has been systematically underestimated while non-OPEC production growth was consistently overestimated. In 2003 and 2004 oil demand is expected to increase by more than 4 mb/d, the strongest demand growth in the last 25 years. In this two-year period, one third of incremental demand will have originated in China and the balance of up to half of the world's growth can be attributed to the USA. They have been the pacesetters in the present cycle. China's extraordinary economic growth, and the even more spectacular oil demand increase, was difficult to foresee and current growth rates in the range of 12-14

percent will prove difficult to sustain. However, in the coming years oil demand expansion will be located outside the OECD and will tend to concentrate in large emerging economies with a low per capita consumption of oil products. On the supply side, non-OPEC production outside the FSU has stagnated. Production increases in selected countries have only managed to compensate for declining production in other countries and mature regions where depletion rates are accelerating. A much greater investment effort will have to be deployed by expanding producers in order to materially reconstitute the effects of rising decline rates in mature oil provinces. The displacement of the geographic locus of supply and demand, and the resulting change in the direction of trade, should trigger deep structural change in the oil industry.

9. Systematic underinvestment characterized the oil industry in the 1990s. In the upstream and the downstream, in international and national oil companies and in other parts of the energy sector, short-term prospects and market signals prevailed over longer-term perspectives and emerging trends. The consequences of this shortsightedness first appeared in the boom of the year 2000, but were concealed by the ensuing recession. More recently a global synchronic economic recovery and rapid oil demand expansion have revealed multiple imbalances. After the first Gulf war, the world had ample excess capacity and global demand for oil grew at a modest pace. Sufficient spare capacity was maintained and, after 1988, Russian output recovery added flexibility to global supply. However, low refining margins and environmental investment requirements and regulations militated against expansion. In some regions excess refining capacity was created, but in the US Gulf Coast the refining industry relied on a gradual capacity creep and the expansion of deep conversion capacity. Institutional, fiscal and financial constraints limited upstream investments in many resource rich countries, while the international oil industry was subjected to rigorous financial discipline that assumed relatively low full cycle pricing and had limited access to low cost oil resources. The proof of past underinvestment is the capacity constraints that prevail today.

10. Fundamental market conditions were ripe for the recent price flare-up. The low level of spare capacity magnified geopolitical concerns. Military intervention and internal political strife in a major Gulf country intensified tensions and deepened regional instability. In other areas political conflict put supply in jeopardy. Records were being set on many fronts: demand growth rates, global demand levels, US oil imports and OPEC-

10 production, among others. Under these circumstances it would have been surprising if prices did not adjust forcefully, particularly in a market prone to dramatic fluctuations. On August 19 the September light crude oil contract in the New York futures exchange closed at 48.70 dollars per barrel. The following day, the OPEC basket increased to 43.16 dollars a barrel. Both of these prices are the highest on record. The last eight trading days of August saw a significant price correction, reducing prices by 13 percent. It is difficult to know if this adjustment consolidates prices before the 50-dollar threshold is again tested or if prices will settle for a time in the mid 30s, for example. It should be noted that longer-term prices remain at very high levels: the 3-year forward average on the NYMEX was 37.70 dollars at the end of August.

11. It is too early to portray the recent oil price increase as an oil shock. Both magnitudes and duration define it, as well as its potential consequences. These in turn are determined by prevailing economic and energy market conditions and by policy response. Also, it is very different if the price rise is the result of a supply disruption, especially if it is politically motivated, or of an increase in demand that is difficult to meet at full capacity. At 42 dollars a barrel, the WTI level is close to 40 percent above the 2000 to date average. This increment is significantly more modest than those registered in the 1970s and relatively smaller than the one after the invasion of Kuwait. Of course, the sustainability of recent prices is still an open question. To qualify as a shock, high prices need to prevail for a period of about two quarters; otherwise they are better typified as a price spike. When the current level of prices is expressed in real terms it is almost 50 percent lower than the one that prevailed in 1981. Now we face the possibility that a sustained 45 to 50 dollar price range could trigger an oil shock that would dampen US economic recovery, precipitate a more rapid depreciation of the dollar and affect global economic health. There is little that oil exporters can do to contain prices. In the short term they will be determined by the strength of demand. The impact of sustained high oil prices will depend on the effectiveness of macroeconomic policies implemented by industrial countries. These policies, in conjunction with strategies designed to promote investment in new production capacity, will influence the future path of prices.

12. The impact of the current rise in prices on global economic conditions and prospects will be tempered by at least six factors. The energy intensity of industrial economies has been significantly reduced in the last 25 years and the share of oil in the

global energy matrix has dropped due to a more efficient use of fuels and by concentrating oil products in the transport sector. Indirect taxation increased dramatically in OECD member countries, except for those in North America. These taxes will protect consumers by absorbing, to a great extent, the shock of higher prices. The depreciation of the dollar with respect to other major currencies has partially shielded some countries from dollar denominated oil price increases. The emergence of freer crude oil and oil product prices and the concomitant development of market institutions should make the adjustment to higher prices more fluid. Effective use of strategic stocks in industrial countries will provide important protection to severe supply disruptions that could drive prices to very high levels. Finally, it is hoped that fiscal and monetary authorities have learned from previous shocks and are now better prepared to cope with the macroeconomic imbalances that they generate. Timely policy response and coordination can reduce the impact of higher prices. Unfortunately, less developed countries are in a much weaker position to deal with higher energy prices. Thought should be given to possible mechanisms and facilities to help them deal with rapid price increases and their longer-term consequences.

13. Before the recent price flare-up, influential economic forecasts had foreseen a weakening of the global rate of economic growth. More recently the first signs of a premature softening have appeared. The US second quarter economic growth rate was recently revised downward. In Japan economic growth in the second quarter was lower than expected and the Euro area grew at only 0.5 percent. The recent slowdown in China's spectacular industrial expansion does not yet offer sufficient evidence of a possible smooth landing this year or in 2005. US financial markets have reacted strongly to expectations of interest rate adjustments, oil price increases and the overall tone of what appears to be a jobless recovery. Growing concern is expressed with respect to the unprecedented magnitude of current account and fiscal deficits, as well as to the levels of household debt and asset supported consumer behaviour. These imbalances make the US economy vulnerable to external shocks. Uncertainty with respect to the outcome of the invasion of Iraq and the impact of the war on the US electoral process appear to be affecting the investment climate. Oil price fluctuations could trigger a further economic slowdown. They could also provide an expedient political explanation for poor economic

performance. Blame could easily be shifted from endogenous factors to Middle East oil producers. It would not be the first time.

Energy security

14. Energy security has again become a key global security issue. In the industrial countries a sense of vulnerability to oil supplies from the Gulf has grown, particularly after the events of September 11, and recent price increases have accentuated this. The perception of wide spread multiple geopolitical risks; instability associated with military intervention in Iraq and its consequences; deeply felt frustrations produced by the intensification of hostilities and the abandonment of the peace process in the Middle East; outrageous terrorist actions and ongoing threats; and, finally, the growing awareness of supply rigidities have all contributed to this predicament. It has been additionally fuelled by the rhetorical excesses of the US presidential campaign and the political recourse to fear. One of the candidates has explicitly stated that the US economy and national security are threatened by dependence on Middle East oil, that the US should not rely on the Saudi Royal family and that it should be finally and forever independent of Mid-east oil. The realism of these objectives and their economic rationality are, to say the least, highly questionable.

15. Last June Lee Raymond, Exxon's Chairman, lucidly forewarned us of resurging calls for US energy independence as if it were a real option. The notion that energy security can be improved by reducing import dependence on oil and gas from the Middle East is unrealistic and misguided. Policies that accelerate a premature transition from oil and gas to other sources of energy can be costly and require sustained subsidies. Respected forecasting exercises, as well as the exploration of carefully constructed and insightful global scenarios, point to the increasing centrality of Gulf supplies in the coming years. Their share of worldwide petroleum trade will increase from 37 percent in 2001 to more than 50 percent in 2025, according to the reference case of the most recent International Energy Outlook, published by the US Energy Information Administration. These shares simply reflect the high concentration of oil reserves and resources in a region, characterized by the lowest production costs in the world. Security of oil supplies is global by nature. It can be enhanced by an overall diversification of supply. However,

it must be stressed that a policy of simply redirecting flows may benefit one country at the expense of others, including its main allies. The reduction of oil dependence by artificially stimulating the demand of other energy sources or promoting high cost energy efficiency measures implies a double loss: a country forgoes the benefits of international trade and incurs additional real costs. Further global and local loss is assumed when oil is substituted by more polluting fuels or less secure fuel cycles.

16. When addressing issues of energy security, supply disruptions have been the main focus of interest and concern in importing countries. However, from the perspective of producers, demand security also merits attention, particularly in the present juncture. Investment by resource holders in the expansion of upstream capacity, and in maintaining spare capacity, requires sustained demand growth. The risks assumed by producers are significant given cyclical growth patterns and policies that dampen the demand for oil and favour other sources of energy. In this context, initiatives to reduce dependence on Middle East oil are a source of additional demand risk. By pursuing security of supply objectives what they actually affect is the security of demand in this key region. The unintended consequences are lower investment rates that eventually restrict supply growth and flexibility. In a certain sense these strategies become self-fulfilling prophecies. They explain in part the reticence to invest by core Gulf producers who have assumed the costly burden of maintaining spare capacity. Throughout the 1980s and 90s strategic producers were obliged to hold significant spare capacity which was subject to wide variations. As residual producers its magnitude reached levels that were not needed to assure supply. With very few exceptions, required and desired spare capacity levels were much lower.

17. Major resource holders have also voiced their concern regarding longer-term security of demand issues. They assume that oil and gas will continue to be the predominant source of energy for some time to come and perceive them as the preferred low cost option and the most versatile. The mid-term impact of alternative sources is seen as limited and their economic viability far away. However, the attention given in the popular press and in public discourse to alternative sources point to a more imminent success in substituting oil and gas, as well as to the possibility of fundamental technological discontinuities. Irrespective of their realism, these views tend to prescribe different incentives –taxes, grants, and implicit subsidies- to accelerate the adoption of

the new sources. Both environmental and security of supply arguments underlie these proposals. What oil producers object to is a premature transition to new sources of energy driven by security considerations. For them the future trajectories of oil and gas demand will not only determine the development pattern of their resources but also the path that they will follow in their own transition to a more diversified economic structure. However, it is difficult to translate the notion of demand security to concrete policy initiatives. Unlike the highly concentrated supply of oil, decisions relating to demand are dispersed and demand patterns are influenced only indirectly by government policies that also pursue other objectives. In this sense supply and demand security are asymmetrical.

Investment behaviour

18. While the international oil industry must urgently expand its upstream capacity, cash-rich balance sheets are proving to be a source of embarrassment in a world where capacity is constrained. Paradoxically, the extraordinary results obtained by the industry –particularly by the super-majors- have not been reflected in their capital budgets. Relatively high crude oil prices since late 1999, and strong refining margins more recently, have produced record results. Oil company indebtedness is at historically low levels and free cash flow is being returned to shareholders by means of increased dividends and active share repurchase programs. Capital expenditures in the upstream have grown modestly in the last five years. Cash flows have allowed some significant acquisitions and more seem to be ahead. The super-majors have allocated important resources to capital-intensive, large integrated LNG projects and their commitment to the liquefied gas chain will absorb significant additional capital. Organic upstream capacity expansion continues to suffer from the growing disconnection between longer-term market prices and prices at which international oil companies are testing exploration and development projects. The prudent rise in pricing assumptions by the super-majors simply reflects average nominal market prices of the last twenty years. A 21-dollar Brent test price is very close to the realized average. Under these conditions, greater effort should be focused on gaining a deeper understanding of the relationship between futures prices, project evaluation assumptions and the implicit oil price in equity valuations as they have a critical impact on investment decisions.

19. International oil companies are finding reserve replacement and production growth challenging. Finding and development costs have increased, as new discoveries

tend to be smaller and are being made in more complex structures. Not only is capital intensity rising, but the knowledge and engineering intensity of asset rejuvenation is also increasing. Investment requirements in the upstream have grown in order to meet incremental demand and, even more important, to compensate for rapid decline in maturing regions and basins. The magnitude of the effort should not be underestimated, as gross capacity expansion is a multiple of the net new capacity that is required. The under-investment that has characterized the 1990s and the first years of this decade stems in part from the strongly and widely held view that the industry is prone to surplus and the corresponding belief that full-cycle prices would remain relatively low. This resulted in a corporate culture that privileged cost-reduction and short-term stock market performance. Under-investment in refining, particularly in the USA, can be partially explained by environmental policies and regulations that Balkanized the gasoline market and hindered efforts to modernize refining facilities.

20. A rapid supply response to higher prices should not be expected. Russian production will continue to increase vigorously over the next three years, but growth will most likely take place at declining rates. Transport bottlenecks in pipelines and sea-lanes must be relaxed with timely investment. Rapid production increases are only sustainable in a limited number of non-OPEC countries. Capacity increases are foreseen in West Africa –Angola and Chad- and in Brazil. Other expansion opportunities do not materially affect global supply. The mobilization of additional investment in OPEC member countries will not be immediate. In most parts of the world drilling rates do not track prices, as they have tended to do in North America. Deepwater and other challenging projects in new frontier regions are costly and take substantial time to mature. Institutional constraints delay decisions and hamper their implementation. Remote operations where infrastructure is lacking are no easy task. Demographic trends in the industry, particularly in the USA, could pose complex problems in a widespread and rapid global expansion. Given recurrent head-count cuts over the last twenty years there is a growing tide of retirements in the oil industry that might limit its capacity to manage large-scale international projects. A survey of SPE members reveals that the average age of geo-scientists is close to 50. The premature aging of the industry and, with very few exceptions, a significant reduction of R&D expenditures by oil companies, are sources of increasing concern. They can be turned into opportunities by the internationalization of

US companies that could tap the pool of local talent in the producing areas and by a further strengthening of the service industry. However, in spite of these obstacles capacity and production will expand. The problem is one of timing.

21. The investment behaviour of national oil companies has followed multiple patterns. All of them benefited from higher prices. However, almost all of them have transferred an increasing share of their expanding revenues to their respective governments. In developing countries with rapidly growing populations governments are hard pressed to finance much-needed physical and social infrastructure. Some also spend significant amounts on security and defence and continue to indulge in conspicuous patterns of superfluous consumption. Under these conditions relations between governments and the management of national oil companies can easily be strained. Their awareness of the need to invest in large-scale upstream projects has not been symmetrical nor their sensitivity to conflicting economic and political objectives. These tensions are being resolved, as policy makers better understand that national oil companies are not allocating sufficient resources to expand capacity. They have also become more conscious of the responsibility that national oil companies have in assuring an adequate long term supply of crude, given that they hold over 60 percent of the world's oil reserves. Under-investment by strategic producers in the Gulf has also been the result of a lack of understanding by international oil companies and by policy makers with respect to the limitations imposed by their dependence on oil and the logic of their long-term commercial objectives. This has limited the role that they might play in the development of vast resources. International oil companies will have to show greater flexibility with respect to their forms of engagement with national oil companies, recognizing their specificity. To gain access to these resources they must be prepared to accept terms and conditions that accommodate the requirements of strategic producers. What is at stake is a new wave of large-scale exploration and development projects. The issue of access is limited to a few important countries and also refers to the desire for freer access in terms of prevailing conventional business models. International companies are keen to explore and develop the oil resources held by Saudi Arabia, Kuwait and Mexico; they look forward to a major stake in the future development of Iraq; and are not comfortable with the existing arrangements in Iran. Other OPEC member countries have

welcomed their presence and are in the process of calibrating the terms and conditions of broader international participation.

Producers' agenda

22. Robert Mabro has once again asked the right question: who should carry the burden of maintaining surplus capacity in the amount that would ensure the smooth operation of the world oil industry? He remains sceptical about the possibility that national and private international companies are ready to share its costs. Answers to his question are not simple and must be disaggregated into three sets of issues. First, the investment sequence must be reverted. Over the last 25 years the global allocation of investment favoured higher cost, higher risk options over more attractive ones located in OPEC member countries. Low cost producers held the system's spare capacity. New price and cost structures should now privilege investment by strategic producers in the Gulf. The key is to maintain prices that discourage the development of undesired excess capacity. Second, contractual arrangements between international oil companies and major resource holders, supported by appropriate regulation, must contemplate the control of production by producing countries. Imaginative financial engineering can help align incentives and limit risks. Third, new forms of cooperation and interaction among producers must be put in place. Coordination of investment decisions – a more complex task- is needed. This will require much more sophisticated strategic behaviour by the main players in order to manage investment cycles.

23. OPEC will now have to redefine its basic agenda, develop new mechanisms of collective action and adopt new patterns of leadership. It must first discard issues that have lost relevance under current conditions. They only distract attention from new and complex challenges. One example is the quota mechanism. It was a useful if imperfect instrument for allocating production under conditions of excess supply. As the OPEC 10 have increased production to their highest historical level, and all member countries are producing at capacity or close to it, other more pressing and critical issues have to be addressed by this Organization. In July the Gulf countries collectively produced a volume of crude that was 10 percent above their quota. Other members like Algeria are producing more than 50 percent above quota, Libya almost 30 percent and Nigeria is committed to very ambitious offshore production targets. Concerns about quotas respond to a culture, attitudes and agendas formed over a period of more than 20 years in which surplus

production was dominant. A formal temporary suspension of the quota mechanism might be appropriate. It can be readopted in an unforeseen market contingency. In any case it will have to be renegotiated given the fundamental change in circumstances and differing investment opportunities and strategies of member countries. The price band mechanism will also have to be revised, both conceptually and in terms of price levels that have lost their relevance.

24. Saudi Arabia has provided effective leadership in OPEC. The size and quality of its reserves and resources, the magnitude of its production and exports and the strategic value of its spare capacity have given the country a privileged position that has been used wisely. In the industry it is perceived as a reliable long-term supplier of oil. The Kingdom has fully replaced production, keeping reserves at a constant level. It has maintained production capacity by fully compensating field decline rates. Saudi Aramco's share in the US crude oil market has shown a remarkable constancy, making this company the single most important source of US imports. Saudi Arabia has adjusted production levels in its consistent search for price stability and reasonable full-cycle prices, compensating for major shortfalls from other countries. At times it has reluctantly released additional volumes in order to re-establish market discipline among OPEC member countries and to signal to other major exporters the need to moderate their rate of expansion. Recently it has increased production to 9.5 mb/d and has committed its remaining capacity to fulfil its customers' requirements, hoping that these actions will help moderate prices. Saudi Arabia has announced that it will increase capacity for the first time in 20 years, and has launched a number of projects that will support this expansion. Equally important is the decision to implement this on its own, through its national oil company. As an oil producer it cannot lose control of output nor relinquish its commitment to maintain spare capacity. It must now convince other core producers to follow its lead without relinquishing these two strategic prerogatives. To maintain its leadership Saudi Arabia must cope effectively with internal and external political pressure. Regional instability poses serious threats and domestic reform must carefully advance at a pace that fosters stability. A growing awareness of the Kingdom's vulnerabilities should drive needed changes.

25. The global oil industry is possibly at a turning point. However, given the dismal failure to collectively identify other inflexion points in the past prudence must prevail for

a reasonable period. Uncertainty with regards to the fundamental conditions of supply and demand, and to their prospects, calls for cautious vigilance. The economies of major consuming and exporting countries are highly vulnerable to domestic and international imbalances. Under these conditions new forms of interaction and cooperation are required among producing countries and with consumers. Important steps have been taken in what will be a long and difficult journey. Every effort should be made to promote and maintain meaningful dialogues like the ones that have been taking place here in Vienna.

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