

پروشگاه علوم انسانی و مطالعات فرهنگی  
رتال جامع علوم انسانی

process of implementing the restructurings and delivering cost savings.

The forces that created the need for restructurings have not disappeared and will continue to affect the industry. The industry has become and will continue to be increasingly deregulated, open competitive.

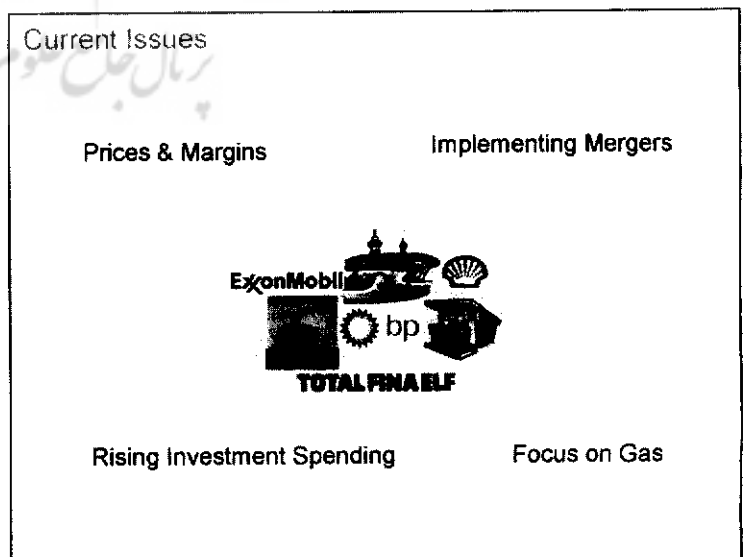
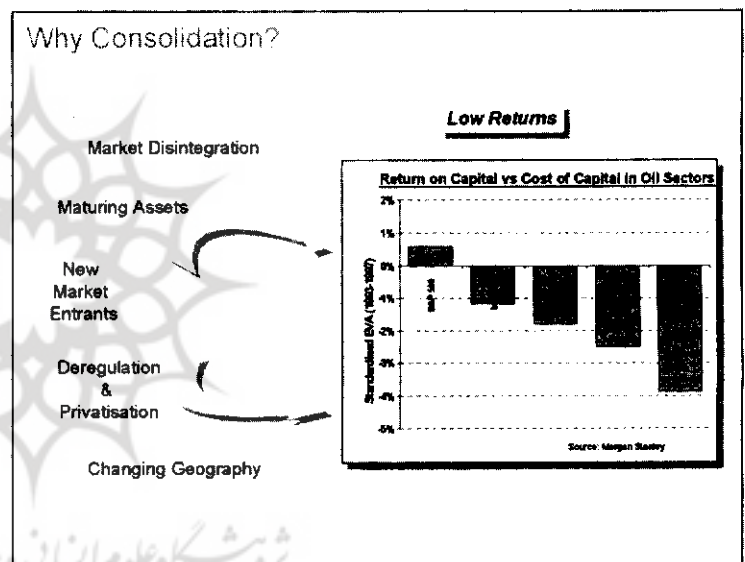
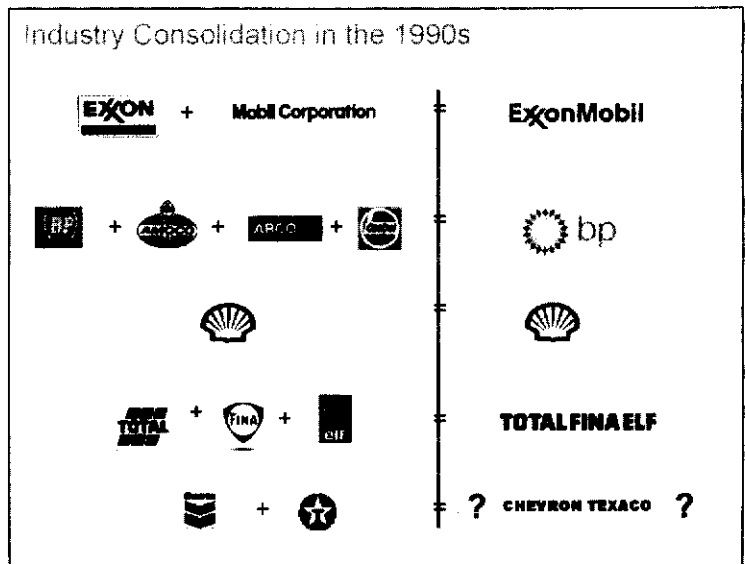
The future of the industry will be moulded by its responses to pressures from a number of areas: from financial and petroleum markets; from wider forces that have begun to affect all international companies in a globalised world; and from competitive pressures from within the industry. The most successful companies will be those that best meet all these complex challenges. Further industrial change must be expected.

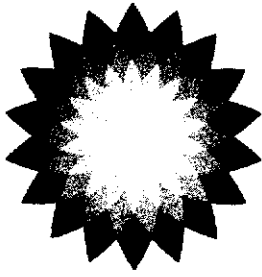
1. for the purpose of this paper the international petroleum industry is defined to include the large private international companies who explore for, produce, process and market oil and gas. In many cases such companies also produce petrochemicals.

2. Exxon, Shell, BP, Mobil, Chevron, Texaco and Gulf.

3. For a fuller analysis see "Bigger Fish in a Larger Pond" by Peter Davies available at <http://www.dundee.ac.uk/cepmlp/journal/html/article6-14.html>

4. This will generate a company that will rank number 5 with a market capitalisation of around \$90 billion compared to around \$300 billion for Exxon Mobil, about \$200 billion for Royal Dutch Shell and BP and just over \$100 billion for TotalFinaElf.





**A new strategic agenda  
is emerging that is being driven  
by three broad factors:  
market forces, globalised world,  
and source of  
competitive advantage**

its very physical nature, has become an integral part of this development.

The process also spills into corporate social actions. Any large company is required to behave and to be seen to be behaving acceptably by all its diverse stakeholders wherever it operates. It needs to be regarded as such at a local, national and international level. Most companies would wish to operate in this manner instinctively. However, today the free flow of information, especially through internet technologies, makes such behaviours a requirement. The challenge for companies is to ensure that all parties are aligned and that policies and actions are fully transparent.

#### **4.3. Sources of Competitive Advantage**

The petroleum industry of 2001 is sure to be competitive. The competitive intensity has increased in the last twenty years. The industry will probably become increasingly competitive in the coming years. Energy markets have already "unbundled". It is potentially possible for any player to operate competitively in any one part of any value chain. Meanwhile, deregulation

globally continues to focus on the promotion of competition. And competition authorities have become especially vigilant in maintaining competitive intensities market-by-market, even as the industry consolidates.

In face of this all successful petroleum companies need to ensure that they are competitively advantaged. In open competitive markets this simply means that the most successful companies will be those who are the best at what they do.

The following factors can be expected to be critical in creating competitive advantage:

1. **Size:** size in itself will not create competitive advantage. However, large petroleum companies have the potential to be competitive if they use the opportunity to minimise unit costs by fully exploiting all scale economies. Size also tends to be accompanied by financial strength. This gives such companies "global reach"- the ability to lead and fund very large petroleum projects around the world. Financial markets appear to recognise these factors and currently value the larger petroleum companies more highly than smaller firms.

2. **Technology:** the petroleum industry is a high-tech industry. The ability to innovate in the application of the world's leading technologies will be particularly critical.

3. **People:** the best companies will employ the best people. They will provide them with stimulating career opportunities and invest in their training and development.

4. **Organisation:** the most competitive companies will have the best corporate organisations. Such organisations will need to be flexible and open, lack complexity, be network oriented and be able to stimulate innovation. There is no single mode.

Each successful company will have its unique culture.

5. **Partnerships:** No petroleum company will be able to operate in isolation. Partnerships will prevail across the operating spectrum. They will be as much between countries and companies as between companies. The best companies will be the best partners -the companies that others wish to do business with.

6. **Reputation and Brand:** it will be essential that customers, partners, shareholders and societies in which petroleum companies operate understand what each company stands for and what it will be able to deliver. The successful development of a consistently strong corporate reputation and brand will thus be very important.

7. **Risk Management:** Petroleum companies will be operating in uncertain and volatile product and commodity markets. they will also be investing and operating in a wide range of new countries where operating conditions are different and often not well understood. Such risks are expected to be widespread. Effective risk management will be a key source of competitive advantage.

This list is long and complex. It implies that success in the petroleum industry will not be easy. Not every company will be able to deliver on these factors. The reality that barriers to entry are low implies that further industrial change is likely. The future industry structure will reflect competitiveness and be comprised of the most successful companies.

#### **5. Conclusions**

This paper has addressed the current and future state of the world petroleum industry. The industry has changed dramatically in the last three years in face of a number of very large mergers and acquisitions. It is still in the

most cases privatisation -or at the very least commercialisation- is integral to the process of deregulation. At present there are no signs that the momentum of deregulation is being reversed. This is despite the growing evidence of protests from various pressure and interest groups such as those on the streets outside the Seattle meeting of the WTO in 1999.

Energy deregulation, in particular, looks set to continue, especially in the areas of gas and power and in the removal of barriers to international investment. Most petroleum companies are looking to invest in newly deregulating energy markets- including gas and power. They are also aware, however, of the uncertainties about future regulation and, especially, its precise form.

Environmental regulation will continue to be pivotal. All societies wish to reduce pollution and stricter environmental standards are being set everywhere. International companies will need to comply with the highest international standards everywhere they operate. The issue of climate change can be expected to become increasingly important.

#### 4.1.3 Financial Market Pressures

The final market pressures relate to those transmitted through financial markets. The pressures for enhanced company performances will be unrelenting. Shareholder pressures for performance are currently focusing on two particular areas: returns and growth. In terms of returns the markets often focus on a number of key indicators. Currently attention is on earnings and cash per share and return on capital employed. In order to make attractive total returns companies will also need to grow. Previously, income growth has been delivered as much from cost savings as from the returns

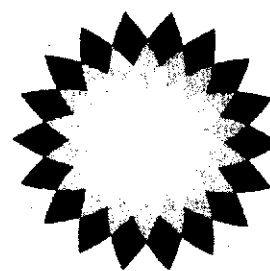
from new capital investment. It is appreciated that future growth will need to be generated to a greater degree from higher levels of capital investment. Despite the leads and lags that this generates, markets will be seeking to ensure that there is no dilution of year to year income during growth.

A growth agenda is challenging in an industry where global demand growth for oil and gas is likely to be slightly below global GDP (i.e. 2-3% p.a.) and where competition authorities could inhibit efforts to raise market shares in mature markets. Financial markets are pricing into current equity prices a growth of nominal income of 7-8% into current share prices for petroleum companies. Companies are seeing growth opportunities in a number of generic areas with the following most important:

1. Deepwater exploration and development, especially in the Gulf of Mexico and Angola.
2. Oil and gas developments in newly opening areas including the Caspian and the Middle East.
3. Internationally traded gas including LNG and long distance pipelines.
4. Investment in high growth markets especially in China, other parts of Asia and Latin America.
5. Gas marketing and power opportunities globally, especially as markets deregulate.
6. Retailing of gasoline and convenience products.
7. Investment in advantaged petrochemical capacity to meet rising global demand.

#### 4.2. Global Forces

The world at the beginning of the 21st century has changed from that which prevailed in previous decades. The forces of technology, economics and sociopolitics have begun to create a



**In terms of petroleum company behavior, 2000 can be characterised as cost reduction, reduction in the number of large mergers and acquisitions, increase in investment, and increased emphasis on gas**

new "globalised world". This new period is characterised by openness and the free flow of knowledge and information. The petroleum industry was arguably the first "global industry" more than a century ago. It is now an integral part of the new globalised world.

Most definitions of the "new economy" focus on "TMT" -technology, media and telecommunications -and do not include petroleum. However, the petroleum industry is one of the most advanced users of information technology. This includes direct application in technologies such as 3-D seismic surveying and production control systems to the daily use of IT for management information systems and video conferencing. It is an integral and dynamic part of the new global economy.

The combination of information and openness creates additional forces and responsibilities on any industry. The transparency of environmental, health and safety and social performance are clear examples. International standards are effectively being created and constantly monitored inside and outside companies. The petroleum industry, by

completed. In addition, it is widely believed that any new large scale corporate oil deal would face more stringent opposition from competition authorities, especially in the US.

● **An increase in investment.** Surveys indicate that industry capital investment budgets have been increased by over 20% from the depressed 1999 level. US drilling rigs are now operating at rates not seen for almost 3 years. For smaller companies, with previously weakened balance sheets and high indebtedness, the rise in investment followed the improvement in cash flow.

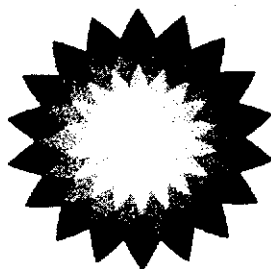
For financially stronger companies, it has reflected more the movement to a 'growth agenda'. Financial investors are looking for future performance from the petroleum sector that makes returns commensurate with other sectors-including TMT (Technology, Media and Telecommunications). Recent market prices discount petroleum sector income growth rates of around 7-8% p.a..

There is no evidence that investment has increased in light of expectations of a structural change in the external operating environment. It is still broadly believed within the industry that current high prices are cyclical and temporary and that investments must be sustainably viable at low prices and margins.

● There is also an **increased emphasis on gas**. This reflects a combination of factors, namely:

- strong gas demand growth prospects in light of:

- deregulation of gas markets
- increased efficiency and economic attractiveness of combined cycle gas turbines
- heightened environmental concerns and stricter standards
- increased desires and needs to import natural gas across international borders
- increased opportunities to supply



## The mergers and acquisitions gave the companies the opportunity to enhance profitability by reducing costs

gas as a result of:

- opening of new areas previously closed to international investment
- falling costs of LNG and long distance gas pipelines
- growth in gas demand exceeding recent gas supply growth in the US

The net result is that in the year 2000 the leading companies in the petroleum industry are financially strong, with a lower cost base and with an ability and intent to generate growth through higher investment spending globally.

### 4. Longer Term Strategic Forces

Thus the petroleum industry will enter 2001 in a strong position. However a new strategic agenda is emerging. This is being driven by three broad factors:

1. **Market forces:** both financial and petroleum markets will continue to put pressures on companies that will mould and influence their behaviours.

2. The new "globalised world" with few barriers, transparency and the wide availability of low cost information is imposing a new set of operating behaviours on all international

companies.

3. Each company will need to generate its own source of competitive advantage. The petroleum industry has few barriers to entry and no one company can be absolutely assured of generating superior performance.

### 4.1. Market Forces

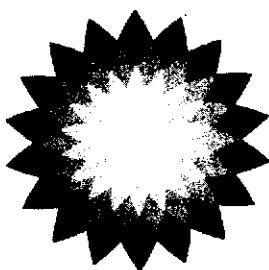
Industry strategies will be strongly influenced by pressures and forces from the external environment. These will come from the competitive environment in the relevant industrial markets, the regulatory environment and the pressures from shareholders and financial markets. Each will both drive and circumscribe the behaviour of companies and strongly influence their strategic responses.

#### 4.1.1. Prices and Margines

As noted above recent prices and margins have improved substantially compared to historic averages and in most cases are now well above long run marginal costs. Few companies believe that they can predict prices and margins with any accuracy. As a result they will plan and operate on the basis of prices and margins close to historic norms. Compared to today, this will mean that investments will all be tested against low prices and costs structures will continue to be squeezed to ensure long run viability. Recent technological advances and changes in managerial methods indicate that further and continual cost reductions are attainable.

#### 4.1.2 Regulation

The process of deregulation shows no sign of reversing. There remains a commonly held belief globally that deregulated markets are more efficient than command and control mechanisms. Deregulation began to a large degree in the US and UK in the 1980s and has spread to every region of the world. In



**One of the basic reasons  
that weakened performance  
was entering new players  
with strong finances  
and a desire to invest,  
pushing returns downwards**

were to be able to continue to attract capital in an increasingly transparent equity market and to reward their shareholders adequately. This inadequate profitability stemmed from developments within the industry rather than from any exogenous weakening of prices or margins.

The evidence on industry returns is widely available but can be seen vividly from data in a Morgan Stanley study which indicates that returns in the petroleum sector were both less than the average for the S&P index and were less than the cost of capital.

This weakened performance stemmed from a number of sources. The basic reasons were that:

1. The set of assets that the majors owned matured and were replaced by less profitable projects.

2. New players with strong finances and a desire to invest entered the industry pushing returns downwards.

and

3. The financial burden of meeting tighter environmental standards increased.

These factors were driven and accentuated by the process of

privatisation and deregulation- in oil consuming countries, in producing countries, in emerging markets in Asia and Latin America, in gas markets, in commoditised and disintegrating oil markets and in financial markets. The net effect was that too many resources were chasing the range of investment opportunities. Prices and returns fell. The declines in prices and margins and returns were a result of the industrial forces- not a cause.

The mergers and acquisitions gave the companies the opportunity to enhance profitability by reducing costs. This involved eliminating duplication, especially of head office overheads, and through operating level synergies. They were facilitated by the spread of cost effective information technology. It has created the opportunity to operate efficient flat organisations and to share relevant management information at low cost. To date, both BP and ExxonMobil are exceeding expectations with respect to the delivery of cost reductions.

Thus, by 1999, the structure of the petroleum industry has changed dramatically. The process of consolidation had begun to deliver some of the promised cost savings and thus to resolve one of the core challenges.

### **3. Current Issues Facing the Petroleum Industry**

The year 2000 has seen a new industrial landscape in the petroleum industry. It was the first year when the shape, form and behaviours of the new merged companies began to appear as the process of merger and acquisition advanced. The picture has then also been substantially affected by the improvement in the external environment with respect to prices and margins.

2000 has been an exceptional year in terms of the external operating environment. At the time of writing it

appears that:

1. Both oil and natural gas prices will average their highest levels for almost 20 years.

2. Refining margins are set to average their highest levels since the Gulf War.

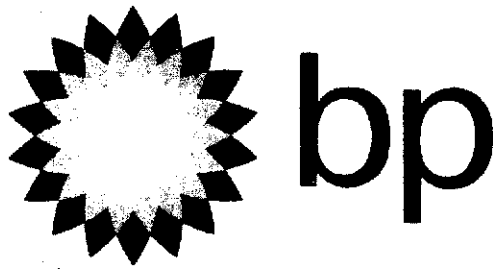
3. Petrochemicals prices have also recovered somewhat but margins have been depressed by high feedstock costs and rising capacity and remain below longer run average levels.

The net result has been that reported income has recovered strongly across the whole sector, balance sheets have been rebuilt and, in some cases, equity has been repurchased.

In terms of petroleum company behaviour, 2000 can be characterised as follows:

- **Continual focus on cost reduction.** Newly merged companies have been wringing out the planned cost savings. Companies that have not merged or acquired have also focused on delivery of cost reductions in order to sustain competitiveness. Throughout the industry it has been assumed that current high prices and margins will not be sustained in the medium term and thus costs need to be reduced to levels that generate adequate profitability at the prices and margins that prevailed over most of the 1990s.

- **Some reduction in the number of large mergers and acquisitions.** Most deals that have been completed have been either smaller or at a sector rather than corporate level. For example, BP purchased Castrol (lubricants) and Vastar (US upstream). Chevron and Philips combined their Chemicals interests into a joint venture. The only reasonably large corporate deal that has been announced is Chevron's intention to acquire Texaco<sup>(4)</sup>. To some degree this slowdown in deals reflects the lack of opportunity: the deals with the greatest benefit have already been



# Forces Driving the Petroleum Industry In 2001 and Beyond

Presented by:

Peter Davies, Chief Economist, BP

The Impact of the Middle East/ caspian oil on Global Energy Markets  
IIES, Tehran, November, 2000

## 1. Introduction

The international petroleum industry<sup>(1)</sup> has, over the last three years, experienced a period of dramatic structural change. Most visibly there has been a period of significant consolidation that has transformed the size, shape and names of most of the leading companies.

This paper addresses the forces that can be expected to drive the industry in the immediate and longer term future. In order to do this it is first necessary to analyse the causes of the changes in the late 1990s and to assess the degree to which these forces will continue to have an impact on the industry. The paper considers secondly the current state of the industry, especially in light of international market conditions, and assesses how these forces are affecting the companies. And finally, it examines other factors that can be expected to

drive the companies and the industry into the longer term.

## 2. Industrial Change in the 1990s

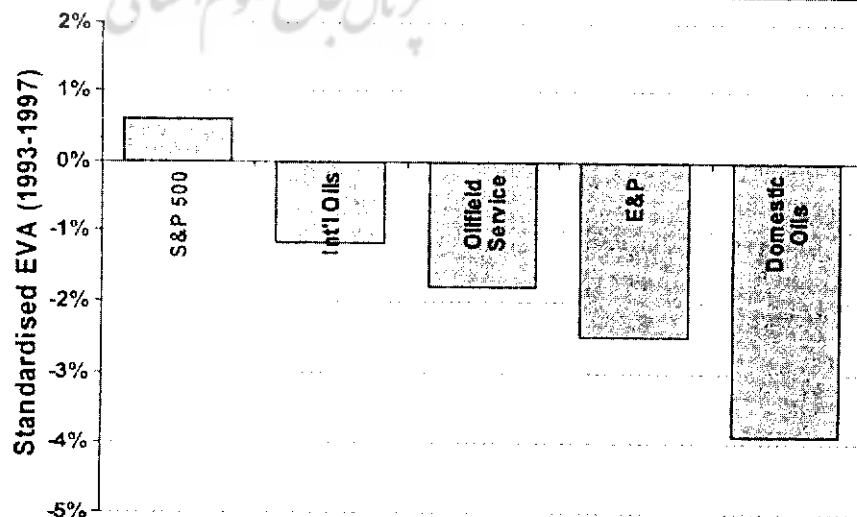
The face and structure of the international petroleum industry has arguably changed more in the

1998-2000 period than at any time for the last 70 or so years. A series of large scale mergers and takeovers has taken place with the result that the industry is now more concentrated and is now led by three or possibly four very large petroleum companies: ExxonMobil; BP (the combination of British Petroleum, Amoco, Arco and Burmah Castrol); Royal Dutch Shell and the somewhat TotalFinaElf. Of these four, only Shell has not acquired or merged.

This dramatic change in industrial structure has taken place against an historical background of remarkable stability. The companies widely known as the "Seven Sisters"<sup>(2)</sup> had remained intact and at the forefront of the industry for a very long period- with the single exception of Gulf Oil and allowing for some changes in corporate names over the years. This stability accrued despite the widespread nationalisation of many producing and other assets in the 1970s margin volatility. The degree and longevity of the stability was unusual in global industrial terms.

The causes of this restructuring were multifaceted<sup>(3)</sup>. The critical factor was that the profitability of the petroleum industry had diminished and that action was required if the leading companies

### Return on Capital vs Cost of Capital in Oil Sectors



Source: Morgan Stanley