The leading US independent oil companies : features and recent results

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Abstract

The aim of this article is to identify the main features of a sampling of the US independent oil companies Anadarko Petroleum, Occidental Petroleum, Marathon Oil, Unocal, Burlington Resources, Amerada Hess, Apache, Kerr-McGee, Devon Energy and Valero Energy. These companies are primarily active upstream, their gas dimension is sometimes very significant, higher than the majors in relative value. These groups are experiencing growing globalization, generally focused on a few key areas. Like the majors, they have adopted a dynamic external growth strategy, giving rise to significant increases in size. The analysis of their activities shows that these companies are full fledged players, exercising the function of operator in many cases and relying on leading edge technologies. Few of these companies are integrated, and the existence of large independents downstream is possible but rare. The financial results of the years 2000 and 2001 were exceptionally good, while those of the year 2002 are expected to slump, due particularly to the weakness of gas prices in the United States.

The aim of this article is to examine the leading US independent oil companies, by analyzing a sample of ten companies. Measured by the yardstick of market capitalization, the ten foremost oil groups worldwide, before the recent mergers, are ExxonMobil, Shell, BP, TotalFinaElf, Chevron, Eni, Texaco, RepsolYPF, Conoco and Phillips[1]. In the rest of this study, we shall refer to these companies as majors, insofar as they are very big, integrated and international. For our analysis, we have picked the following ten US companies, listed by decreasing order of market capitalization: Anadarko Petroleum, Occidental Petroleum, Marathon Oil, Unocal, Burlington Resources, Amerada Hess, Apache, Kerr-McGee, Devon Energy and Valero Energy[2]. These companies are primarily active in North America and represent players of significant size in this region. Their cumulative oil and gas reserves amount to five times those of Conoco and two and a half times those of Phillips. Note however that our analysis only covers a small part of the US and Canadian petroleum industry, insofar as this industry includes dozens of other smaller companies, attesting to the vitality to the oil and gas sector in this part of the world. In fact, although US oil imports are higher than the production of Saudi Arabia, the US remains the world's second oil producer and the first natural gas producer[3], and petroleum activity there is still very intense. The headquarters of the companies examined are located in Texas, at Houston (Anadarko, Apache, Burlington Resources, Marathon Oil) and San Antonio (Valero Energy), in Oklahoma, at Oklahoma City (Devon Energy, Kerr-McGee), in California at Los Angeles (Occidental) and El Segundo (Unocal), and in New-York (Amerada Hess), and this geographic arrangement reflects the principal producing regions of the country, with the exception of Alaska.

Presentation of the sample

Most of the companies examined are old, some formed in the 19th century, and have participated in the US and international petroleum history. The privileged links of Armand Hammer, the founder of Occidental, with the ex-communist countries, the presence of this company in Libya in the early 1970s, Unocal which made the first natural gas discovery in Alaska, and Kerr-McGee which drilled the first offshore well invisible from the shore, illustrate the importance and dynamism of these companies. The spectrum of their current activities accordingly stems from a long history, as well as the occasional more or less recent abandonment of areas deemed unstrategic. The strong competitive environment of the last fifteen years has led to drastic reassessments of the quality of the assets and led to major repositionings: one example, among others, is the case of Unocal, which, shortly after having filed patents for the manufacture of reformulated gasolines, still today the subject of numerous legal battles in the US courts, decided in 1997 to sell its downstream division to Tosco[4] in order to focus on the upstream oil and gas industry.

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[1] These companies were discussed in the previous article, published in September 2001 in Cahiers de l'Economie, No. 46, Institut Français du Pétrole.

[2] In fact, the tenth US independent company by market capitalization is EOG Resources and not Valero Energy. We nonetheless decided to select Valero for its downstream positioning and its merger with Ultramar Diamond Shamrock, which will lead to a significant increase in its size. EOG Resources is only active upstream.

[3] Source BP statistical review, June 2002.

[4] The same Tosco was acquired by Phillips in 2000, demonstrating the constant recomposition of the American petroleum landscape.

The ten companies of our sample are not all, like the majors, integrated companies. Some of them have decided to be present only in a single sector and to develop a strategy of concentration (in the sense of Michael Porter). These include Anadarko, Apache, Burlington Resources, Devon Energy and Unocal, which are only active upstream, and Valero Energy which focuses downstream. Others, like Amerada Hess and Marathon, are both producers and refiners, while Kerr-McGee and Occidental also have chemical assets[5], in addition to exploration and production. Note however that upstream activity is generally predominant: thus for example, the distribution of capital employed by Amerada Hess in 2001 privileges exploration and production, with more than 70% of investments devoted to this segment.

Besides, some companies have activities downstream in the gas chain and sometimes produce electricity by cogeneration. Figure 1 shows the mainly upstream positioning of the large independents, with nine companies out of ten in this sector. To varying degrees, these produce both oil and natural gas.

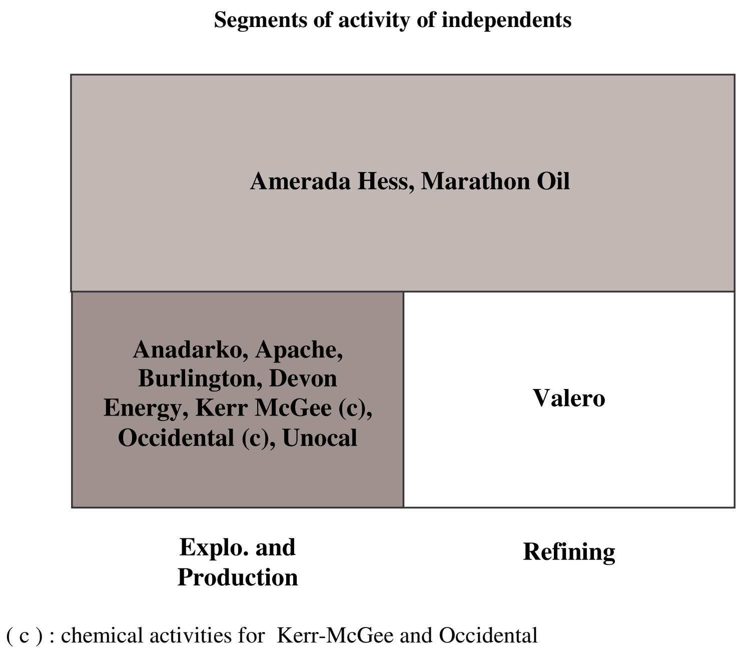


Figure 1: Segments of activity and independents

Relative situation of the independents examined and the majors

If we compare the smallest of the majors, ConocoPhillips, with the biggest independent, Anadarko, in terms of reserves and production and with Occidental in terms of results, a large difference in size exists between them, as expected (Figure 2).

[5] Kerr-McGee's chemical operations are in fact almost exclusively concerned with the production of a specific product, titanium dioxide, which is a base for pigments. Kerr-McGee is the world's third producer of titanium dioxide.

The reserves of ConocoPhillips amount to three and a half times the reserves of Anadarko and nearly three times its production. In terms of results, Occidental, the independent with the highest results in 2001, earns three times less than ConocoPhillips, and in May 2002, the market capitalization of Anadarko, was three times smaller than that of ConocoPhillips.

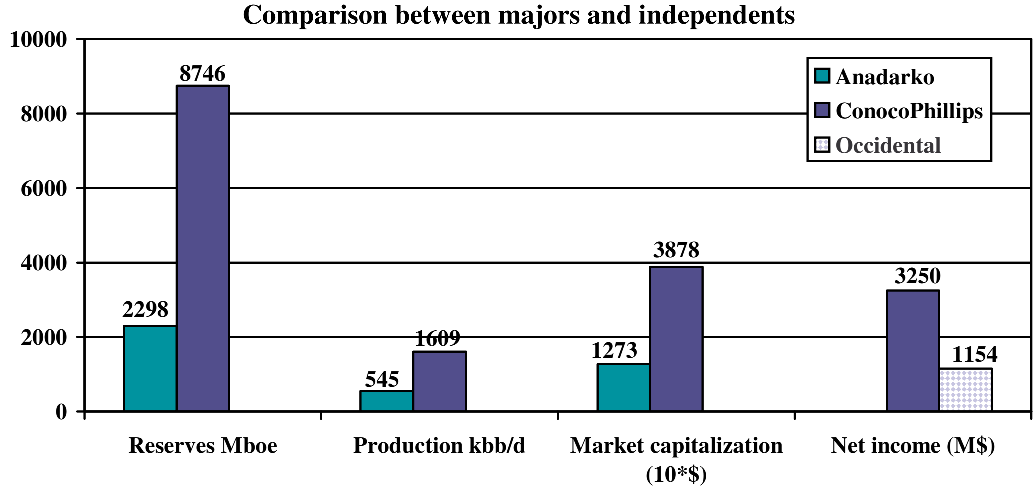


Figure 2 : Comparison between majors and independents

Source: annual reports

A predominance of upstream activities accompanied, in relative value for some companies, by a gas dimension larger than those of the majors.

This leads us first to analyze the features of the nine companies currently active upstream. The world's leading ten oil groups (from ExxonMobil to Phillips) are primarily oil companies, although the proportion of natural gas in total oil and gas production is close to 50% for some of them. The same cannot be said of several companies of our sample, which are primarily gas companies. Figures 3 and 4 which show the proved reserves and oil and gas production, demonstrate that this is clearly the case for Burlington Resources and Unocal, as well as Anadarko, Devon and Apache to a lesser degree.

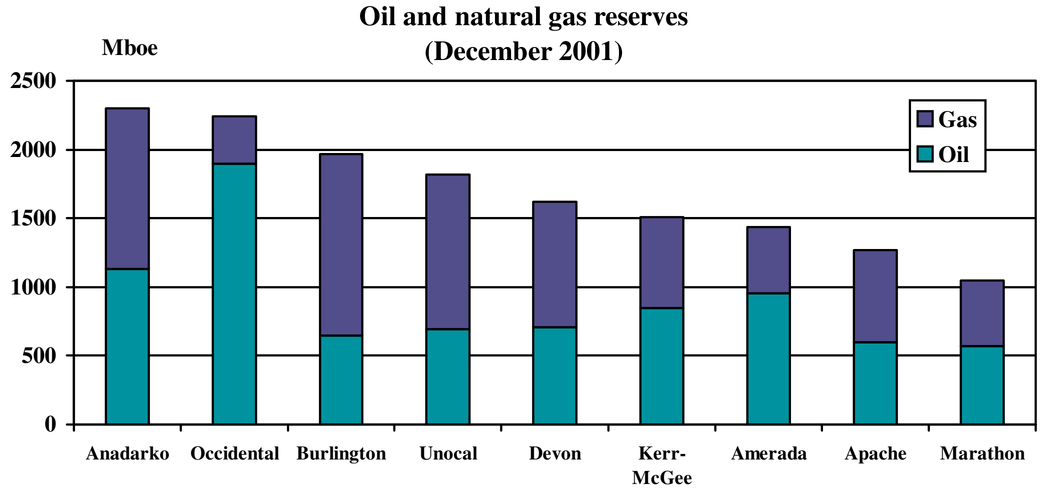


Figure 3: Oil and natural gas reserves (December 2001)

Source: annual reports

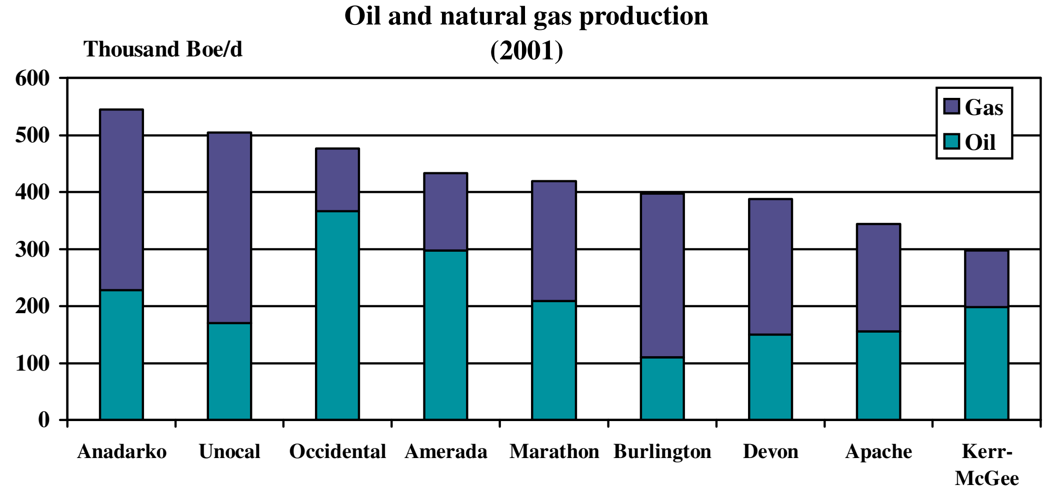
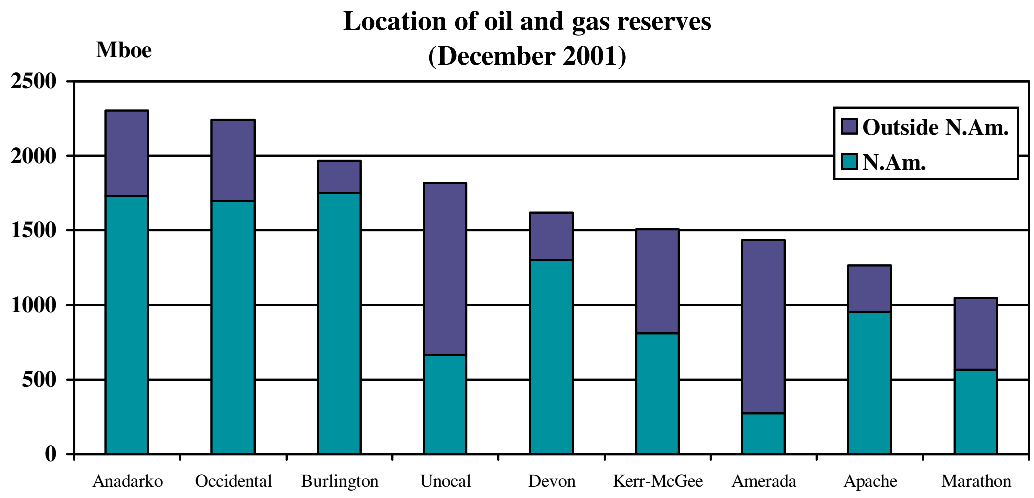


Figure 4 : Oil and natural gas production (2001)

Source: annual reports

Growing globalization, generally focused on few key areas

A limited level of globalization, with an activity base strongly focused on North America, is a feature traditionally associated with the independents, although historically speaking, some of these companies have made significant discoveries outside the North American continent Occidental in Libya, in Colombia, Unocal in Thailand).



Source: annual reports

Figure 5 : Location of oil and gas reserves (December 2001)

Figure 5, which shows the location of the reserves, illustrates this situation. However, some companies have oil and gas reserves mainly located outside North America (Amerada Hess, Unocal) and the general international orientation is clear if we consider the distribution of production zones (Table 1).

Rounded off values 2001 in %	Weight of oil production outside North America	Weight of gas production outside North America	Weight of oil + gas production outside North America
Amerada Hess	74	48	67
Unocal	40	45	44
Kerr-McGee	61	11	43
Marathon Oil	35	35	35
Occidental	42	8	33
Apache	40	19	28
Anadarko	24	0	11
Burlington	12	9	9
Devon Energy	23	2	8

Table 1: Oil and gas production outside North America

Amerada Hess, Kerr-McGee and Unocal produce at least 2/5 of their gas and gas outside North America. The weight of oil production outside the North American continent is significant for nearly all the companies[6], representing values of 20 to 75 %. Contrary to the majors, which produce in a large number of countries, these companies make most of their international production in a given area, the North Sea for Amerada Hess (11 Mtoe/year, or 50% of the total produced) and Kerr-McGee (5 Mtoe/year, or nearly 40% of the total produced), Algeria for Anadarko (1.1 Mtoe/year, or 1/3 of international production), again attesting to the concentration strategy. Only Occidental has a more diversified portfolio of activities (Qatar, Yemen, Russia, Colombia, Ecuador, Oman, Pakistan), but the quantities

[6] with the exception of Burlington Resources, which is nearly exclusively a gas company tightly focused on North America.

produced are generally small by country. Since natural gas is an energy more difficult to market, the independents are less active on the whole in production abroad: Amerada Hess and Unocal, present respectively in the North Sea (4 Gm3/year) and the Far East (8.5 Gm3/year), are the main two players in this area. The globalization of the independents is hence quite genuine and would be even more evident if we analyzed the areas where they conduct exploration activities, foreshadowing future production.

Full fledged players

The independents are not only minority partners, leaving the conduct of the operations to the majors. Thus it is not rare to find independents in charge of operations (Unocal in Thailand, Occidental in Colombia). Some companies also specialize in very technology intensive slots, like deep offshore (Kerr-McGee is the operator of Neptune and Baldpate, American reservoirs located in more than 1650 ft of water), the resumption of old fields to revive their production by enhanced recovery (Occidental, Amerada) and natural gas from coal mines (Devon, Marathon). Another illustration is the participation of Occidental and Marathon in one of the gas consortiums in Saudi Arabia (Core Venture No.2). Table 2 lists some of the upstream assets of the companies examined and reveals their weight on the international scene.

Company	Assets	Stake	Country
Amerada Hess	Ceiba field Ivanhoe/Rob Roy/Hamish Valhall gas field South Arne (oil and gas) AIOC Consortium Shares of Premier Oil plc	85 % 76.56 % 28. 09 % 57.48 % 2.72 % 25 %	Equatorial Guinea United Kingdom Norway Denmark Azerbaijan United Kingdom
Anadarko	Several fields in production, with Sonotrach		Algeria
Apache	Qarum Block Khalda Block (natural gas)	75 % 40 %	Egypt Egypt
Devon Energy	Azeri-Chirag-Gunashli (ACG)	5,6 %	Azerbaijan
Kerr-McGee	Neptune and Baldpate Gryphon CFD 11-1 et 11-2 Bayu-Undan Caspian Pipeline Consortium	50 % 61.5 % 40.1% 11.2 % 1.75%	US Gulf of Mexico United Kingdom China Timor Sea Kazakhstan/Russia
Marathon Oil	Kenai LNG Chain Foinaven and Foinaven East Alba	30 % 28% et 47% 63,2%	Alaska (USA) United Kingdom Equatorial Guinea
Occidental Petroleum	Cano Limon	35 %	Colombia
Unocal	13 gas fields Yadana AIOC	Operator 28.25 % 10.28 %	Thailand Myanmar Azerbaijan

Table 2: Examples of upstream assets owned by the independents

To conclude the presentation of our sample, we may observe the predominance of the upstream sector in the activities of these US independents. It also appears that these ten companies, although they may not have the world scale of the ten international majors, represent significant competitors of the majors in the areas of activity where they concentrate. This illustrates the relevance of the niche strategy that they have adopted and the name of super-independents that they are sometimes given.

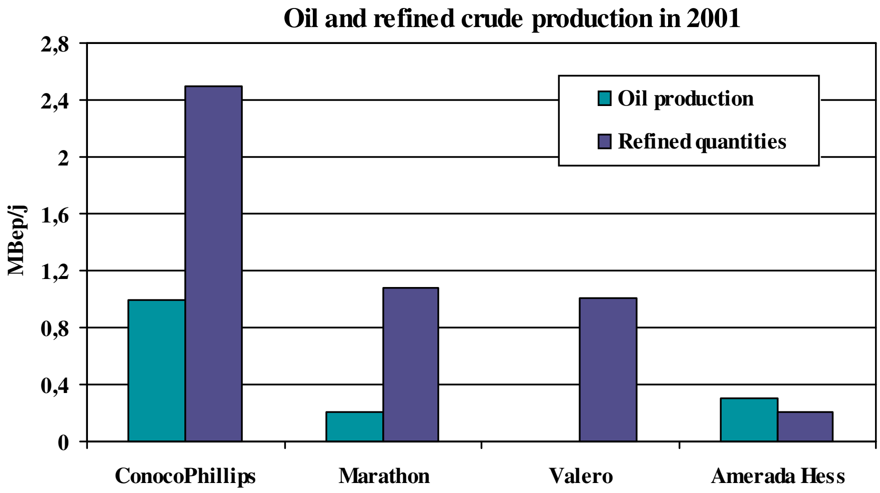
Few independents are integrated

The ten biggest US independent oil companies therefore display a strong upstream orientation of their activities, but some of them are nonetheless involved in the downstream sector of the petroleum chain: this is the case of Amerada Hess, Marathon and Valero[7] (Figure 5). Thus with seven refineries, Marathon Ashlands Petroleum (62% controlled by Marathon) accounts for nearly 6% for US refining capacity. Valero Energy controls a dozen refineries and Amerada Hess has a smaller presence, since it is only active on two refining facilities (50% stake in the Hovensa Complex in the US Virgin Islands and Port Reading catalytic cracker in New Jersey). Figure 6 compares the levels of production and refined crude and shows that Valero Energy and Marathon are exclusively or chiefly downstream companies, while Amerada Hess has a balanced structure.

Some independents have chemical activities. Kerr-McGee, wishing to focus on its key areas, sold its refining and coal related assets in the 1990s, but retained the proprietary chemicals segment (pigments etc), which contributed in 2000 to about 10% of income from operations (7% in 2001). The same applies to Occidental, which has a significant chemical branch, focused on the vinyl chloride chain. Moreover, the presence in the gas logistics (midstream) and in the downstream gas sector through the installation of power generation and marketing structures, particularly by cogeneration, are development guidelines of certain companies. Thus Marathon recently acquired Enron's delivery rights at the regasification terminal of the Isle of Elba and seeks to promote the installation of import gasline between Norway and the United Kingdom.

These few examples are nonetheless exceptions which confirm the rule of the upstream concentration of the activities of most of the independents examined.

[7] only active downstream.



Source: annual reports

Figure 6: Oil and refined crude production in 2001

The existence of big independents downstream is possible, but rare.

Valero Energy is the only company of our sample exclusively specialized in refining and distribution. This Texan company, headquartered in San Antonio, now has twelve refineries, in Texas, Louisiana, New Jersey, Oklahoma, Colorado, California and Canada, with a combined capacity of nearly 2 Mb/d (Table 3), and a distribution network spread over thirty-four American states and Canada. Its refining capability is highly sophisticated, with considerable operational flexibility enabling it to process a whole range of heavy feedstocks and convert them to gasolines and diesels meeting the most stringent specifications, such as those of the California Air Resources Board (CARB). Valero Energy has adopted a strategy of concentration (sale of its natural gas activities in 1996 for 1.5 G$) and intense external growth: thus five years ago, it had only one 170 000 b/d refinery.

In 2001, moreover, the company virtually doubled in size, following its acquisition of Ulltramar Diamond Shamrock, an operation which received the green light from the Federal Trade Commission on 18 December 2001. Yet it is still the smallest company of our sample. Hence it appears more difficult for an independent to grow and survive downstream than upstream. It is very likely that the high investments needed to manufacture high grade products demanded by the US market penalize or jeopardize the existence of smaller companies in this sector. Besides, the margins are often narrow and the rates of return on capital employed (ROCE) are generally much lower downstream than upstream.

Refinery name	Capacity (barrels per day)	Location
Corpus Christi	225 000	Texas
Texas City	210 000	Texas
Houston	115 000	Texas
Three rivers	98000	Texas
McKee	170000	Texas
Krotz Springs	85 000	Louisiane
Paulsboro	160 000	New Jersey
Benicia	160 000	California
Wilmington	140000	California
Ardmore	85000	Oklahoma
Denver	27000	Colorado
Quebec (Jean Gaulin)	205000	Canada

Source: annual reports

Table 3: Capacity and location of Valero Energy refineries

A dynamic external growth strategy

The optimization of the activity portfolio accordingly represents a significant concern of the independents. Thanks to abundant financial resources, large scale projects have been completed, leading to major reinforcements: doubling of size for Anadarko, sharp growth of Occidental in California and Texas, for example. Most of the operations listed in Table 4 illustrate the quest for reinforcement in areas where the companies are already active (North America) in order to benefit from new synergies, to spread fixed cost over a broader base, and to achieve critical size in certain regions. The possibility of acquiring assets which the majors abandon, for reasons of streamlining or because they are forced to do so in the United States by the Federal Trade Commission, the attractions of Canada as a natural area of expansion and a zone of future growth, explain the numerous acquisitions of onshore reserves and refining assets.

Furthermore, since the number of interesting companies likely to be acquired is shrinking, the competition between the different players has led to a rapid succession of mergers and acquisitions. This was especially true in 2000 and early 2001 insofar as, thanks to the high prices of oil and natural gas, the financial situation of the companies was excellent and many operations were conducted not by trading shares, but by cash outflows (Devon Energy, Marathon in 2001). The many acquisitions should not obscure the fact that the amounts involved are high, often in the range of several billion dollars, representing large scale operations for these companies.

It is also important to note that many disinvestments have taken place, in order to focus on the most promising assets and to release liquidities designed to minimize debt. Thus at their scale and in their field of activity, the independents appear to display the same behavior as the majors, in their wish for external growth and optimization of activities. Yet the financing of these mergers and acquisitions generally leads to a much higher debt level for the independents than for the majors.

Company	Year 1998-1999	Year 2000	Year 2001	Year 2002
Amerada Hess	- Joint-Venture with PDVSA concerning the Hovensa refinery (Caribbean)		- Acquisition of Triton Energy (3.2 G$). - Acquisition of LLOG Exploration Co (750 M$)	- Agreement to acquire interests in Gambia
Anadarko	- Acquisition of assets Occidental Petroleum in the Anadarko basin (120 M$)	- Merger with Union Pacific Resources (7.G$). - Acquisition of Berkley Petroleum, Canada (1G$). - Acquisition of Gulfstream Resources Canada (140 M$).		- Acquisition of Howell's Corporation (265 M$) - Acquisition of assets of BP in Qatar
Apache C.	- Acquisition of production assets of Shell in Canada and in the Gulf of Mexico (1.4 G$).	- Acquisition of Occidental holdings in the Gulf of Mexico (365 M$) and assets of Collins & Ware Inc (320 M$)	- Acquisition of the interests Repsol YPF in Egypt's Western Desert	
Burlington R.			- Acquisition of Canadian Hunter Exploration (2,1 G$)	
Devon Energy	- Acquisition of Northstar Energy of Calgary (750 M$) - Acquisition of PennzEnergy (2.6 G$)	- Merger with Santa Fe Snyder Corporation (3.3 G$)	- Acquisition of Mitchell Energy & Development Corp and Anderson Exploration Ltd (5 G$)	- Joint Venture with ChevronTexaco for exploration activities in the Gulf of Mexico
Kerr-McGee	- Acquisition of the British assets of Gulf Canada Resources - Merger with Oryx Energy Company (2.9 G$)	- Acquisition of the British upstream assets of Repsol S.A.(555 M$)	- Acquisition of HS Resources Inc (2,1 G$).	
Marathon Oil	- Acquisition of Tarragon Oil and Gas Limited (Canada). - Merger of the main downstream assets of Marathon and Ashland in Marathon Ashland Petroleum (62 % Marathon).		- Acquisition of Pennaco energy Corp (500 M$). - Joint Venture with Kinder Morgan Energy Partner (Permian Basin)	- Acquisition of Enron delivery rights at the LNG regasification terminal on the Isle of Elba, in Georgia (31.9 M$) - Acquisition of assets of CMS Energy en Equatorial Guinea (993 M$)
Occidental	- Acquisition of 78 % of the giant Elk Hills field in California	- Acquisition of Altura Energy, Ltd. (3.6 G$)		- Acquisition of 24.5% stake of the Dolphin project and of Dolphin Energy Limited in the United Arab Emirates (310 M$)
Valero Energy	- Acquisition of the mobile refinery in Paulsboro (328 M$)	- Acquisition of the downstream assets of Enron in California (1.1G$)	- Merger with Ultramar Diamond Shamrock Corporation (3,5 G$)	- Acquisition of a 430 km gas pipeline in Texas (64 M$)

Table 4: Examples of acquisitions and mergers completed by the independents

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Developments in reserves

These overall acquisitions explain a good share of the growth of reserves of the companies of our sample (Figure 7). With the exception of Marathon, all the companies have increase their reserves very significantly in four years (threefold increase for Devon Energy, doubling of Anadarko and Apache).

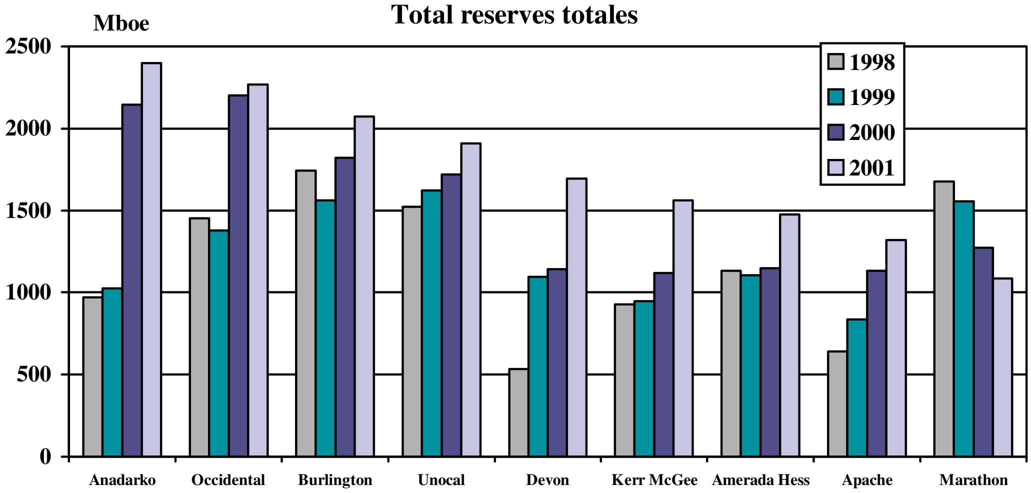

Figure 7: Total reserves since 1998

Source: annual reports

Table 5 shows the anticipated lifetime of the proved oil and gas reserves of the companies examined, at the present rate of production (end of year reserves divided by production of the year), with a comparison with the situation of the majors. If we only consider the specific cases of Repsol YPF and Marathon, the R/P ratio of the majors generally ranges from twelve to fifteen years, while that of the independents displays a wider dispersion over a range of nine to fourteen years. Despite the sharp increases, the independent companies of our sample hence possess smaller proved oil and gas reserves than the majors, not only in absolute value, but also generally in terms of lifetime[8].

[8] Some companies have abnormally high or low figures for the life of their reserves, due to the opposing variations during the year in the level of their reserves and their production. This applies in particular to Repsol YPF, which registered a 20% increase in its reserves in 2001 with a concomitant drop of 3% in its production. Marathon registered a drop in its reserves over the last four years, explaining its low R/P ratio.

2001	R/P	2001	R/P
Kerr McGee	14.0	Repsol-YPF	17.7
Burlington	13.5	ConocoPhillips	14.9
Occidental	12.8	ExxonMobil	14
Devon	12	Shell	13.9
Anadarko	11.4	TotalFinaElf	13.7
Apache	10.1	Eni	13.7
Unocal	9.9	BP	12
Amerada Hess	9.3	ChevronTexaco	12
Marathon Oil	6.8		

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Mis en forme

Source: annual reports

Table 5: R/P ratio of the leading oil companies, majors and independents

2001 Results

The results for the years 2000 and 2001 for the independents were exceptionally good. In 2000, the companies benefited from the high prices of oil and natural gas, as well as higher refining margins for the companies active downstream. Prices fell in 2001, affecting the performance of certain companies. However, the increases in production often help to offset the price effect. Thus the reserves for the year 2001 of our group of independents are often comparable to those of the year 2000, despite the drop in price per barrel (about 15%) from one year to the next, and in the price of gas in the United States (-20%). The rise in production in 2001, often associated with mergers and acquisitions of Amerada Hess (+16%), Anadarko (+ 78 %), Apache (+ 32 %), and Devon Energy (+ 12 %) and Unocal (+ 8 %) explain the trend in the results of these companies. The selling price coverage operations of some of these companies conducted on forward markets also diminished the impact of the lower prices.

The comparison of the results between different companies must nonetheless be made with caution, insofar as the accounting methods employed are not always rigorously comparable. Two methods of accounting for exploration expenditures[9] exists in particular and are accepted by the Securities Exchange Commission (SEC): the successful-efforts method and the full cost method. The former consists in considering geology, geophysics and dry well expenditures as expenses, while positive wells are capitalized and depreciated according to the production rate. By contrast, with the full cost method, all the exploration expenditures, (geology, geophysics and drilling) are capitalized and depreciated. Both approaches are justified: the first naturally treats as expenses any unsuccessful exploration, which effectively has no value for the future. The second amounts to interpreting the entire exploration activity as an investment which must therefore be depreciated. Anadarko, Apache and Devon use the full cost method while Amerada Hess, Burlington Resources, Kerr-McGee, Marathon Oil, Occidental and Unocal employ the successful-efforts method.

[9] and dry development wells.

Moreover, depending on the conditions in which a merger is completed between two companies, it was possible, up to 30 June 2001, to consider the operation from an accounting standpoint as a pooling of interests or as an acquisition (purchase method). We saw earlier that the independents completed several mergers and acquisitions in recent years, and these differences in accounting make comparisons difficult over several years and could require retreatment, in order to make a detailed analysis of performance. The American accounting authorities now require all mergers and operations to be considered as acquisitions (Statements of Financial Accounting Standards No.141), which will introduce more uniformity in the presentation of the financial statements.

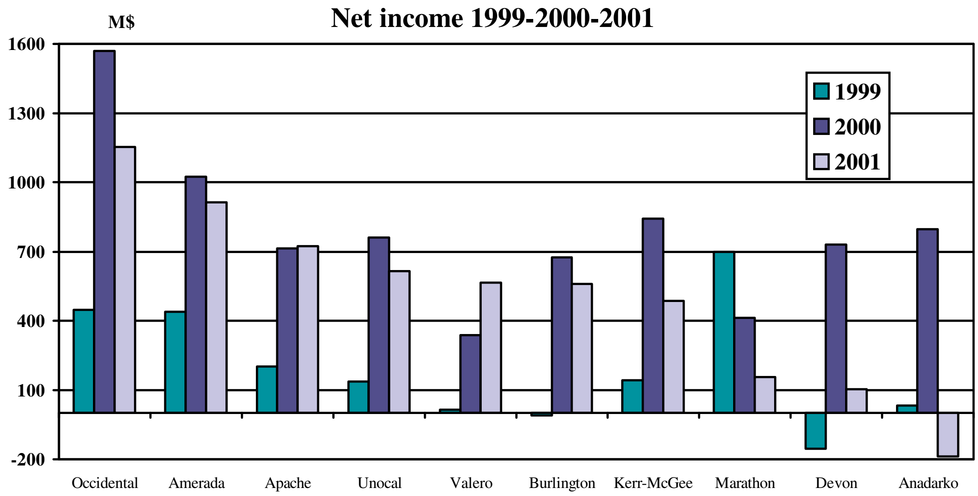


Figure 8: Net income 1999-2000-2001 Source: annual reports

Figure 8 shows that Occidental is the leading independent in terms of net earnings. In 2001, chemical operations posted a loss, so that its entire profit is derived from its upstream activities. Through its size and variety of countries where it produces, the company is close to the majors, but it retains a feature of the independents, namely its very strong US involvement (60% of its oil and gas production). Occidental's good performance is explained by a sharp growth in its upstream operations earnings (associated partly with the acquisition of Altura Energy, which significantly boosted its oil production in the United States).

For reasons of an accounting nature, net income figures can be affected by the volatility of crude oil and natural gas prices. In fact, at the end of each quarter, the companies have to evaluate their onshore reserves using the price on the last day of the quarter. If the discounted value of the future production flows is lower than the accounting value of the assets, a provision must be set aside for depreciation (impairments). This is an exceptional non-disbursable accounting expense, which has no impact on the cash flows, but which reduces net income. The latter may therefore not faithfully represent the performance for the year. In 2001, this was the case for Anadarko, which posted an accounting loss of 188 M$ (compared with income of 1389 M$, including this provision) and for Devon, whose net income in 2001 dropped sharply for the same reason. These two companies, as we showed earlier, made acquisitions in recent years and valorized them in their books in agreement with accounting rules, using the "fair value" of the reserves estimated on the basis of the price forecasts that the company management considers realistic over the medium term. Due to the sharp recent fluctuations, the closing prices of certain quarters in 2001 were substantially lower than the values employed and hence led to the setting aside of these provisions. It is conceivable that in a context of high price volatility, with depressed or exaggeratedly high prices, this accounting necessity could effect the faithful image of the accounts, leading to an underestimation of the value of the company's reserves.

In terms of operational performance, the second company of our example is therefore Anadarko, a company that has slightly bigger oil and gas reserves than Occidental. Through its external growth strategy and increasing the production of its reserves, Anadarko has the largest oil and gas production (27 Mtoe/year) of our sample, followed by Unocal and Occidental.

Marathon recorded exceptional expenses in 2001, associated with the separation of the oil and steel activities (Marathon is controlled by USX Corporation, a steel holding company). Without these one-time items, Marathon will be the third company in terms of results, thanks in particular to the excellent contribution of refining and distribution activities (about 50% of income from operations).

The only downstream independent of our sample, Valero Energy, also significantly increases its profits, while the two mainly gas companies Unocal and Burlington Resources, are affected by the drop in gas prices on the North American market.

Market capitalization

Our sample consists of the ten US companies trailing the eight international majors, according to the yardstick of market capitalization. The world contains many other oil companies which are bigger, but which are fully or mainly owned by public capital and are not listed on the stock exchange for the time being. Some public companies have part of their capital listed and their market value is estimated by publications like Business Week and the Financial Times. Considering the companies elected by these two publications and the private non-American companies, the following companies can be added between the eight majors and the companies of our sampling[10]: Petrobras (27 G$), Statoil (18.9 G$), Yukos (18.7 G$), Gazprom (17.4 G$), BG Group (15.3 G$), EnCana (14.7 G$), Norsk Hydro (13.4 G$). Anadarko Petroleum, the first company of our sample, then falls to sixteenth position in terms of market capitalization worldwide, but it is clear that this type of classification has its limits with regard to the evaluation of certain companies (for example Gazprom) which is sharply biased by the fact that their floating capital (listed on the stock exchange) is very limited.

The drop in crude prices in second half of 2001 reduced the market values, but did not overall change the classification between the different companies. Anadarko thus takes first place in terms of market value, trailed far behind by Occidental in second place (Figure 9).

[10] Market capitalization on 1 April 2002 according to Business Week, for Statoil, BG Group, EnCana, Norsk Hydro. Market capitalization on 1 January 2002, according to the Financial Times for Petrobras, Yukos, Gazprom.

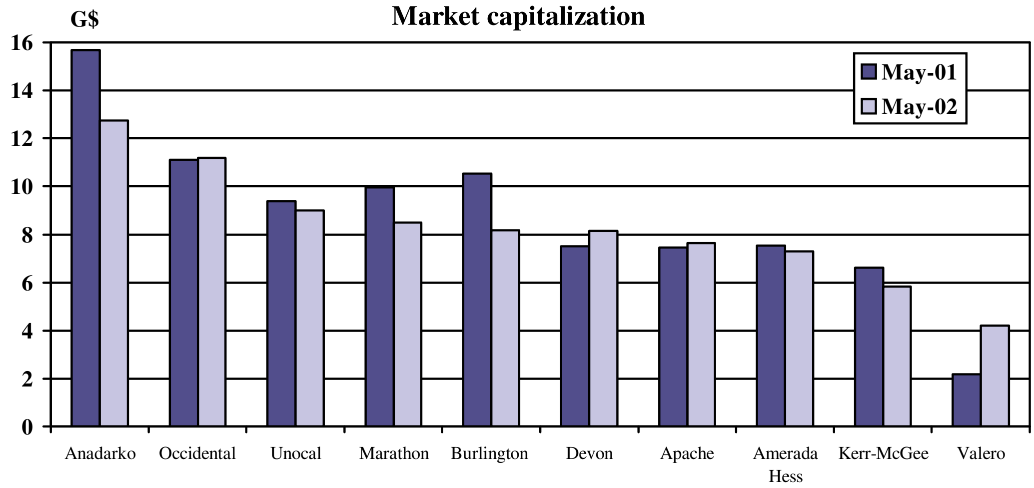


Figure 9: Market capitalization

Source: Business Week

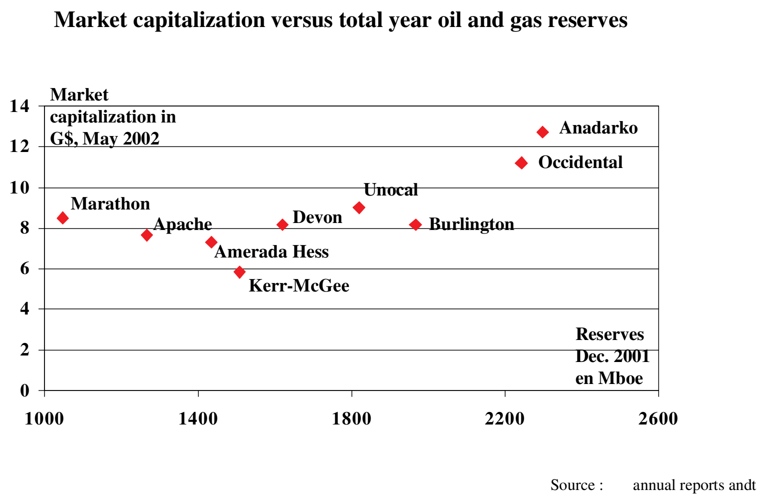


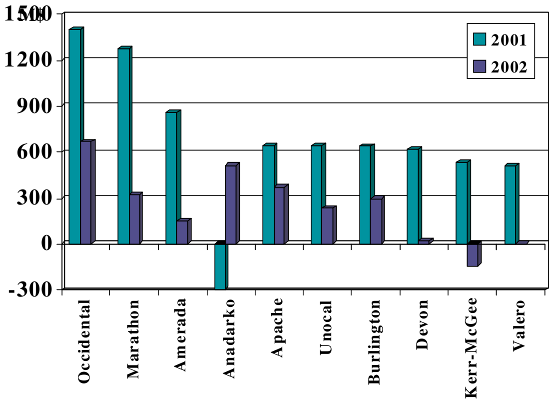
Figure 10: Market capitalization versus total oil and gas reserves

Figure 10 shows the positions of the nine companies active upstream. It clearly shows a group of independents bunched together (Apache, Amerada, Kerr-McGee, Devon), with a significant difference in reserves from the more gas intensive companies of our sample (Burlington in the United States, Unocal in Southeast Asia) and finally, two companies which stand out sharply: Anadarko and Occidental. Marathon is slightly apart due to its smaller reserves, but a market capitalization that results from its deep engagement in refining and distribution.

Conclusion: a glance at 2002 results

Performance in 2002 is below that of 2001, due to the low prices at the start of the year. Crude prices rose during the year, while natural gas prices remained substantially below their 2001 value. The companies present in the refining sector (Amerada Hess, Marathon, Valero) have suffered from the small refining margins. Some exceptional expenses (associated with the depreciation of assets: impairments) also tended to reduce the net income of Amerada Hess, Devon and Kerr-McGee.

Net income 2002 (9 months)



Source: Press releases

Figure 11: Net income for the first nine months of 2002

Thus due to a less favorable price and margin environment, the financial results of our sampling of companies should be slightly lower in 2002, after two exceptional years (2000 and 2001). The groups generally hope for a recover of natural gas prices in the United States to stimulate their results in the coming years. Performance in 2003 will also obviously depend on the price of crude, which is at a relatively high level today due to international pressures. This level is not necessarily sustainable over the long term, but the invasion of Iraq, if it materializes, could bring new pressures on short-term prices.

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