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THE OIL MARKET AND OIL COMPANY STOCKS

I'll start with two quotes from Mark Twain that may sound a bit antithetical to what I want to write about today:

“A mine is a hole in the ground with a liar on top.”

“As for commodities, the only consistently profitable extractive industry is dentistry.”

What did Mark Twain mean by that? The first quote points out that mining (or drilling) companies in general often need capital long before they get to the actual production and that they sometimes charm it out of investors using exaggerated figures about the size, quality, returns, and economics of the deposit.

The second quote alludes to the fact that extractive industries are very cyclical, whereby fat profitable years alternate with lean and often loss-making ones.

Our own experience with investments into oil companies broadly corresponds to this description. Sometime around 2011, we decided as investors to set these companies aside altogether. The main argument was that the sector as a whole did not, in our view, have characteristics that would be beneficial for investors in the long term. Above all, that was because little free cash flow would find its way back to the investors. Nevertheless, this year we have returned to investing in oil producers. In the following text I want to describe what led us to do so.

Why is there any point at all in getting involved with oil and the oil market? Oil is itself a very controversial commodity. Opinions on its future vary, and there even are calls for an immediate end to its production. Sometimes when I talk about investing in oil companies, I am accused of being paid by the oil lobby. Usually, that’s when there is no better argument close to hand.

Investing is not about what one wishes would happen, however, but rather about what one thinks will happen. These are two wholly different things and they should not be confused. If I had my choice, I would prefer oil to cost not the current USD 75 but perhaps USD 25, to be cheap and, most importantly, to be readily available where it is needed. The poorest two-thirds of the planet’s population in particular would be helped greatly by such situation. Because I cannot make this change in the world, however, it is completely irrelevant to investing. What is relevant is the direction where the world is heading.

When I look around the world, figuratively speaking, it seems to me that the reality is quite different. The world as a whole is facing a chronic energy shortage. Václav Smil, one of the smartest people alive today and one of the few top scientists who fall into the generalist category, claims that about 2–3 billion people on the planet have the same per capita energy consumption as did Germany and France in 1860. So, in terms of energy consumption, about one-third of people still live in relatively primitive conditions. In addition, about 600 million people have no electricity whatsoever.

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The world is not Germany and California when it comes to electricity and energy sufficiency. It is primarily China, India, Latin America, and the whole of Africa. These are places where large numbers of people still have relatively low standards of living. Most of them do not even dream of the living standards that we in the rich and developed world enjoy. Their ambitions are natural. They want a better, easier, more comfortable and secure life. That is completely logical, and it should be our duty to try and help them to achieve this.

As their standard of living rises, their energy consumption will also increase significantly. Just to give a very rough idea, China's per capita energy consumption is about half that of the EU. India's is about a quarter that of China. If India were to catch up with today's China in terms of energy use, that would represent additional energy consumption that is about half again more than that of the EU today. These are enormous numbers. The reality is simply that the world as a whole will need much more energy than it does today and that oil (and gas) still play an irreplaceable role in the energy mix.

The future development expected and desired in the poorer two-thirds of the world will also require enormous investments in infrastructure. According to Václav Smil, the whole of civilisation today rests upon four basic pillars. These are ammonia, steel, cement, and plastics. These have several things in common: They have no suitable substitutes, their production is extremely energy intensive, and they cannot be produced without fossil fuels. By the way, no renewable energy source can be built without using fossil fuels. As much as many of us would like to see the end of fossil fuels extraction and the end of oil itself, it is far more probable that they will still be with us for a very long time. In the case of oil, it is also possible that demand for it will continue to rise.

Meanwhile, demand for oil has been rising for a long time, and with relatively small fluctuations. Sometime in the mid-1960s, global demand was about 30 million barrels per day. Today we are just over 100 million barrels a day. Demand has only fallen significantly twice in that time: first in the early 1980s following the 1970s energy crisis and then in 2020 due to the fact that most economies were in lockdown.

The demand for oil has some important characteristics. Its short-run price elasticity is very low due to the absence of substitutes. It's approximately just −0.06. Even a larger rapid increase in price limits demand only slightly in the short run. The long-term price elasticity is greater. It is somewhere between −0.2 and −0.3. That is measured not in days or months, however, but rather in years. There is also one much more significant influence working against it, and this is income elasticity. This is estimated at 0.55 in rich countries and 1.1 in poor countries. So if, for example, in the aforementioned India, the income of the population doubles, their demand for oil should increase by even more. High income elasticity has a much greater impact on demand for oil than does price elasticity, and it is therefore to be expected that the wealth of the poorer two-thirds of the world's population will be decisive for future oil demand.

If you look up a graph that shows GDP per capita in each country on the x-axis and energy consumption per capita on the y-axis, you can easily see that a very strong positive

correlation exists between the two. The higher the GDP per capita, the greater the energy consumption. One would like to say that this is self-evident, that greater wealth allows for higher energy consumption. But what if the causality is reversed? Is it not the case that the richer countries are those that have cheap energy available in the quantities needed? I would be inclined to think so. The history of civilisation's development confirms that those areas where energy was more available and less expensive developed faster. If this is indeed the case, then the desired growth of wealth in the poorer two-thirds of the world's population is contingent upon affordably accessible, reliable, and sufficiently robust energy sources. If we wish to see rising living standards in the poorer parts of the globe, then we probably have no choice but to accept that this will entail growing demand for oil and other fossil fuels.

Let us now move to the supply side of the oil market. The supply of oil, like its demand, is very inelastic in the short term. The short-run elasticity of supply is estimated at 0.04. Short-term major movements in the price of oil have only a minimal effect on its supply. Why? If the price of oil falls, its production remains virtually unchanged in the short run. Oil production cannot be switched on and off at will in response to price movements. It is determined by the geological, technological, and economic conditions of the particular resource. If the price of oil rises, the level of oil production also remains practically unchanged in the short term. This is due to the fact that the reserve capacity to quickly increase production from existing sources is quite minimal and it takes years to increase production from new fields. That is how long is the investment cycle in this sector.

Thus, if we summarise the basic characteristics of oil demand and supply into a few main conclusions, then it follows that in the short run both sides are almost immune in terms of their response to price changes. Reserve capacity is low, just as above-ground storage capacity is low. Moreover, unlike in earlier times, there are no so-called swing producers in the world today that are large enough to balance medium-term oil market imbalances on their own. For all these reasons, short-term market imbalances bring huge price movements. In the short term, price is determined by demand. In the long run, however, it is determined by supply. This is because, in the long term, the price of oil must be at least at a level that encourages oil producers to invest in the development of new production sufficient to meet the demand for oil with their total production. Moreover, this price incentive must also be great enough for investment to compensate for the decline in extraction from producing sources (known as the depletion rate). The overall average rate of this decline is estimated at 3–6% per year.

The price incentive is a key variable in analysing oil-producing companies. What are its estimates today? Estimates of the price incentive are various for different types of deposits and for different regions. The lowest will be in the Middle East and Eurasia. However, it does not matter where the price incentive lies in the cheapest regions. What matters is where the price incentive lies for those fields that are needed to produce the last barrel of oil needed to satisfy demand. This is the so-called marginal incentive price. We estimate it to be somewhere in the range of USD 75–80 per barrel. At a minimum. In the long term, several factors are pushing it upwards.

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The two most important of these at the moment are inflation and political pressure. The impact of inflation is obvious. If prices have risen by, say, 10% over the past year (as an example), then both the capital outlays required to develop oil fields and the operating costs of extraction itself can be expected to be much higher. The price incentive (i.e. the price at which it is worthwhile to invest in the development of oilfields in order to generate the required return) is rising. It is also rising because of the political backlash that oil producers are facing. Today, we routinely hear demands from politicians to curb production, threats of extraordinary taxes, and a general castigation of companies in the sector. Banks refuse to finance oil and gas investments, insurance companies refuse to insure them, and sometimes even shareholders themselves are pushing for oil producers to switch to other businesses. This, of course, reduces the willingness of management to invest in the long-term development of oil fields. Why, they ask themselves, should we complicate our lives? Instead, they prefer to rely upon only existing capacity for production and to pay out free cash flow to shareholders rather than to invest in new capacity. At current oil company share prices and with the current price of oil, buying back their own shares often has a much higher ROI than does investing in production growth. The managements of these companies are therefore behaving quite rationally.

The current oil price simply does not seem high enough to tempt them into investing more. Investment into new production capacity is now at its lowest level in a decade and it is perhaps a third of what would be needed to meet expected rising demand. The result cannot be anything other than a much higher oil price in the long term than we all would like. Needless to say, it is the poorer two-thirds of the planet's population that will suffer most. In order for the price of oil to be lower, investment in oil production would have to increase significantly. That is the plain reality. The world is not geared up for this line of reasoning, however, and so the companies that extract oil are adapting accordingly.

Now let's move from the general to the specific. As concerns the valuation of oil-producing companies, the basis is the same as for companies in any other industry: the value of the company is equal to the present value of all future cash flows that shareholders can take home each year without the company's business suffering in its current size and form. Nevertheless, oil production does have a few specifics.

First, all firms are in the position of so-called "price takers". That is to say, they have no influence on the price of the commodity that is key to their business. Second, the price of oil is very volatile and the entire industry goes through significant, often even wild, and unexpected fluctuations. Third, producers operate with very long investment cycles. These are measured in years and sometimes decades. Fourth, they are usually using debt, and often very significant debt. Fifth, regulatory pressures and interventions in the sector are not so much risks as they are certainties. Sixth, managements in this sector are more prone to making mistakes in asset allocation.

For these reasons, when selecting investments, we prefer companies that are already profitable and have immediate – and not distant-future – high free cash flow. Companies that have low debt, long-term existing

reserves, low operating costs and capital expenditures, efficient capital allocation, and that operate in stable jurisdictions.

We very roughly divide oil-producing companies into four groups. The first consists of the so-called National Oil Companies (NOCs). These include Saudi Aramco (KSA), KPC (Kuwait), NIOC (Iran), CNPC (China), ADNIC (UAE), and Pemex (Mexico). These companies are large, with the six together accounting for almost a quarter of world production. With the exception of Saudi Aramco's smaller proportion of shares that are stock exchange traded, these are private companies and therefore not interesting from an investment point of view. The second group consists of the so-called International Oil Companies (Rosneft, Shell, Chevron, TotalEnergies, Marathon Petroleum, BP, and Petrobras). Some of these are larger than even the NOCs and together they produce almost as much as do all the NOCs. They are traded on the stock market, but we prefer to avoid investing in them. They are too big, often spread across the globe, have quite high exploration costs, and, above all, due to their positions, they are the first in line when it comes to applying political pressure.

The third group consists of the so-called Junior Oil Companies. These companies are relatively small, often still in the pre-production phase, and investing in them is too risky for us. What remains is the fourth group, and this is the group where our greatest interest lies and from which we select our investments. These are North American drillers, big ones, highly profitable ones, but not the very biggest ones. I would include companies like EOG Resources, Occidental Petroleum, Marathon Oil, Suncor, Canadian Natural Resources, and Cenovus Energy. In our opinion, they meet all of our required conditions as described above.

Of course, in order to make an investment into an oil company, we still need to see if its share price is attractive enough. We prefer what are known as implied valuations. This means that we strive to calculate what is the future price of oil implicitly embodied` in the share price. Currently, we find that the share prices for some oil companies implicitly assume a longer-term decline in the oil price not only from current levels but sometimes even below that reflected in the forward curve, which is itself in backwardation. Such valuations do not seem justifiable to us, which is why, despite our many reservations about the sector, we have decided to reinvest here this year.

Daniel Gladiš, December 2022

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