

## Noble Group, a Repeat of Enron

### Second Report: Fair values and Operating Cash Flows

Report date: February 25, 2015

Noble Group Ltd	Rating: (BBB-/Baa3)
Industry: Commodities trading	
Founded: 1986. Headquartered in Hong Kong.	Listed in Singapore (SGX:N21)
	Market cap: S\$7.14b (US\$5.25b) as of close February 24, 2015
Revenue 9M 2014: \$65b	Stock price: S\$1.06 as of close February 24, 2015
Net profit 9M 2014: \$374m	
Operating cash outflows 9M 2014: (\$620m)	
Equity: \$5.6b	<b>Price target: S\$0.12</b>

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**Summary of findings:**

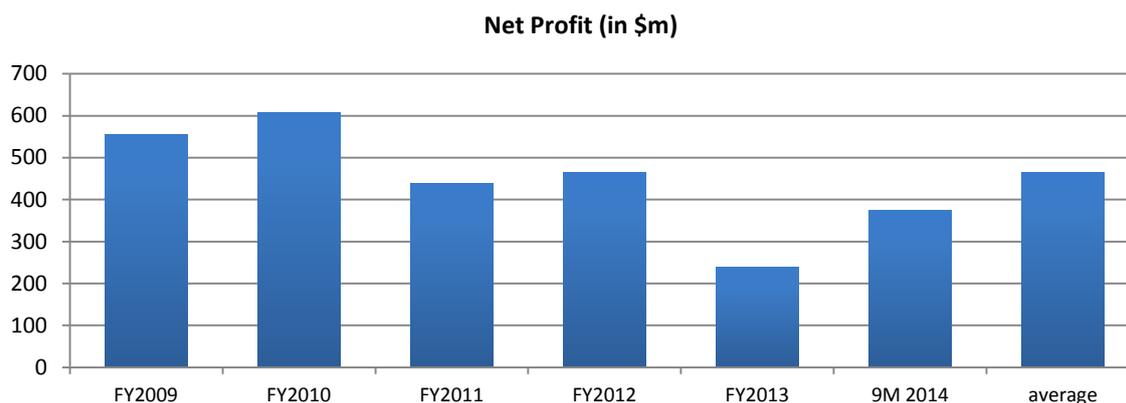
- The divergence between Noble's net profit and operating cash flows ("OCF") is striking given its status as an investment grade company. Noble has recorded a combined \$2.7b net profit since 2009. However, its operations have lost \$485m in cash in the same period. OCF have continued to deteriorate since 2011, e.g. (\$620m) outflows in 9M 2014.
- We believe the OCF would have been even worse without the help of inventories repos.
- The reason for the divergence between the paper profit and the OCF is the remarkable increase in the fair values of unrealised commodities contracts (or "mark-to-market"). These contracts surged from near zero in 2009 to an unprecedented net \$3.8b (\$5.8b assets and \$2b liabilities).
- The level of Noble's fair values has become incredible. They now dwarf all of their competitors (e.g. Glencore). They are 3.5 times the level of Enron's contracts at its peak, eleven months prior to filing for bankruptcy.
- Similar to Enron, Noble recognises the entire profit for long maturity contracts the same day these contracts are signed.
- We explain how the valuation of commodities contracts leaves ample room for manipulation. The auditor's opinion on the fair values listed in the annual report is as realistic as its opinion on Yancoal.
- There is very little information provided by Noble on these fair values. We uncovered a few examples of suspicious situations.
- We analysed Noble's OCF and working capital over the past few years in depth. The group has been largely unable to realise the MTM that matured during that period. Based on this analysis, we believe that at least \$3.8b in fair values are overstated and should be impaired. Impairing these fair values dramatically impacts Noble's performance indicators.
- Like Enron, Noble is now engaged in a vicious cycle: the group needs to constantly print more mark-to-markets to achieve any return on equity targets. There will be no miraculous recovery for Noble: the market will progressively realise that its fair values are largely fabricated.

## 1. Noble's profit is based on ever-increasing paper commodity contracts fair values

*"Start with a pretty straightforward question: How exactly does Enron make its money?"*

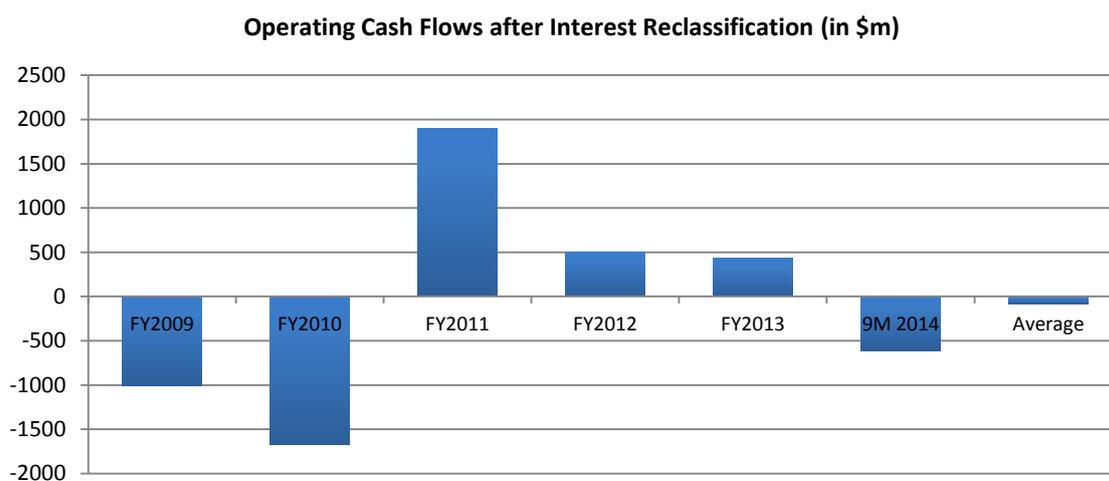
Is Enron Overpriced?, By Bethany McLean, Fortune Magazine, March 5<sup>th</sup>, 2001

Noble Group, one of the world's largest commodity trading houses with revenue of \$98b in 2013, has recorded a combined \$2.7b in net profit since 2009, on average \$466m per year.



Source: Noble Group

However, if we take the operating cash flow numbers reported by Noble and simply deduct interest expenses (as most companies do), the group has recorded (\$485m) operating cash outflows since 2009. This is an average of (\$84m) a year. Since 2011, OCF have continued to plunge, reaching (\$620m) in the first nine months of 2014.



Source: Noble Group data

As we will see, the real operational performance of Noble was certainly worse than that, particularly in 2011. However, the divergence is wide enough for us to ask the same question as the journalist Bethany McLean: “How exactly does [Noble] make its money?” She asked this question after noticing that nobody seemed to be quite clear on how Enron, a star company at that time, was making money. Investment grade companies are expected to generate steady cash flows to remunerate their shareholders and repay their debt. Something Noble is clearly unable to do.

In every quarterly investor conference call, Noble’s management has attributed the performance to events affecting the group in that quarter: increased volatility, seasonal factors, weather impact, geographic diversification, etc. In turn, equity analysts are able to use these events to explain the upward and downward trends in Noble’s performance.

Analysts often try to understand what is behind the variations in performance of a division. For example, the operating income from supply chains of the Metals-Minerals-Ores segment (“MMO”) surged from \$15m in Q1 2013 to \$70m in Q1 2014.<sup>1</sup> The CEO, Yusuf Alireza, generally does not want to offer information on these variations: “From a quarter-to-quarter basis, I think trying to over-analyse the breakdown between tonnage and revenue versus net income is very, very difficult and really not very insightful.”<sup>2</sup>

What Noble never explains clearly and what many analysts overlook is that the group’s profitability is not driven by physical transactions performed within that quarter (for example, coal cargoes moved in that three-month period). It is mostly driven by variations in the fair values of unrealised contracts. This is the reason for the divergence between paper profit and operating cash flows.

Below, in blue, are the contracts for which Noble is in the money, i.e. the fair values gains. They are an asset on the balance sheet. They now reach a huge \$5.8b, or 103% of the group’s equity. Another term used for fair value gains is positive “mark-to-market” (“MTM”).

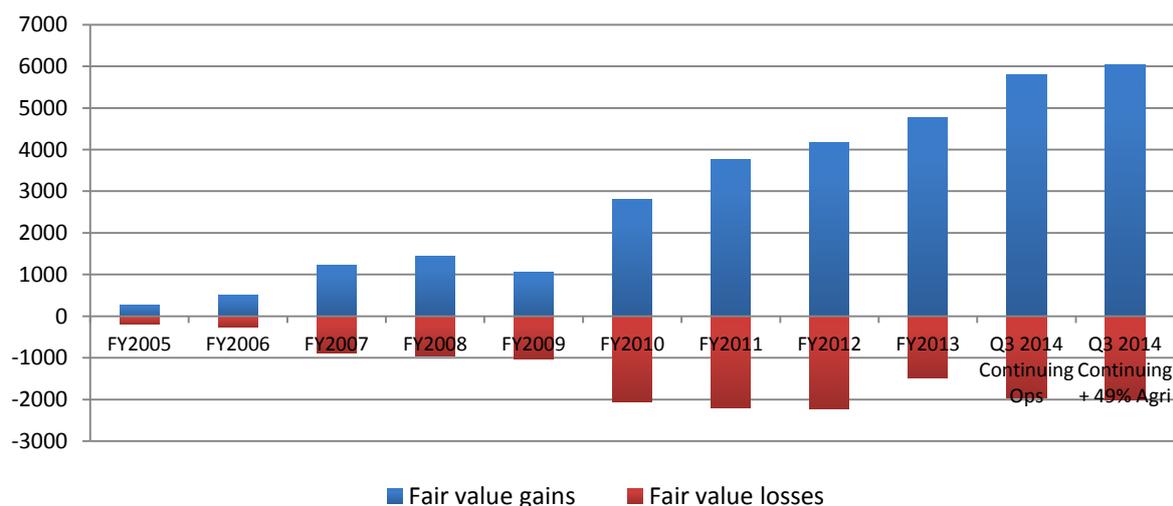
In red, are the contracts for which Noble is out of the money, the fair value losses or “negative MTM”. They have been relatively stable around (\$2b), and on the balance sheet they show as liabilities.

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<sup>1</sup> Management’s Discussion and Analysis Q1 2014

<sup>2</sup> Transcript Earnings conference call Q1 2014

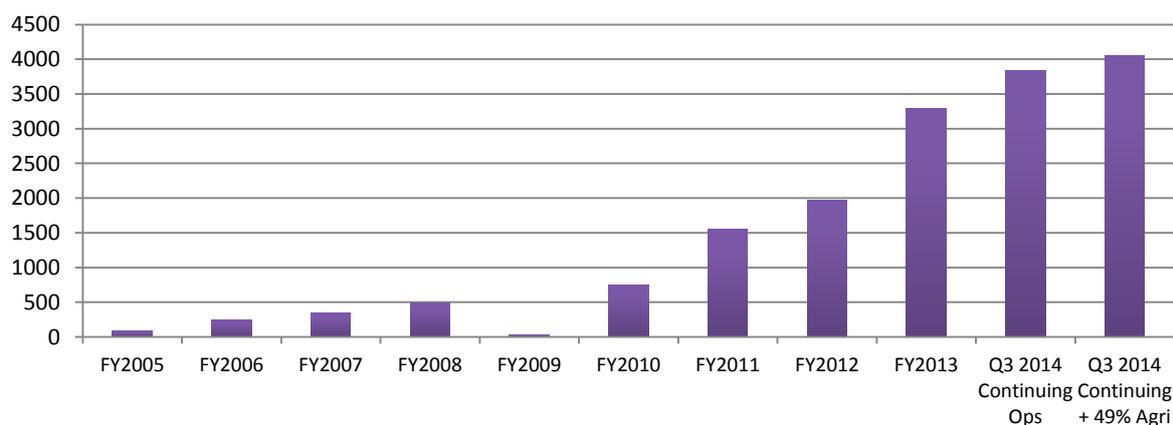
## Fair Value Gains and Losses (in \$m)



Source: Noble Group data. Estimates for 49% Agri.

By netting assets and liabilities, we obtain the net fair values or “net MTM”.

## Net Fair Values (in \$m)



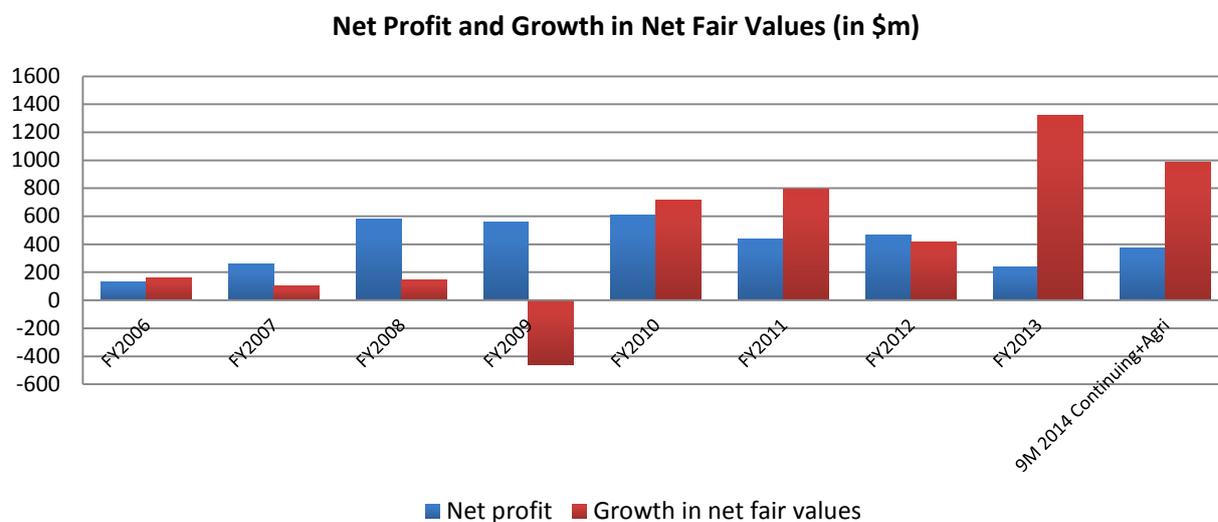
Source: Noble Group data. Estimates for 49% Agri.

Net fair values increased from near zero in 2009 to \$3.8b for Continuing operations alone in Q3 2014.<sup>3</sup> The net fair values account for 68% of equity. We also added our estimate of the fair values for the 49% stake in Agri. They are negligible compared to Continuing operations.

Variations in fair values, positive or negative, are recorded in the income statement and contribute to Noble’s bottom line. From the annual report: “Any gains or losses arising from changes in the fair

<sup>3</sup> We exclude from our numbers the small cash flow hedge portion that does not flow through the income statement. This is the reason why from time to time our fair values numbers are very slightly different from Noble’s.

value of derivatives are recorded in the income statement in the cost of sales and services in the period of change.<sup>4</sup> The profitability of Noble has been increasingly supported by an increase in fair values.

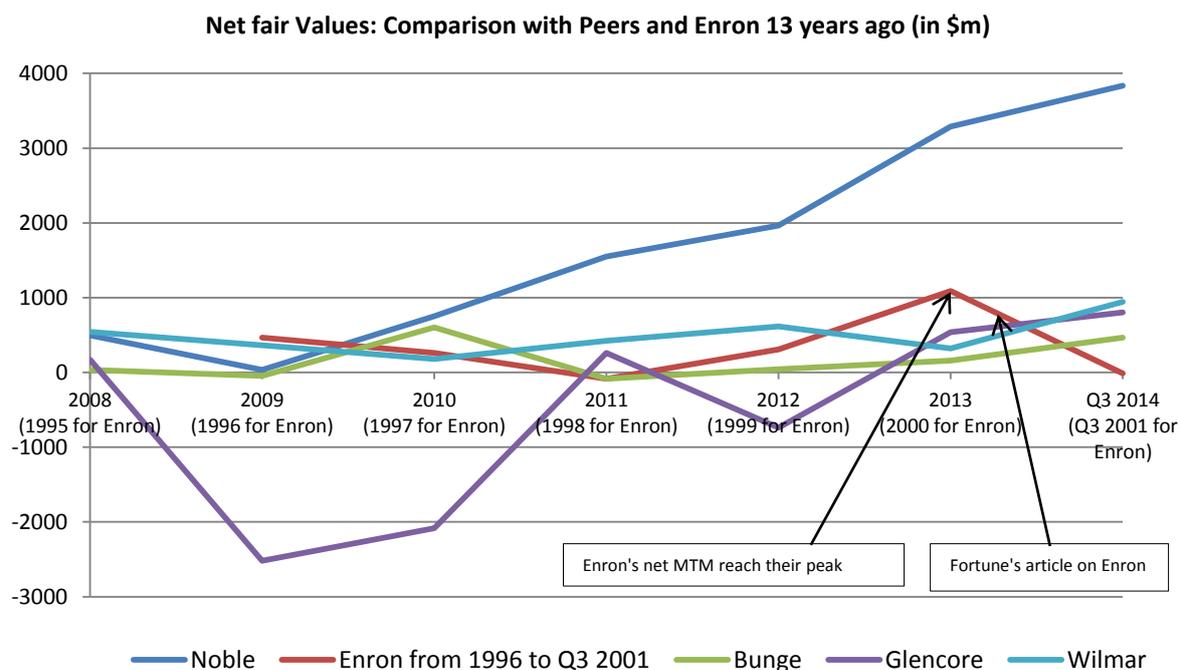


Source: Noble Group data. Estimates for Agri.

Let us be clear: there is nothing wrong with valuing unrealised commodity contracts and recording the variations in the income statement. This is what traders like Noble, Glencore, and Bunge have to do with their physical or paper contracts. Later, we give examples of fair values, and we explain the methodology used by Noble and its peers.

What is really amazing with Noble is the size and the progression of these MTM. Noble's MTM keep increasing on its balance sheet. No competitor has net MTM anywhere close to Noble's, not even Enron 13 years ago (see chart below). Enron used its MTM as its main instrument to boost its bottom line.

<sup>4</sup> AR 2013 p. 102 for derivative financial instruments and p. 104 for commodity contracts



Source: Noble Group, companies annual reports

Noble's fair values are 4.8 times bigger than Glencore's, even though Glencore has ten times the equity of Noble. They are **3.5x what Enron's were at its peak**, in December 2000, eleven months before filing for bankruptcy (2.6x in today's US\$ value).<sup>5</sup>

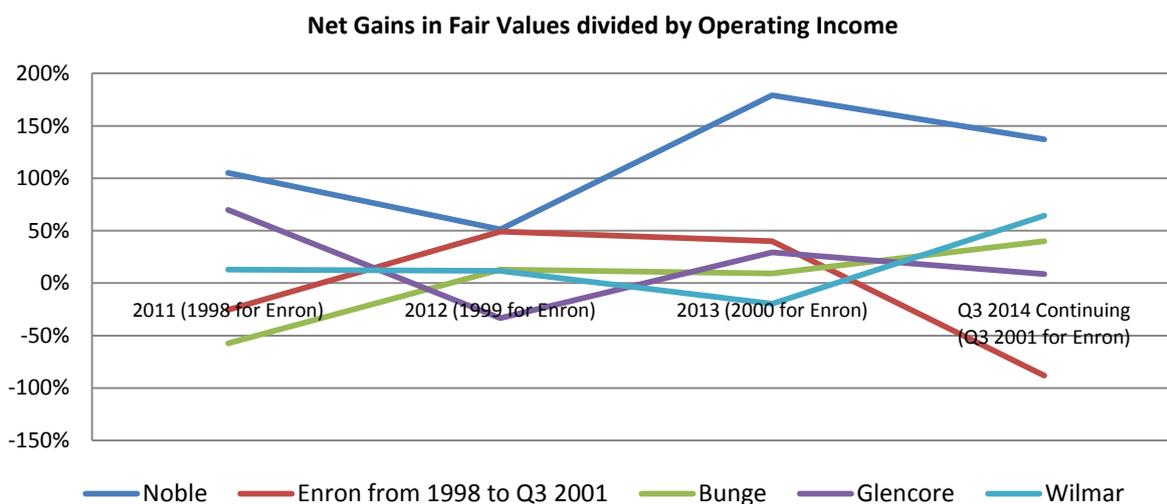
The net fair values of Noble's competitors go up and down along with commodities price volatility. They never exceed a certain level because contracts are progressively realised: cargoes are transported one by one. MTM may increase, but in the long term they always gravitate toward zero. In contrast, Noble's fair values keep surging year after year. The group seems to be struggling to convert these contracts to cash.

Interestingly, it is not because Noble came back to its previous "asset light" merchant strategy that it has more MTM. If we go back in time (2005 to 2009), Noble shows no indication of such high levels.

The fair values are almost exclusively in the Continuing operations (Energy and MMO), not in the Agri part. Continuing activities are viewed by the market as profitable, as opposed to Agri, which is now controlled 49% by Noble and loss making.

A comparison of the ratio "net fair value growth over operating income" between Noble and its competitors shows that Noble has truly become an MTM-printing machine.

<sup>5</sup> Enron's MTM were reported under "Price Risk Management Activities"



Source: Noble Group, companies annual reports, Capital IQ

The information given by Noble every quarter to explain its performance (quarter volatility, weather, etc) is useless. Instead, Noble should give information on the contribution of these MTM to the bottom line. In the case of Enron, people were unclear on how Enron was making money and they recognised the existence of unanswered questions. Noble's situation is worse because most people think they already understand how Noble makes money, when in fact they don't. We listened to many quarterly conference calls. The fair value gains/losses are a subject which is virtually never discussed, although there is nothing more important in Noble's financial statements.

## **2. The accounting treatment of fair values allows Noble to book billions in profit before any cash dollar is received, which creates a substantial risk for manipulation**

In the following paragraphs, we will explain what commodity contracts fair values (mark-to-market) are and the accounting treatment they receive. We think many people are not completely familiar with the methodology.

### **Examples of MTM**

Commodities contracts MTM are unrealised, non cash accounting gains or losses on contracts. There are roughly two categories:

#### **1) The trading MTM**

Traders buy and sell physical commodities or take paper positions on exchanges. After being signed, the value of a contract is regularly re-measured. To value a contract, a trader needs a forward curve, i.e. the future prices of a commodity as expected by the market. The contract price will be compared

to the forward price to measure the value of a contract. For example, if a few months ago, a trader signed a contract to supply 70,000 tonnes of coal at \$80 per tonne for delivery in one year, and the forward price for this delivery time is now \$70 per tonne, this contract is worth  $\$80 - \$70 = \$10$  per tonne multiplied by the number of tonnes,  $(70k) = \$700k$ . Then time discount and credit risk discount are applied to calculate the final MTM.

## 2) The MTM for offtake contracts with discounts

The important thing with these contracts is that the first day they are signed, they immediately trigger a MTM, or profit. Traders negotiate long term offtake contracts with suppliers. Often, the supplier sells a contracted quantity at a discount in exchange for financing initially provided by the trader. In the industry, these contracts are generally expressed as “index minus discount”.

Under the MTM accounting method, once a long-term contract is signed, the income is estimated as the present value of net future cash flows. The MTM method allows profit to be recognised even before service is provided. Let us say a trader signed a 25-year contract with a mine at a 3% discount. The first cargo can only be delivered in three years (the time to build the mine) and the last cargo in 28 years. However, the profit for the entire contract will be booked on day one on the income statement. Long term offtake agreements can govern the delivery of dozens of millions of tonnes. Dozens of millions of profit can be booked in 2015, even though the contract ends in 2043.

The management does not want analysts to examine financials quarter-to-quarter. We believe the reason is that these bumps in profitability actually reveal large MTM contracts that were booked during the quarter.

### Why MTM intrinsically create a risk of manipulation

The possibility of booking the profit of a 20-year offtake agreement in one day obviously creates a risk of manipulation in trading houses. Enron is the most famous case. It used MTM as an instrument to boost profitability. Arthur Andersen allowed Enron to aggressively book MTM for projects (e.g. broadband trading, energy contracts) that never materialised or dramatically under-performed. When Enron was liquidated, it was found that the MTM, not the physical assets, were the most overstated item on the balance sheet.

The valuation of commodities MTM is not a straightforward job that would leave no margin for manipulation. As mentioned, a trader needs a forward curve. For some less traded commodities, there is no available forward curve. When there is a forward curve, it generally has a maximum maturity of a few years. So how does one value contracts with a maturity of 35 years? The traders need to

“develop discretionary methods” to fill the gaps. In simple terms, they draw the forward curve themselves. Enron used tailor-made forward curves to fabricate profit.

There is another issue for physical traders. When a forward curve exists, it is for a “standard” commodity with defined specifications and chemical composition. The physical cargoes that are traded every day are almost always slightly different from this “standard”. The forward curve needs to be adjusted to the actual cargo. Again, this provides a risk of manipulation.

Finally, projections of tonnage can also be manipulated. For example, if a trader has an offtake agreement on all the future production of a miner, the temptation is to vastly overestimate this future production. If the projected production of a mine is five times what it really will be, the MTM is five times too large.

In the first report, we mentioned the case of Yancoal. Noble initially valued Yancoal based on its cash flow projections. They used a forward curve and production projections. They ended up with a valuation gap of \$660m between the carrying value and the market value in 2012. What Noble’s stakeholders need to realise is that the instruments used to value Yancoal and the instruments used to value the MTM on Noble’s balance sheet are the same: particularly forward curve and tonnage projections.

### **The auditor’s opinion**

EY is a well known auditor, so should we trust their valuation? As in the case of Yancoal, they have expressed their “reserves” in the annual report. For example, in the 2012 annual report: “The management believes that the estimated fair values resulting from the valuation technique, which are recorded in the consolidated statement of financial position, and the related changes in fair values, which are recorded in income statement, are reasonable, and that they were the most appropriate values at the end of the reporting period.”<sup>6</sup>

This warning is particularly worrisome. We are not talking of a small item on the balance sheet for which a disagreement over the valuation has little to no impact. We are not talking about Yancoal for which there is a \$600m valuation gap. We are talking about the largest component in Noble’s financials (\$5.8b for the fair value gains). The only thing that EY is able to write is that the valuation is management’s beliefs. This is remarkable.

In the 2013 annual report, the formulation of the warning was slightly more polished. The management is still responsible for the valuation: “The Group values certain of its financial

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<sup>6</sup> AR 2012 p. 154

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instruments, derivative financial instruments, commodity contracts, and long term investments, at fair value. Estimating the value of these financial instruments requires the Group to make certain estimates and assumptions, and hence the values are judgmental.”<sup>7</sup>

Auditors classify fair values in three categories. The level 3 category is supposed to be more subjective, thus easier to manipulate.

- Level 1: Directly based on quoted market/futures prices
- Level 2: Based on valuation techniques for which significant inputs are observable
- Level 3: Based on valuation technique for which one or more inputs to the fair value measurement are unobservable

The problem is that EY acknowledges in the annual report that it is its client, Noble, not EY, who decides at what level the fair values are booked: “the Group applies judgement to assess both the observability of inputs to the valuation technique applied, and the significance of the input to the overall valuation of the transaction.”<sup>8</sup> As a result, the three levels are meaningless for Noble, explaining the very large swings between levels from one year to another year.

It is very important to remember that credit agencies rely on the auditor’s numbers to issue a credit rating. Credit agencies recognise they work with the information given to them by auditors.

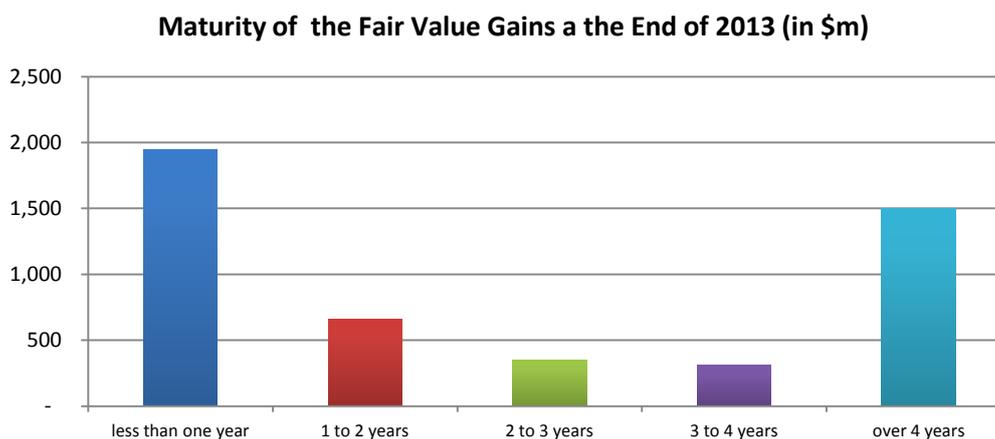
### **MTM are classified as short term assets, but a large percentage are long term**

One reason why analysts overlook the fair values is that they are not easily found on Noble’s balance sheet despite their size: the positive MTM are found under “Other receivables” in the current assets, and the negative MTM are under “Trade and other payables and accrued liabilities” in the current liabilities. Most people would understand “current assets” as assets expected to be converted to cash within twelve months. In the case of Noble, this is absolutely not the case. In FY2013 for example, 59% of the fair values gains had a maturity beyond one year. The fair value losses are generally short term (only 17% have a maturity beyond 12 months).

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<sup>7</sup> AR 2013 p. 109

<sup>8</sup> AR2013 p 158



Source: Noble Group

By contrast, 98% of Wilmar’s MTM will mature within one year. Many competitors differentiate between short term fair values and fair values over a year on their balance sheet.

Physical contracts such as long term supply contracts cannot be unwound, unlike paper hedges. For example, it is impossible to ask an Indonesian coal supplier to “pay” today for the MTM of a 5-year contract. Noble classifies long term assets in short terms assets. IFRS rules allow Noble to do so, but this is misleading.

What is remarkable about these \$5.8b MTM is, that even though they are now larger than Noble’s equity, Noble gives little information on them. A breakdown by counterparty (the companies or commodity exchanges that are on the other side of the trade) would be confidential information. However, Noble should at least give a breakdown by industry/geographic region because falling commodity prices put a lot of stress on some commodity producers. Noble’s stakeholders would certainly need to know if the group is at risk on these counterparties.

Still, we managed to find some suspicious situations that strongly suggest that something is not in order.

### 3. Some suspicious examples

#### 1) PT Alhasanie (“PT ALH”): accounting alchemy in Indonesia

PT Alhasanie is a small Indonesian coal miner. Noble acquired PT ALH for \$300K in September 2011.<sup>9</sup> Although the acquisition price was very low, the fair value of “identifiable assets and liabilities of the acquiree amounted to US\$46.8m”, mainly mining properties. The difference (US\$46.5m) “was

<sup>9</sup> AR 2012 p.120

credited to the income statement.” We wonder how a company acquired for only \$300K can be valued \$46.5m, and this is only the beginning.

Noble subsequently “revised the off-take agreement between PT ALH and one of the Group’s subsidiaries, following which the net asset value of PT ALH was reduced to US\$2,080,000.” In September 2012, Noble sold PT ALH to a certain “PT Dayana Lestari” at a total cash consideration of US\$4m. Finally, a few months later, PT Dayana Lestari sold PT ALH to PT Atlas. PT Atlas, which we already mentioned in our first report, is a listed Indonesian coal miner. It is also an associate of Noble that controls 10% of PT Atlas.

We believe Noble created profit out of thin air. First, PT ALH was valued artificially high, then Noble booked a large MTM in its favour, and brought the value of PT ALH back to \$4m. However, Noble is not allowed to record MTM with a subsidiary. PT ALH was ultimately sold to an associate of Noble, PT Atlas. We believe the intermediary company (PT Dayana Lestari), which has no substance, was used to mask the sale of PT ALH to an associate related to Noble.

## **2) Sundance Resources: no mine, no financing, no production, but a gigantic contract**

In March 2014, Noble announced that they had signed an offtake contract with Australia’s Sundance Resources for 50% to 100% of the gigantic ten-year 35 million tonnes per annum production of iron ore mines in Africa.<sup>10</sup>

As we already mentioned, a few days later, the operating income from supply chains of the MMO segment jumped to \$70m from \$15m one year earlier. The CEO underlined that it was “not very insightful” to analyse quarter-to-quarter. We believe that Noble booked a very large MTM for this Sundance Resources contract. This would explain the remarkably good performance this quarter.

However, what is Sundance Resources? It is an Australian listed company promoting two ambitious iron ore projects in the Republic of Congo and Cameroon. The mines, the 510km railway to the coast, and the port terminal have not been built. They are not financed either. The phase 1 of the project requires \$4.7b.<sup>11</sup> If financed, the company expects the first ore to be exported in 2019.<sup>12</sup> The Iron ore price falling below \$70 per tonne seriously complicates the financing of an already very challenging plan. Sundance Resources struggles to find financing and had to request the Cameroon government to postpone the deadline for obtaining financing until June 2015. Sundance’s cash balance was A\$30.5m as at 31 December 2014. The company spent A\$13.9m in the last quarter of 2014.<sup>13</sup>

<sup>10</sup> Sundance Resources ASX announcement 25 March 2014

<sup>11</sup> Sundance Resources Presentation 27 June 2014

<sup>12</sup> Sundance Resources Presentation 3 September 2014

<sup>13</sup> Quarterly report Sundance Resources 31 December 2014

At this stage, Sundance Resources is a very speculative project that only exists on paper. Booking a MTM for ten years of production from 2019 to 2029, as we suspect Noble did, would be particularly aggressive.

### **3) The surreal immunity of Noble's MTM to falling coal prices**

Noble has often presented its coal department as a success story built on long term offtake contracts with suppliers. Large physical traders regularly finance weak miners that struggle to obtain bank financing and, in exchange, get discounts on future cargoes.

However, there are risks with this type of contracts when commodities prices fall:

- In the industry, discounts are usually expressed as a percentage of the index (e.g. index minus 3%). This means that when commodity prices are low, the cash profit will also fall. Coal prices collapsed from \$140 per tonne in 2011 to \$62 per tonne, near five-year lows. Coking coal plummeted from \$330 per tonne in 2011 to \$120 per tonne.
- Forward prices fell, which should definitely impact Noble's MTM.
- Low coal or iron ore prices put pressure on miners, substantially increasing their performance risk. For instance, Western Desert Resources, with which Noble had an offtake agreement, filed for bankruptcy in 2014.

Despite these industry headwinds which forced many commodities groups to book heavy impairments (Glencore booked not less than \$7b impairments after its acquisition of Xstrata), Noble seems to have perfectly weathered the storm. The MTM did not fall, they skyrocketed. Noble's immunity to the challenges of the coal and iron ore markets is astonishing.

### **4) Noble's offtake contracts with its associates**

We mentioned the associates in the first report. Noble pre-finances and recapitalises its associates. Against the financing, they obtain offtake contracts at a discount. MTM and profit are recorded on day one.

Some associates have been at the exploration stage for years and struggle to reach the next level. Sometimes, contracts are signed even though a project is not yet financed, as in the case of Cockatoo Coal. Noble obtained the marketing rights for the expansion of the Baralaba mine.<sup>14</sup> The expansion was not yet financed. Recently, Cockatoo Coal faced a critical liquidity crisis. Noble along with two

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<sup>14</sup> MD&A Q3 2013 p.10

other investors had to participate in equity raising to finance the Baralaba mine. We can assume that the reason Noble had to save Cockatoo Coal is that they had already recorded the whole MTM.

Contracts with associates can be massive. For example, Noble has contracts totalling 90 million tonnes with Resource Generation, a future coal miner in South Africa, with a long maximum maturity of 35 years.<sup>15</sup> Resource Generation is a credible project (more than Sundance Resources in our opinion) but the company still seeks \$400m financing to complete construction. What is amazing is the sheer size of the offtake contracts and the 35-year maturity.

#### **4. A detailed cash flow analysis shows that Noble's MTM are largely overstated and the group increasingly struggles to hide its operating cash outflows**

How serious is the problem of the valuation of the MTM? Are the MTM slightly overstated here and there? Or are we facing a situation comparable to Enron or worse? At this stage, we showed there were reasons for concern and that the MTM were fundamentally a black box. Noble will probably respond: "This is done in accordance with IFRS. The valuation of our MTM is audited by EY." The company used the same argument for Yancoal.

Note that Iceberg Research does not claim that Noble is performing outright accounting fraud. We think Noble stretches the accounting rules to the maximum, with the complicity of its auditor, EY. The \$600m valuation gap for Yancoal is not a fraud. It is "just" an extreme interpretation of the IFRS rules. Enron was very similar. It is common to read that Enron was a fraud. In reality, what characterised Enron was a very intelligent exploitation of all accounting rules. This was done with the complicity of the auditor, Arthur Andersen.

Nevertheless, investors are not interested in the intricacies of IFRS. They want a reliable picture of the companies they invest in. Iceberg will never have access to the breakdown of the MTM. We strongly believe that shareholders, banks, bond holders, suppliers, etc. who have billions of risk on Noble, as well as credit agencies, should knock on the door of Noble until they get information on the counterparties behind the MTM, at least the largest ones. They should also obtain information on the assumptions behind the MTM numbers. If shareholders do not obtain this information from Noble's management (who, let us remember, works for them), they should be able to reach their own conclusions.

To estimate how serious the question of the MTM is, we conducted an in depth analysis of Noble's operating cash flows. We discuss the role played by working capital. Then, we measured the ability of

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<sup>15</sup> Resource Generation quarterly report p. 3, <http://clients.weblink.com.au/clients/ResourceGeneration/article.asp?asx=RES&view=2839166>

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Noble to convert its fair values in the past. We reach the conclusion that Noble's MTM have been largely overstated.

### **Noble's very poor cash flow generation**

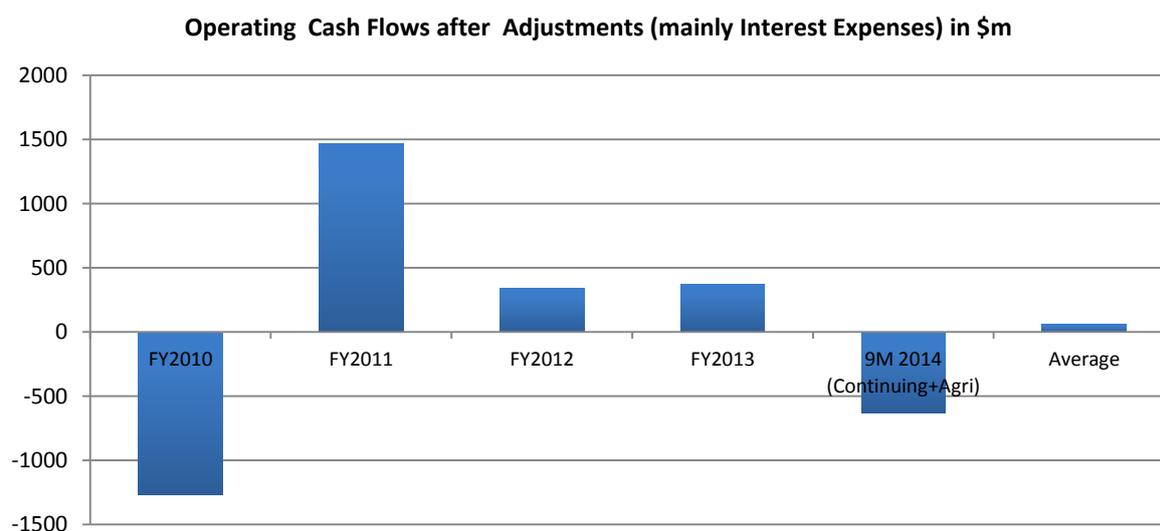
First question: how much are operating cash flows exactly? There are two necessary adjustments with Noble's numbers.

- 1) **Interest expenses.** Noble pushes the interest expenses to the financing cash flows. IFRS accounting rules allow this flexibility, but most companies record interest expenses in the operating cash flows. Interest expenses are a non discretionary cost supporting operations. Companies do not control them. Naturally, Noble reports interest income, unlike interest expenses, in its operating cash flows. This is the largest adjustment (\$1.8b since 2010, on average \$376m per year).
- 2) **“Cash balances with futures brokers not immediately available for use in the business operations.”** This adjustment is smaller. To mitigate the counterparty risk, traders can be asked by exchanges or by OTC counterparties to post collateral when they are out of the money on their contracts. This collateral can be in the form of cash or in the form of standby letters of credit (“SBLC”) issued by banks.<sup>16</sup> Noble very elegantly calls this collateral “cash balances with futures brokers not immediately available for use in the business operations”. They reduced it by a total of \$246m since 2010, on average \$52m per year. On the other hand, negative fair values have remained stable on the balance sheet since 2010 and Noble's credit rating has remained unchanged. This cash inflow is not driven by the operating performance. It is just replacement of cash by SBLC, an off balance sheet liability.

After these two adjustments, we obtain the following operating cash flows.

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<sup>16</sup> AR 2013 p.133



Source: Noble Group data

On average, Noble has generated only \$60m OCF every year since 2010. This is only 13% of its net profit. If we take Noble's net financial debt numbers after the group received the shareholder loan/sale proceeds from the Agri transaction and paid an exceptional dividend, at this rate and without any CAPEX (maintenance or investment), it would take 38 years for Noble to repay its net financial debt. This is not the kind of numbers expected for an investment grade group. In our third report, we will also explain that Noble misrepresents its true level of debt.

Note that we started our analysis in 2010 but we could have started in 2009 and the results would have been worse: Noble has recorded operating cash outflows of (\$96m) on average after adjustment since 2009. Noble's operations have bled cash since 2009, again a very disturbing fact for an investment grade group.

### **How credit agencies analyse Noble's cash generation**

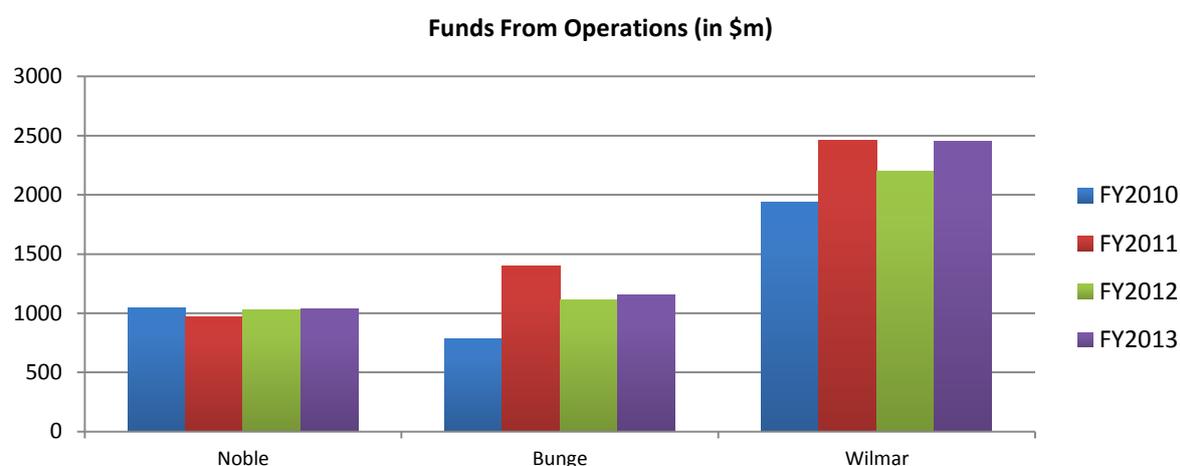
If Noble's OCF are so poor, why haven't credit agencies already remarked on it? Noble is still granted an investment grade rating.

The two main performance metrics used by credit agencies are EBITDA and Funds from Operations ("FFO") which is the top line in the cash flow statements (cash flows before working capital). Moody's uses a concept close to FFO: Retained Cash Flow ("RCF") which is FFO less dividends.

Credit agencies focus much less on the "final" operating cash flows (i.e. after working capital) because this line can be temporarily influenced by commodity price fluctuations. For example, high commodities prices can put pressure on the working capital of some traders. It would not be fair to estimate a company's cash flows without taking this into account. The concern is legitimate, but the

problem is that in the cash flow statements, the MTM are deducted only at working capital level. Noble treats a 7-day receivable and a MTM for a cargo delivered in 35 years in the same manner in its cash flow statements. As surprising as it sounds, the consequence is that when credit agencies use an instrument that is supposed to reliably measure the cash generation of Noble (the FFO), they end up measuring its MTM generation.

Now if we take the “FFO” or “operating profit before working capital” as Noble calls them in its cash flow statements, and compare them to competitors, the stability of Noble is quite remarkable considering the high volatility of the commodity industry.<sup>17</sup>



Source: Noble Group, Annual reports

Either Noble has invented a business model that allows them to sail through the volatility perfectly compared to its peers, or it is a remarkable statistical exception, or Noble knows that the FFO are the numbers in the cash flow statements on which credit agencies focus their attention. We need to analyse the cash flows in depth to determine whether Noble engineers its FFO.

We have also found very frequent restatements of fair values numbers quarter-to-quarter by reconciling cash flow numbers and balance sheet numbers. Noble does not provide the balance sheet numbers for the previous quarter, only the beginning of the year. We believe their objective is to hide these restatements.

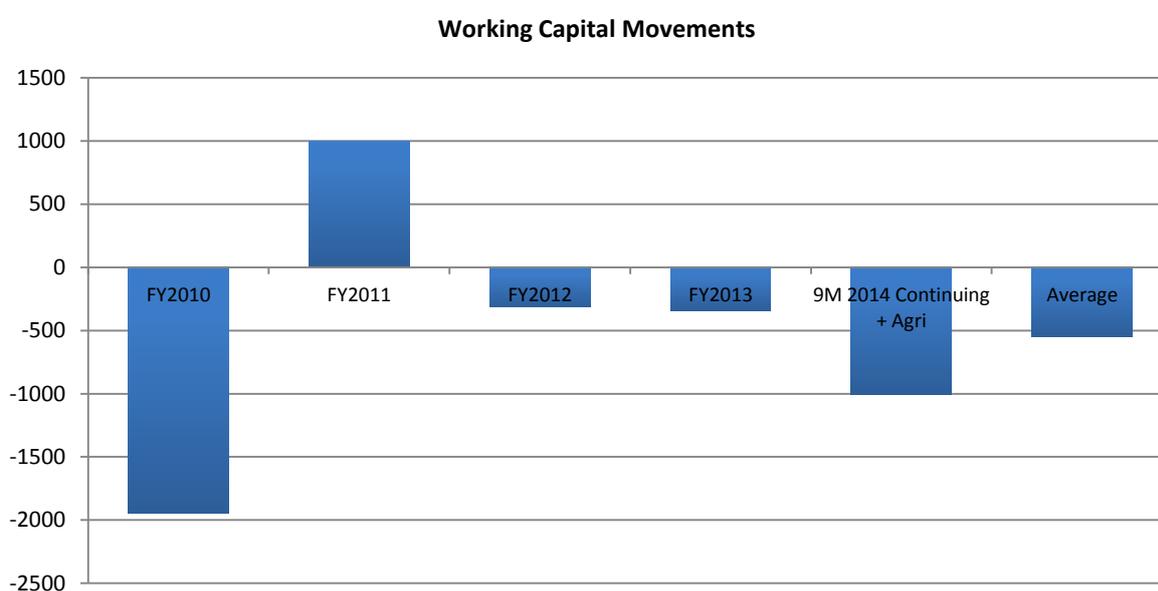
### **The two components of working capital**

Analysing the working capital of Noble may seem an obscure exercise, and not a very exciting subject. Yet, it is crucial for a trading house, more than for other industries. A fascinating aspect about Enron is how it managed to survive so long and hide the true level of its OCF. Enron knew that credit

<sup>17</sup> We have not included Glencore as the FFO changed dramatically with the merger with Xstrata.

agencies were focused on bank/capital market debt. Credit agencies are much less focused on commercial liabilities. So Enron tried to stretch its working capital to boost its cash flows. For instance, in 2000, Enron delayed the inevitable thanks to a \$4.2b increase in Customer's deposits.<sup>18</sup> The problem with this source of liquidity is that is very volatile. Suppliers can withdraw their credit and customers can withdraw their deposits even faster than banks. When doubts surfaced on Enron, this credit evaporated, which precipitated the liquidity crisis.

What is incontestable, looking at Noble's poor performance, is that working capital is the reason why Noble struggles to generate cash. The cash seems to be "stuck" there. Not less than \$2.6b was "consumed" by working capital, on average a hefty \$550m per year.



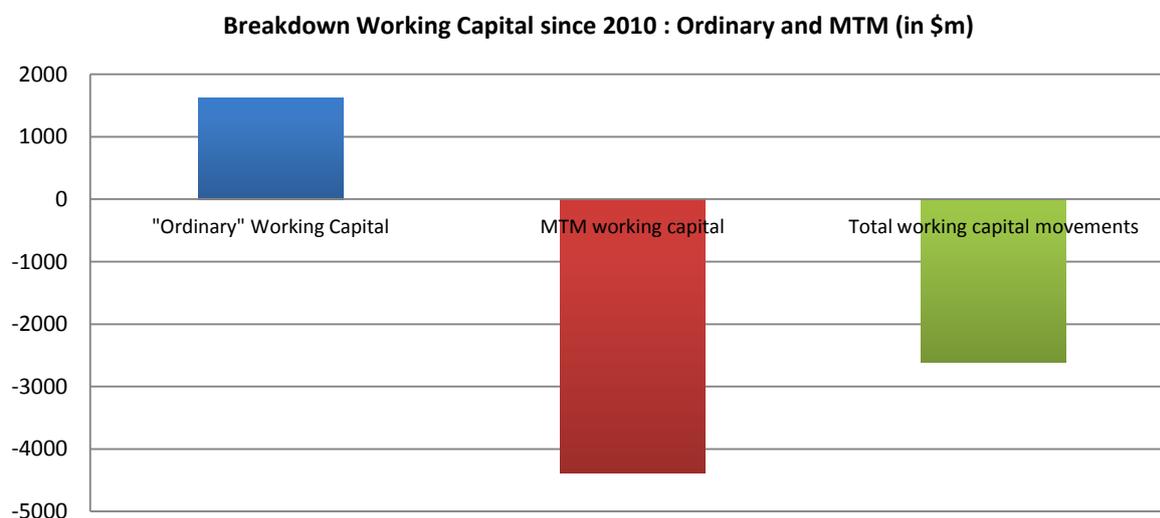
Source: Noble Group

There are two components in Noble's working capital. On one hand, the usual items that can be found in any company: receivables, payables, inventories, prepayments, and deposits. On the other hand, the MTM.

If Noble published a breakdown of its working capital movements in its cash flows statements, we would immediately see which part of the working capital is plaguing Noble's cash generation. For example, are its receivables progressing faster than payables, which is a common pattern in fast growing companies, or it is because of the MTM? Noble smartly agglomerates the items in the cash flow statements. This makes the direct analysis more difficult.

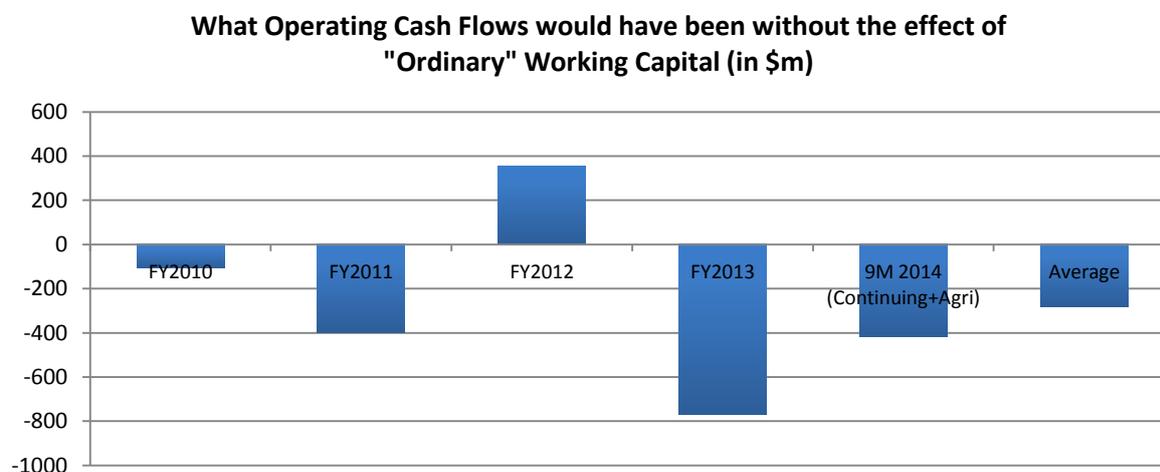
<sup>18</sup> Enron AR 2000 p.33

So we isolated each component based on the balance sheet numbers to reconstitute a more complete cash flow statement. We adjusted for changes in perimeter when this had a substantial impact. Then we separated the working capital movements in two categories. On one side, what we call “**MTM working capital**”. On the other side, all the other movements (receivables, inventories, payables, etc); what we call “**Ordinary working capital**”.



Source: Noble Group balance sheet and cash flows data – estimates for Agri in 2014 - adjusted for NAES acquisition in 2010

We can see that what plagued Noble’s working capital is definitely the MTM. This finding was expected. However, the really interesting finding is that Noble somehow managed to squeeze a large amount of cash (\$1.6b) from its “ordinary” working capital. This is surprising because Noble’s turnover grew very fast (from \$57b in 2010 to \$98b in 2013). We would have expected the opposite. Without this positive effect, cash outflows would have been absolutely terrible: (\$282m) on average per year.



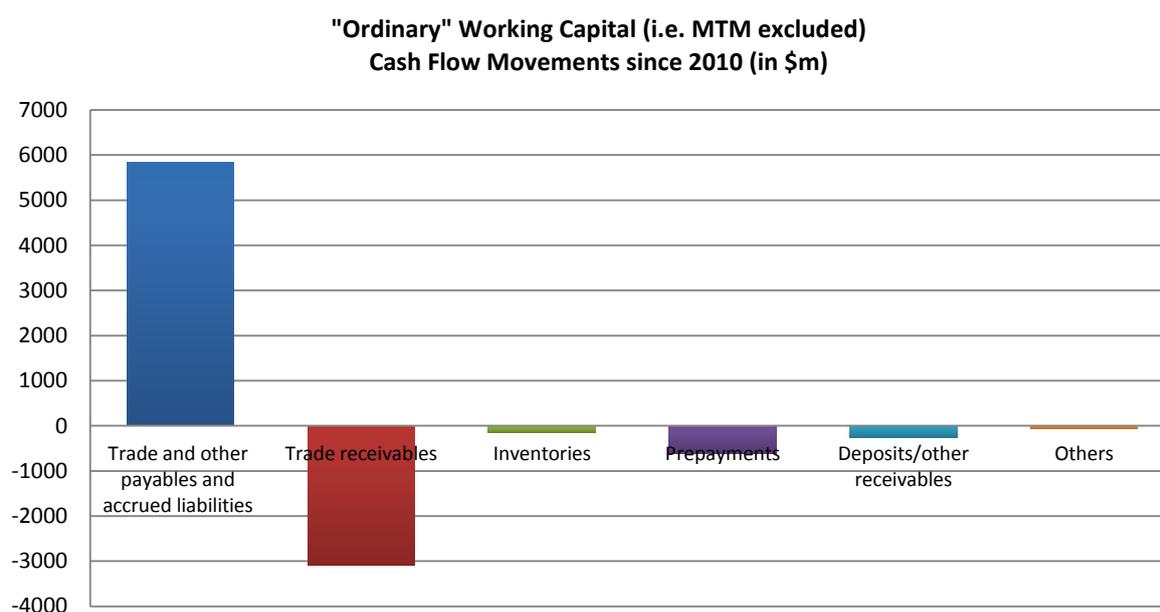
Source: Noble Group balance sheet and cash flows data – estimates for Agri in 2014 - adjusted for NAES acquisition in 2010

The two questions we will try to answer are:

- 1) How did Noble manage to reduce its ordinary working capital, which seems unusual? And can the effect be reversed?
- 2) The key question is will these gigantic fair values be realised one day?

### The role of inventories repos in Noble's operating cash flows

Here is a breakdown of the ordinary working capital since 2010. We include Continuing and Agri to make the comparison relevant over time.



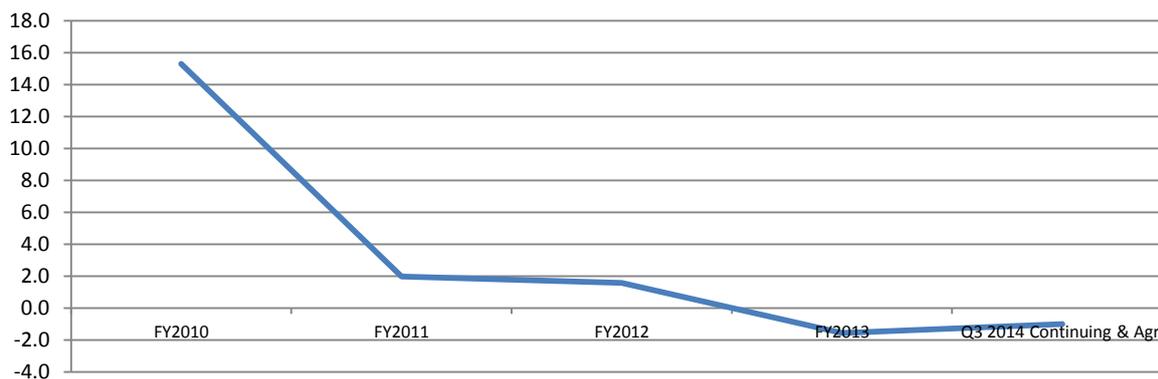
Source: Noble Group balance sheet and cash flows data – estimates for Agri in 2014 - adjusted for NAES acquisition in 2010

### Inventories

The most remarkable component is the inventories. They decreased by \$125m while turnover grew by 228%. Inventories days fell by 13 days from 26 days to 13 days.<sup>19</sup> The decline in inventories allowed a reduction in days working capital (receivables plus inventories minus payables) from 15 days to (1) day.

<sup>19</sup> Noble publishes numbers that can be different but the declining trend of days working capital is very similar. Our numbers are directly based on the balance sheet data and some estimates for Agri in 2014. Capital IQ numbers cannot be used because they combine fair values gains with trade receivables, and fair values losses with trade payables.

## Days Working Capital



Source: Noble Group income statement and balance sheet– estimates for Agri in 2014

This may not seem a lot, but for a \$98b revenue company, a single day has a huge liquidity impact. For example, if receivables are paid one day earlier, this means a cash inflow of \$268m. If inventories days are reduced by one day, this means an inflow of \$264m.

We see three reasons for this reduction in inventories in relation to revenue:

- The development of commodities that do not have inventories (e.g. electricity)
- Lower commodities prices in Q3 2014
- We believe the third reason is that Noble is engaged in heavy repos of its inventories at financial reporting date.

Under a repo, a trader sells commodity inventories to a bank and buys back the inventories at a later date. In the third report, we will explain that Noble always pays too much interest for the level of debt it reports. We believe that inventories disappear at quarter end and this is a major reason behind the unexplained level of interest.

Repos were discreetly alluded to in the annual report for the first time in 2011.<sup>20</sup> That same year, physical inventories fell by 28%, and inventories days were reduced by 13 days. It was in 2011 that the credit rating of Noble was on negative watch.

Our problem with repos is not so much that they artificially reduce the debt level at quarter end. The real issue is that they distort operating cash flows by creating an artificial source of liquidity. OCF are supposed to be the most difficult part of the financials to manipulate. At the end of the day, nothing is more important than operating cash flows. If even the most reliable part of the financials is “engineered”, it becomes very difficult to read the financials of a company.

<sup>20</sup> AR 2011 p.104 under “Supply of agricultural, industrial and energy products”

The problem with repos is that they just buy time. They do not fix the issues:

- 1) The positive liquidity effect reverses as soon as repos are interrupted: the inventories go back to the balance sheet and negatively affects the operating cash flows. A trader that starts repos will have to repeat them all the time unless its OCF recover.
- 2) If OCF remain poor, the trader has to repo more and more of its inventories to mask it. However, this process is not limitless. Not all commodities are acceptable by banks for repo. Typically the perishable or bulky commodities are less commonly accepted.

How sustainable is this working capital management? We think Noble will increasingly struggle to stretch its working capital further. The stabilisation trend of the days working capital shown above suggests the same. That means that in the future, the true operating performance of Noble will be more difficult to hide. We think this largely explains the very poor operating cash flows in 9M 2014 (\$620m outflows after adjustments).

### **Payables**

Payables also allowed Noble to squeeze liquidity from its ordinary working capital. Payables days increased from 24 days in 2010 to 30 days in Q3 2014 (Continuing+Agri),<sup>21</sup> faster than receivables (from 13 days to 15 days). We wonder if these payables are really only regular payables. For example, the larger share of the \$6.7b payables group in Continuing activities are usual suppliers payables (\$5.5b). The rest is called “other payables and accrued liabilities” (\$1.2b). The annual report mentions that only the first category (trade payables) is non interest bearing.<sup>22</sup> This implies that part of the \$1.2b “other payables and accrued liabilities” is interest bearing. This is unusual for payables. We suspect that it is a form of financing. For example, brokers finance the initial margins of Noble. This financing is mentioned in the annual report,<sup>23</sup> but how much is owed to the brokers does not show anywhere in the liabilities.

### **A historical analysis shows that Noble’s MTM are largely overstated**

Noble’s net MTM have reached a level that no physical trader, to our knowledge, not even Enron, has ever reached. Noble will argue its huge net MTM will become cash. The problem will fix itself. There are many issues in Noble’s financials but none is more important than the MTM. Are they overstated and by how much?

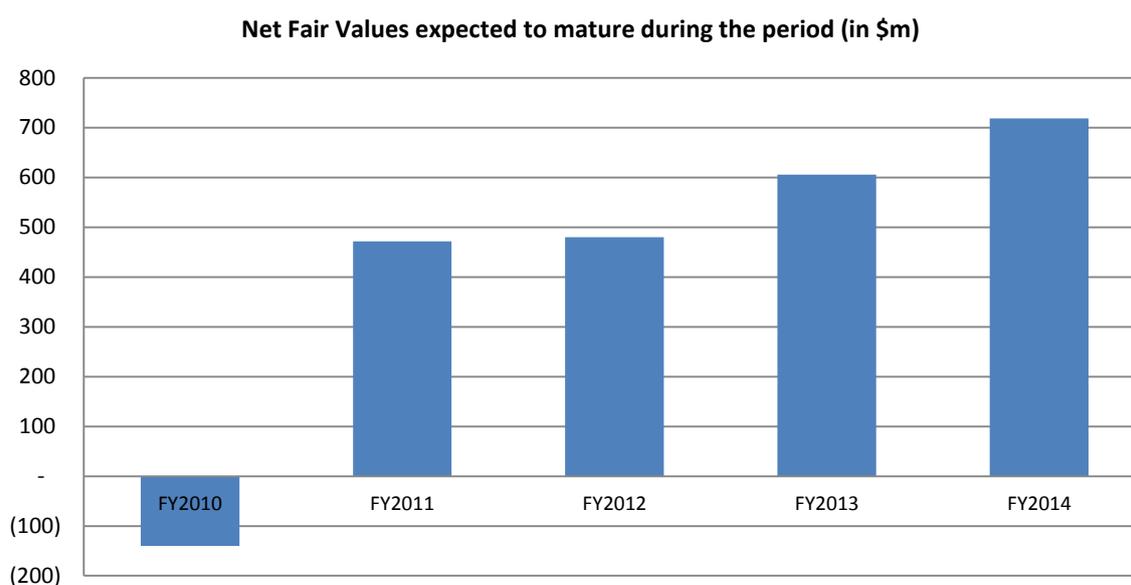
<sup>21</sup> Noble restated its calculation of payables days in 2011 and probably changed its calculation methodology from that year, excluding some payables. Our numbers are directly derived from Noble’s data.

<sup>22</sup> AR 2013 p.135

<sup>23</sup> AR 2013 p. 103 “The group can also use credit facilities granted by these brokers or standby letters of credit to meet these requirements in lieu of cash. Accordingly, the group regards this cash as part of its liquid cash that is used in its daily cash management.”

If the fair values had started to grow six months ago, there would probably be no way to answer this question. However, the trend started in 2010. Some MTM had already matured. So we can go back in time, check the maturity breakdown, isolate the MTM that were supposed to mature during the year, and see how Noble successfully converted them to cash.

Every year, the annual report of Noble gives us a maturity of the MTM.<sup>24</sup> The chart below shows the net MTM that were expected to mature during the periods.



Source: Noble Group

For example as of December 31<sup>st</sup>, 2013, \$719m MTM was expected to be converted to cash in 2014.

Since January 2010, \$2.1b MTM was supposed to mature, on average \$427m per year. This is a very comfortable situation. Positive MTM are expected to trigger a cash inflow in the next twelve months. Negative MTM are expected to trigger a cash outflow in the next twelve months. The actual amount may vary (higher or lower) with commodities prices during the year. However, the diversification in a basket of commodities and the comfortable position every year mean that Noble should receive a very high level of cash.

So where did the cash go? Nowhere. As we saw Noble's cash generation was very poor. It would have been even worse without the repos, that we believed Noble used. Noble's MTM underperformed because their valuation was vastly overstated. We think Noble has failed to realise a large share of its MTM every year. Instead of realising them, the company accumulates them in its balance sheet.

<sup>24</sup> For example for 2013: AR Financial Instruments p. 155

The losses caused by Agri's fixed assets do not explain the discrepancy. Agri's performance was much better prior to 2012. In 2013, losses were largely driven by non cash amortisation and depreciation of \$187m.<sup>25</sup> Noble Agri is heavily loss making but its cash flow generation is better, as we will see below.

Noble's MTM conversion is actually so bad that we believe Noble started the year with a negative position in most cases. We suspect that not only the positive MTM were overstated, but some trading future losses were underestimated. This is worrisome because Noble may still have some undervalued future trading losses on its balance sheet.

Noble has showed its inability to convert its \$2.1b net fair value position since 2010. \$1.3b cash outflows would have been recorded without the effect of ordinary working capital. We believe that the \$3.8b net fair value position of Continuing operations, that has been built during the same period, is similarly fabricated, and should be impaired.

## 5. What this means for Noble's performance indicators

### **The past: EBITDA, net profit and FFO after adjustment for increase in net mark-to-market**

Retrospectively, the impairment of this \$3.8b would have reduced EBITDA and net profit by  $\$3.8b/4.75 \text{ years} = \$800m$  on average every year. We estimate the average EBITDA since 2010 at \$246m,<sup>26</sup> average net losses at (\$353m) and average FFO at (\$232m).<sup>27</sup>

**The future : Continuing operations (Energy and MMO) are trapped in a vicious circle. More and more MTM must be constantly created**

### **1) Continuing operations are profitable, but do they generate operating cash flows?**

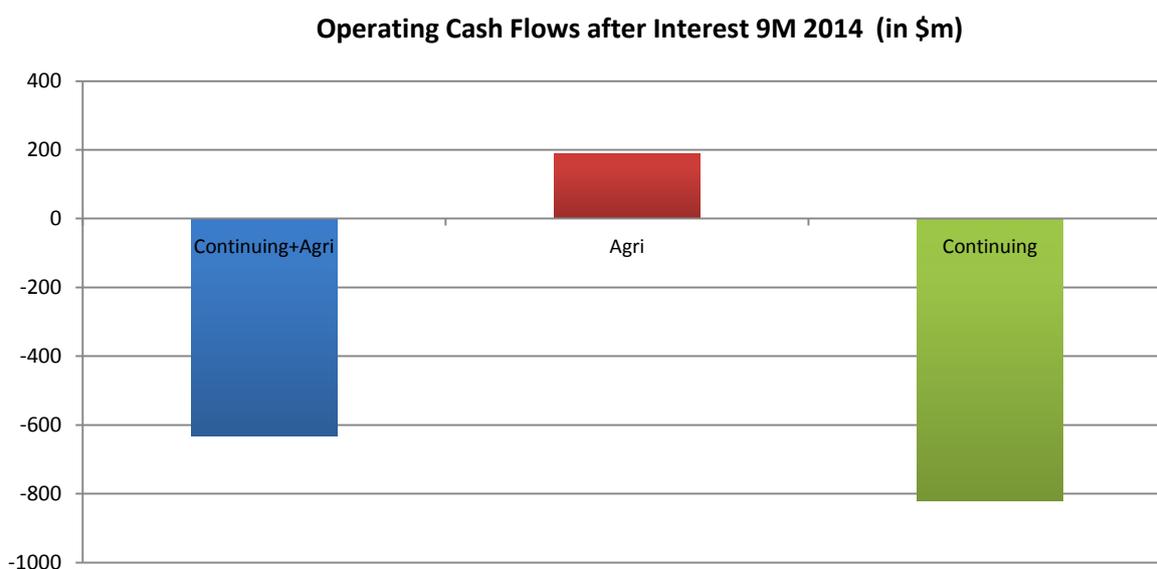
The market thinks that Continuing operations are the profitable part of Noble (\$483m profit in 9M 2014). Nevertheless, this profitability is driven by the growth in MTM. Continuing activities' MTM alone were \$546m higher in Q3 2014 than for the whole group in FY2013. Noble did not report the fair values for Continuing operations in FY2013. We estimate that Continuing operations' net MTM increased by \$983m during the first nine months of the year.

<sup>25</sup> AR 2013 p.112

<sup>26</sup> Capital IQ number for EBITDA + adjustment.

<sup>27</sup> For FFO, growth in net MTM taken out, interest deducted (not included by Noble), and increase in cash collateral with brokers (\$12m) added back

Analysts may have remarked that Noble strangely complicated its financial reporting in 2014. The income statement is divided between Continuing operations and Agri. The balance sheet is divided between Continuing operations and Agri. For some mysterious reason, cash flow statements are not divided. They are still for the whole group. So we cannot easily isolate Continuing operations' OCF. Still, Noble gives the OCF number for Agri. After interest expenses, OCF were positive: \$188m in 9M 2014. We deduct that Continuing operations' OCF were (\$821m) in 9M 2014.



Source: Noble Group data. Continuing operations' OCF calculated by deducting Agri's OCF from group's OCF

As mentioned in our first report, Agri benefited from subsidies from the group in 2014 (cash effect of \$87m). Besides, the number given by Noble for Agri is after working capital. We cannot assess the influence of commodities price moves. So we need to be careful about this number. What is important is that this shows that Agri's cash flow generation is better than its profitability. On the other hand, Continuing operations report a large profit, but cash flows show a bleak picture.

## 2) Noble caught in a vicious cycle with its MTM

Each year, Noble accelerates its profit using MTM. Each year, equity grows because of these MTM. Noble's management has to generate a minimum return on equity for its shareholders. The only way to achieve this objective is to print more and more MTM. This was exactly the problem of Enron before the market started to have doubts.

## 3) Future developments

On the positive side, Continuing operations will benefit from a reduction in interest with a lower level of bank debt post Agri transaction. We estimate the positive effect at \$75m.

The partnership with X2 Resources is an interesting development. X2's CEO, Mick Davis has an excellent track record. It is certainly a good time to pick up cheap mining assets. However, we think the value will be in a potential appreciation of the stake in X2. We are much more cautious about the trade flow brought by X2 itself. We think X2 will sell at market price to Noble, not at a discount. They are flushed with investors' money. They have no reason to grant discounts to one of their investors, penalising the others.

These two developments will not allow Noble to rebound. The group has two major problems. First, their level of equity is completely inflated. There is no way they can achieve the ROE they target, except by recording more and more MTM. Second, most of the MTM will not be realised. Worse, the risk is that if the negative MTM are underestimated, as we strongly suspect it was the case in the past, the group will continue to suffer cash outflows. This time, playing on working capital to hide it (e.g. repos) will become much more difficult.

## 6. Conclusion

Noble is engaged in a vicious cycle, similar to Enron. When a trader uses fair values to hide the performance of a bad quarter, the assumption is that the future quarters will be better. It is "ok" to do it because there will be better times later on. Losing the investment grade rating would have a dramatic impact. The auditor has some reserves but it accepts these fair values, sharing the optimism of its client.

The problem for Noble is that the better quarters probably never came. As we showed, the real operating performance has been consistently bad for a few years. More and more MTM had to be created to conceal their dwindling performance.

Yusuf Alireza defends the concept of an "asset light" trader. He should know that Enron's CEO, Jeff Skilling, was using the same expression. Enron claimed it was a market maker or a logistics company. The market applauded. Enron became a pile of MTM that never materialized.

The truth is that pure trading is an extremely competitive and volatile business. Noble recognised it back in 2006 in its annual report: "We have migrated from an asset light to an asset-medium position, investing heavily into strategic positions along our pipelines. This gives us control, economies of scale, and a strong competitive advantage as we constantly raise the barriers to entry."<sup>28</sup> There is a reason why the biggest traders like Glencore choose to always keep a certain percentage of fixed assets on their balance sheet. Achieving consistently high ROE with pure trading is close to

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<sup>28</sup> AR 2006 p. 20

impossible, especially when your equity level is vastly inflated in the first place. The only hedge fund who could generate positive returns all the time with its trading activity was Madoff.

It is now too late for Noble. There will be no miraculous recovery. The market will progressively realise the company's fair values are largely fabricated.

## 7. Questions to Noble's management

Here are our main questions to Noble's management:

- Why was a profit of \$46.5m recognised for PT ALH?
- Did Noble book a MTM with Sundance Resources, a highly speculative iron ore project?  
How much was it?
- Why are MTM amazingly immune to falling coal/iron ore prices? Does Noble use the same forward curve they use for Yancoal?
- Do current low commodities prices cause performance issues with suppliers?
- Is Noble willing to publish a breakdown of its MTM by industry/country?
- Since it is established that Noble has inventories repos (they are discreetly mentioned in the annual report), how much are these repos?
- Where does broker's financing show on the balance sheet? What are the interest-bearing payables?
- How does Noble explain its very poor cash generation despite the \$2.1b net MTM that was expected to mature since 2010?

### Next report

The third report with focus on Noble's debt and the investment grade. We will show that the way Noble reports its debt (gross, net, post inventories), and its so-called "liquidity headroom" are highly misleading. Noble does not report its entire debt. We will also write about very obvious governance issues (e.g. the board of directors), the number of key executives who left the group, and the role of the auditor. We will present our final valuation of Noble.