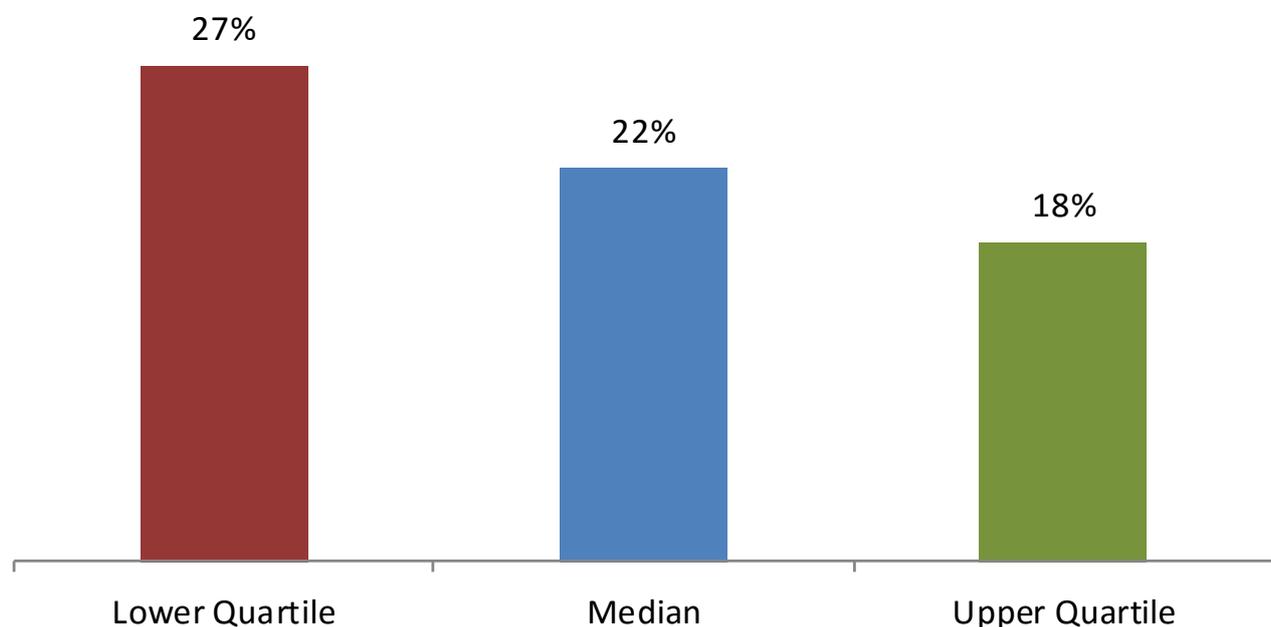


Excess Working Capital has risen 24% to €51 Billion in 2 years

When we published our first pharmaceutical industry working capital analysis in 2012, the survey suggested that there was excess working capital across the industry of €51 billion. The equivalent survey based in 2014 suggest that excess working capital had reduced to €41 billion. This latest survey suggested that excess working capital has returned to the €51 billion level in 2016. This would have the effect of reducing the industry average of net working capital to sales from 22% to 13% of sales and would be big enough to fund a number of massive acquisitions. The strangest thing about these numbers is that there has been no uniform deterioration in any element of working capital and there have been several improvers. The most curious piece seems to be that although many pharmaceutical companies make use of financial instruments to manage working capital, the impact of such instruments seems to be limited at best. Almost all pharmaceutical companies have either a formal working capital programme or someone who is permanently responsible for working capital. The numbers would suggest that only some of these initiatives have been successful, some that were successful have slipped back to a lower level of performance and most have been successful in one area of working capital while under-performing in others. The number of people working at pharmaceutical companies with titles suggesting a direct responsibility for working capital continues to increase and many of these new recruits are ex-consultants or ex-pharma executives where you would expect a deep experience of both the industry and the techniques required to improve working capital. But it doesn't seem to be making that much difference for many firms. With the continued pressure from shareholders to maintain and increase dividends the battle to control working capital continues.

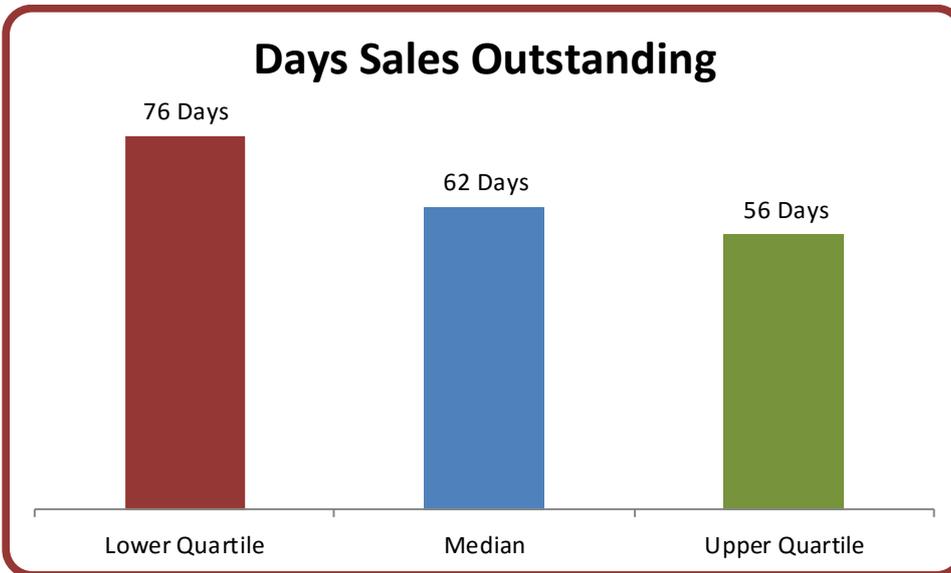
Working Capital to Sales



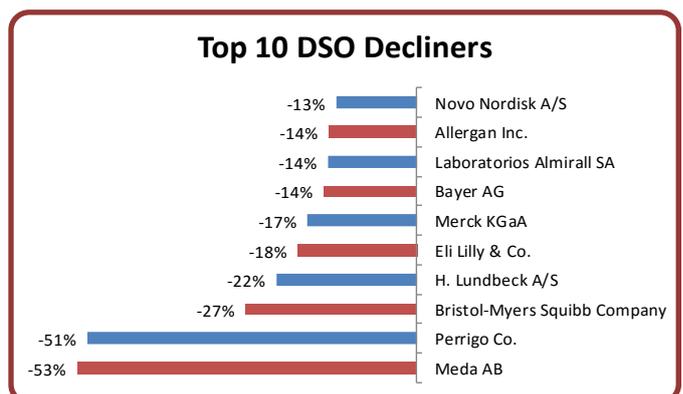
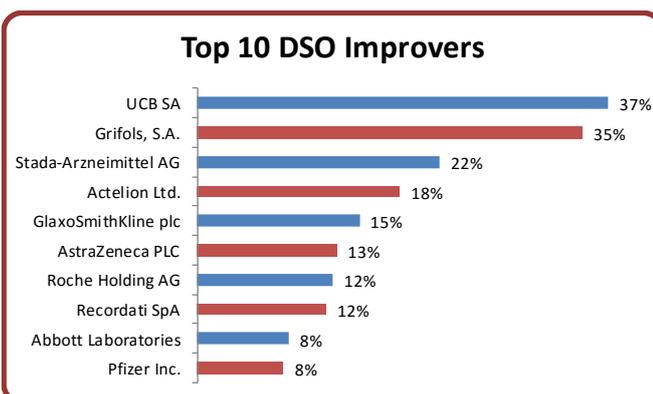
Another mixed bag of performances

Since our 2014 survey we have seen the lower quartile decline by 9% while the median and upper quartiles are almost unchanged. Overall the average DSO has declined by 2% for the entire peer group. So the gains seen in the 2014 survey have almost entirely been wiped out. What is consistent with the previous survey is inconsistency. Of the peer group of 33 companies 17 improved while the other 16 declined. This again shows that it remains difficult to maintain an improved DSO. In regional terms, emerging economies have proved to be the

biggest problem. The slowing economy of China and those in recession, such as Brazil, have put major pressure on cash flows in those economies that have impacted a number of pharmaceutical companies. Equally growth regions such as the Middle East have been hit hard by the decline on oil prices and this is filtering through to pharmaceutical companies in the region who were already suffering from a broad range of poor payment performance. Many of the newer emerging economies in places such as Central Asia have also seen cash flows come under pressure due to declin-

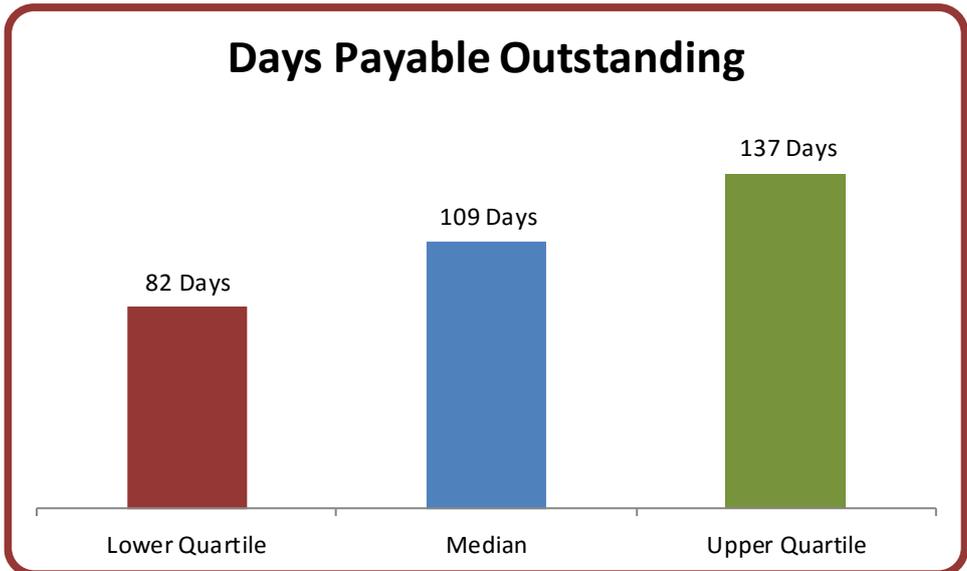


ing commodity prices, but as yet this region still makes up a small percentage of most pharmaceutical companies portfolio of customers. In Southern Europe the situation appears to have stabilised to a point. While payment terms are still significantly longer than Northern Europe and North America, government funding processes appear to continue to function. Factoring also continues to be popular in certain markets such as the United States and Japan. As long as interest rates are low or negative, banks are very happy to buy stable books of receivables at very low spreads. In many cases it is not the pharmaceutical companies looking for the funding, but banks offering the funding to clients who are already awash with cash. So as long as rates stay low we expect this trend to continue. We warned last time that were the interest rate situation to change dramatically then these sources of liquidity might dry up quickly and we have no reason to change our opinion now. So after all this relatively good news we fully expected that aggregate receivables performance would have improved. Looking at the top improvers, we know that some have used financial instruments to create the improvement rather than improve underlying processes. Looking at the top decliners it is clear that the biggest issue is certain companies can't seem to keep their eye on the ball for too long. So we have companies in the list that were decliners in 2014 that have now declined at an even greater rate. We also have companies that were improvers in 2014 and have slipped back into negative territory. One common issue for many pharmaceutical companies is the outsourcing of collections. While there is no doubt that many companies have vastly reduced the administrative cost of managing their books of accounts receivables, outsourcers have shown no skill or willingness to be good at collecting and their desire has been on the efficiency and automation of process. But then compared to other industries, pharmaceutical companies have never been brilliant at collecting.

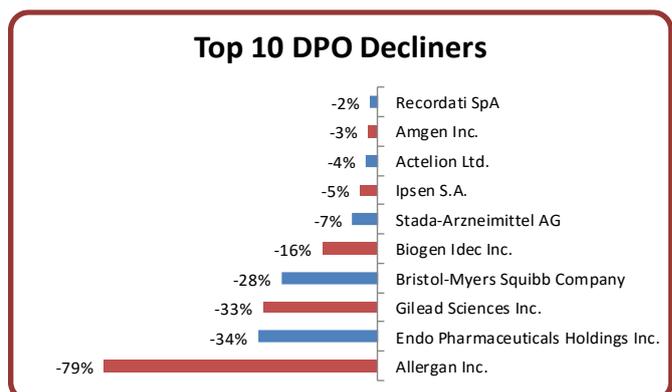
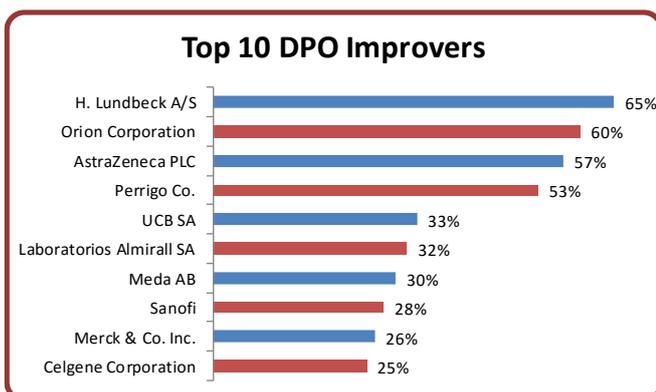


Mainly a path of improvement

In our last survey payables had increased by 7% over the previous two year period and our question was whether this improvement could be sustained or not. The good news is that the average DPO has risen again by 10%. In addition the lower quartile, median and upper quartile points have all improved versus the 2014 survey. We said at the time that this was because of clear global programmes to extend supplier payment terms and implement supply chain finance initiatives. Our direct observations would suggest that these actions have continued but that the reliance on supply chain finance has increased. While this has clearly produced bumper cash flows for some organisations it also presents a number of major risks which focus on the sustainability of such programmes. Firstly, many such schemes have forced suppliers to accept 90 or 120 day standard terms before they can qualify for early payment under such schemes. That extended term may not matter very much now, but if the schemes were to end many suppliers would not be agreeable to such long standard terms. Secondly, such schemes depend on very low interest rates. Most base rates in the big economies are still at or close to zero, making the cost of finance to prospective suppliers very tempting. So how long might this situation last? The simple answer is that we do not know. This situation has existed since late 2008 and there are few signs right now that that will change dramatically before 2017. But that is just a guess. Lastly, if banks are forced to strengthen their balance sheets again then it is possible that they may have to withdraw from such schemes in order to preserve liquidity. Most major US banks have leverage ratios in excess of 5% while only one major European bank can say the same thing. Most major European banks have leverage ratios of between 3% and 5%. This should be a worry since in the last economic crisis banks needed leverage ratios of up to 6% to survive without a bailout. The worst might never happen but it would be wise for major pharmaceutical companies that have engaged in such schemes to have contingency plans for such an event. When looking at the top 10 improvers and decliners it is clear that again we have a very mixed bag of performances. For those whose DPO reduced the rate of decline for most is far less than in 2014, but equally for those who improved the top rates of improvement has been far lower. And there are a number who appeared in these lists as decliners in 2014 who are now improvers and visa versa. All this suggests that while the aggregate path has certainly been one of improvement driven by those who have kick-started initiatives since 2014 and those who have maintained and improved previous good performances, there are still those who are not focused on working capital performance in payables. This has caused either continued underperformance or made them susceptible to a wobble in performance. The bottom line for those who in engage in payables programmes focused on releasing working capital is that sustaining improvement is the hardest part of any programme and the evidence suggests that for most organisations it is only a matter of time before that lack of long term focus causes the ball to drop.



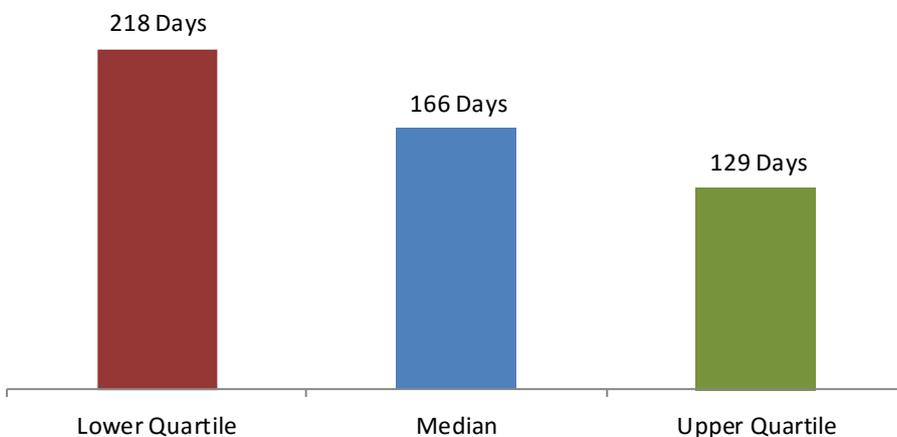
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Modest improvement but patchy

Since our 2014 survey aggregate DIO performance has only improved by 1%. Of the 33 companies surveyed there were 17 improvers and 16 decliners. The lower quartile point has not moved since 2014 and the median and upper quartile points have only slightly nudged downwards. While it is no surprise that inventories for pharmaceutical companies are far higher than those in other commercial and industrial sectors, it is quite surprising that only small levels of improvement have been made in the industry's largest component of working capital. While it is well known that there are strong structural factors such as highly centralised production that drive many of the reasons for high inventories, it is notable that no pharmaceutical company has made the trade-off between high levels of inventory and units costs that would evidence itself in a more distributed manufacturing strategy. For the decliners the big excuse is likely to be that they built up big stocks in anticipation of demand for new drugs hitting the market. This is yet more evidence of an industry that needs to change the way they

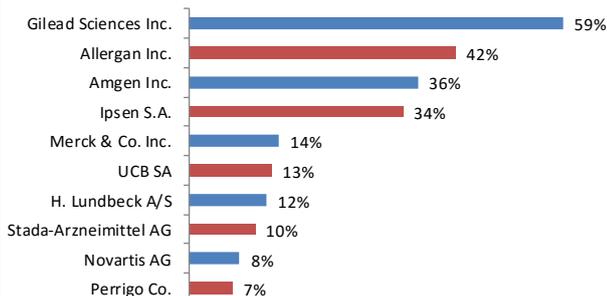
Days Inventory Outstanding



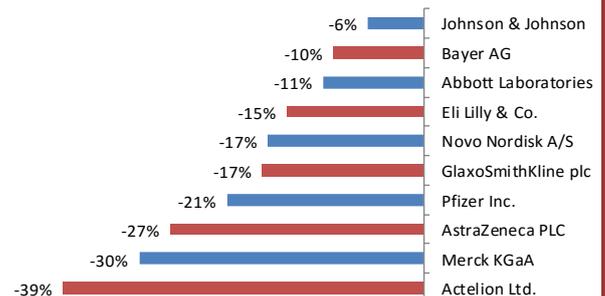
think about inventory management. These "launch" inventories are driven by the short term focus on profits and the need to capitalise in the short term on marketing campaigns. If we look at product launches in other industries it would be rare to have such huge inventory build ups. If we look at the top 10 decliners, we see a number of those same companies that were in the same category in the 2014 survey grouped with others who have been historically inconsistent in their performances slipping into the lowest category. Looking at the top 10 performers only a handful

from the 2014 survey have continued their improvement and remain in the top 10. Three of the star performers from 2014 now find themselves in the top 10 decliners. It is certain that each organisation will have a particular set of circumstances that will explain these potentially wild variances in performance over the years but for us it is yet more evidence that the industry is not entirely serious about managing inventory levels. We recognise that this will seem like a very generalised statement but the facts are that the number of companies that have made even modest improvements in inventory levels on a consistent basis in the last 4 years is very small. In 2014 we said that it might be necessary for a tipping point to be reached before real change happens in the area on inventory management for pharmaceutical companies. It is clear that that tipping point has not yet been reached. This should be a worry since the old argument was that margins are so high and the cash piles were so large that large inventories could be sustained. With increasing pressure on dividends to shareholders, margin pressure from all the large developed economies and slower growth in developing markets, at some point something will have to give way. There is another argument that large inventories are good for patient safety. Evidence from other industries would suggest that having massive levels of inventory is not necessary to ensure that products are in the right place at the right time. So we will continue to wait for real change.

Top 10 DIO Improvers



Top 10 DIO Decliners



Conclusions

Inconsistency and a lack of strategic direction

In some ways the results of this survey are disappointing. There has been very little progress on inventories, receivables seem to be getting worse and there seems to be an over-reliance on financial products to support improvements in payables. What we have not seen very often is a real change in underlying processes that can effect embedded and sustained changes in working capital performance. This is especially disappointing given the number of major working capital initiatives there have been across the industry over recent years. That is not to criticise those individuals who have done some great work for their respective companies to reduce working capital in a specific area but much of that work has been negated by declines in other areas of working capital, inconsistency of strategic focus from those at the top of the organisation and a lack of engagement to solve the core issues that drive high inventories across the industry. Our expectation is that this trend is likely to continue, especially if solutions can be found from banks to finance pharmaceutical inventories. But that is not to say that there is no progress being made. While there may be an over-reliance on supply chain finance to improve payables, one major positive of this approach is to use the credit ratings of pharmaceutical companies to financially support their own supply chain in a time when many companies lack access to cheap finance. We look forward to more pharmaceutical companies reaching medium sized and small enterprises with such initiatives. While receivables performance has been patchy, there have been several solid improvers and we hope this continues. It is notable that many mistakes made in the previous decades in the then newly opened markets of the former Soviet bloc that caused huge DSOs in such countries have been largely resolved and the newer entrants have tended not to make the same mistakes. This should bode well for the future but will still require a consistency of approach that has not yet been seen across the industry. The elephant in the room remains inventory. While some companies have made improvements, these improvements have not usually been sustained. This will require a real change in strategic direction that we have not yet seen.

Methodology

Informita has compiled information from the following companies published accounts for the year ended 2015:

Abbott Laboratories, Actelion Ltd., Allergan Inc., Amgen Inc., AstraZeneca PLC, Bayer AG, Biogen Idec Inc., Bristol-Myers Squibb Company, Celgene Corporation, Eli Lilly & Co., Endo Pharmaceuticals Holdings Inc., Forest Laboratories Inc., Galenica Ltd., Gilead Sciences Inc., GlaxoSmithKline plc, Grifols, S.A., H. Lundbeck A/S, Ipsen S.A., Johnson & Johnson, Laboratorios Almirall SA, Meda AB, Merck & Co. Inc., Merck KGaA, Novartis AG, Novo Nordisk A/S, Orion Corporation, Perigo Co., Pfizer Inc., Recordati SpA, Roche Holding AG, Sanofi, Shire plc, Stada-Arzneimittel AG, UCB SA.

The measurements utilised have been calculated according the following methods:

Net Working Capital to Sales Ratio - Revenue / Working Capital * 100;

Days Sales Outstanding – Trade Accounts Receivables / Revenue * 365;

Days Payable Outstanding – Trade Accounts Payable / Cost of Goods Sold * 365; and,

Days Inventory Outstanding – Total Inventory / Cost of Goods Sold * 365.

The logo for Informita, featuring the word "Informita" in a large, black, serif font. A thick red horizontal line is positioned below the text.

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