

Cash on prescription

Pharmaceutical companies and
working capital management 2011





Summary

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This year's *Cash on prescription* is the latest in a series of working capital management reports published by Ernst & Young.

Pharmaceutical companies in both the US and Europe managed to improve working capital (WC) performance in 2010 compared with 2009, with cash-to-cash (C2C) dropping by 3%.

The level of improvement, however, was not sufficient to reverse the deterioration in performance seen in the previous four years. C2C rose by 4% between 2005 and 2010. A more detailed analysis also indicates varying trends among the industry's constituents within each area of WC.

In addition, many WC challenges remain unaddressed, including heavy resistance to changes at many levels within organizations and through the extended enterprise, increased complexity in supply chains, and higher risks associated with the trend to outsourcing as well as with growth in emerging markets.

In this context, it is therefore critical for companies to continue implementing truly effective WC management strategies. Variations in WC performance between pharmaceutical companies point to significant potential for improvement. While part of this gap may be due to variations in sales mix by products and geography and in the way strategies have been deployed, the size of the disparities in performance between companies suggests fundamental differences in the degree of management focus on cash and process efficiency.

A high-level comparative analysis by Ernst & Young indicates that the leading 14 US and European pharmaceutical companies have up to US\$43b of cash unnecessarily tied up in WC processes. This amount is equivalent to close to 8% of their sales. Pharmaceutical companies may also identify further opportunities for improvement by examining the practices of leading performers within other industries, such as consumer products.

Note that this year's survey includes a review of the current WC performance of pharmaceutical companies in Japan. Results show similar levels of WC with their peers in the US and Europe, but with diverging performance in receivables and payables.

Leading companies will be those that take a structured "root and branch" approach to improving WC by targeting all the key operational levers and having a robust supporting infrastructure, including focused metrics, aligned incentives and strong risk management policies in place. They will also be those that embrace options such as applying lean manufacturing and supply chain initiatives, truly collaborating with channels of distribution and suppliers, and leveraging centralizing procurement and elements of the order-to-cash function. This also means taking an approach across all these areas that balances cash, cost and service levels.

Lower WC levels in 2010 compared with 2009

A review of the WC performance of the largest pharmaceutical companies in the US and Europe for the full year 2010 reveals a year-on-year improvement compared with 2009, with cash-to-cash (C2C) dropping by 3%.

This overall improvement in WC performance in 2010 stems from a combination of lower inventory (DIO down 4%) and higher payables (DPO up 3%), while receivables performance (DSO) remained unchanged. Nine companies out of 14 reported a year-on-year improvement in WC performance.

For the industry, these results occurred in the context of slowing pharmaceutical sales growth, adversely affected by the impact of patent expiry and competition from generic drugs, and increasing pressure to contain health care spending in many developed countries (compounded by the implementation of health care reform in the US). Emerging markets continued to perform strongly, accounting now for 14% of the total pharmaceutical market. Mergers and acquisitions activity was still high, while down on the previous exceptional 2009 year.

Table 1: Change in WC performance across the industry, 2009-10

US and Europe	2010	2009	Change
DSO	67.0	67.1	0%
DIO	43.1	44.7	-4%
DPO	26.5	25.7	3%
C2C	83.6	86.1	-3%

Table 2: Number of companies and % change for each WC metric, 2010 vs. 2009

		DSO	DIO	DPO	C2C
Reduction	>5%	3	8	3	6
	0%-5%	5	2	3	3
Increase	>5%	5	2	4	4
	0%-5%	1	2	4	1

Note: DSO (days sales outstanding), DIO (days inventory outstanding), DPO (days payable outstanding) and C2C (cash-to-cash), with metrics calculated on a sales-weighted basis
Source: Ernst & Young analysis, based on publicly available annual financial statements

More specifically, several factors may explain the reported year-on-year WC variations, each with varying impacts on different companies:

- ▶ Receivables performance was the result of several conflicting factors. Eight companies reported a year-on-year improved performance. There was a significant increase in levels of receivables in certain Southern European countries facing financial difficulties, especially Greece. Some companies accepted the offer made by the Greek government to exchange zero coupon bonds for outstanding 2007-09 accounts receivable related to certain government sponsored institutions. Some first government bonds were received in late 2010, with the remaining expected during the course of 2011. To reflect these developments, bad debt provisions were increased in some cases (overall provisions for bad debt in balance sheet reserves rose from 0.46% of sales to 0.51%). By contrast, there was a large drop in pandemic receivables at year-end compared with the same period of 2009, when there was a significant level of H1N1 outstanding receivables (responsible for a £600m year-on-year reduction in receivables for GSK for example). With regard to US wholesalers, payment terms appear to be marginally longer in 2010, following a significant increase in the year before. Finally some pharmaceutical companies reported specific initiatives to reduce overdue debts.
- ▶ With regard to inventory performance, over two-thirds of companies (10) reported an improvement, with eight of them achieving a reduction in DIO above 5%. Benefits continue to be delivered from the rationalization of the manufacturing network and more effective collaboration with customers. Among the initiatives that took place, GSK, for example, mentioned strong progress in reducing manufacturing cycle times and stockholding days through more efficient use of inventory throughout the supply chain. It is worth noting that the drop in DIO would have been similar if we were to exclude two companies particularly exposed to the production of specialty chemicals.
- ▶ Payables performance continued to benefit from pursuing specific initiatives, including leverage and consolidation of spend, development of e-sourcing for indirect spend (accounting now for 25% of total in the case of Novartis for example), extension and change of payment terms (with some targeting a 60-day term), standardization of processes and closer collaboration with suppliers. Eight companies reported a year-on-year improved payables performance, reflecting varying strategies and tactics, with some, for example, stretching terms with their main suppliers, reducing their supplier bases to achieve greater leverage in negotiations, or choosing to pay faster in return for cash discounts.

Deterioration in WC performance since 2005

The level of WC improvement in 2010, however, was not sufficient to reverse the deterioration in performance seen in the previous four years. C2C rose by 4% between 2005 and 2010.

These overall results since 2005 appear to be in sharp contrast with the industry's reported focus on cash and working capital (WC) management. The number of companies reporting an improvement or a deterioration in WC performance was evenly split.

Table 3: Change in WC performance across the industry, 2005-10

US and Europe	2010	2005	Change
DSO	67.0	61.1	10%
DIO	43.1	43.3	0%
DPO	26.5	24.3	9%
C2C	83.6	80.1	4%

Table 4: Number of companies and % change in WC metrics, 2010 vs. 2005

		DSO	DIO	DPO	C2C
Reduction	>5%	2	7	5	5
	0%-5%	2	1	0	2
Increase	>5%	10	6	9	5
	0%-5%	0	0	0	2

Source: Ernst & Young analysis, based on publicly available annual financial statements

A large deterioration in levels of receivables (DSO up 10%) more than offset progress achieved in the area of payables (DPO up 9%), while inventory performance has remained almost unchanged.

Several factors may explain these reported WC variations:

- ▶ The weakness in receivables performance may have been caused by changes in distribution arrangements in many countries, including a trend towards fee-for-service and direct-to-pharmacy schemes, consolidation among wholesalers

and US wholesalers having paid late or negotiated longer terms in the last two years. Another contributing factor was the rising proportion of non-US sales in the total (58% of sales in 2010 against 54% in 2005), as payment terms with customers are generally longer in most countries than with US-based customers. Cost containment measures implemented by health authorities, compounded by financial difficulties in some European countries, also contributed to this deterioration. Each company but two reported a weaker performance since 2005.

- ▶ By contrast, payables performance benefited from a stronger focus on procurement and sourcing, including managing terms more effectively (notably via extended payment terms). Nine companies out of 14 managed to improve performance.
- ▶ Unchanged inventory performance came as a surprise. This may be the result of the interplay of several factors. Collaboration has increased between manufacturers and wholesalers, through inventory management agreements, notably in the US, but much of the benefits appear to have been captured earlier (DIO fell by 9% between 2000 and 2005). Significant reductions in lead times and inventory levels have been achieved through lean transformations of sites, according to several companies. On the other hand, building capacity to serve fast-growing emerging markets may have led to a temporary build-up in inventory. Industry consolidation also played a role, with the accounting revaluation of the inventory of the acquired companies temporarily cancelling out, to a certain extent, the benefits derived from supply chain rationalizations. A move to fee-for-service and direct-to-pharmacy schemes (especially since 2007) may also have been a negative factor. A majority of companies (8) reported improved inventory performance since 2005.
- ▶ Another factor that influenced WC performance overall and for each individual company was the change in the revenue mix by products, with non-pharmaceutical and vaccines now representing 32% of total sales (to compare with 25% in 2005). Wide variations in WC business model and dynamics exist among non-pharmaceutical activities, with consumer health care exhibiting a WC to sales ratio of 11%, medical devices 26% and chemicals 18% compared with 23% for pharmaceutical.
- ▶ Increased levels of outsourcing also played a role in WC variations, the extent of which is difficult to assess owing to the different nature of supply contracts and the associated cost, cash and service level trade-offs chosen between manufacturers and third-parties.



Wide variations in current WC performance

For the industry as a whole, the average level of C2C was 84 days in 2010, with a range of between 49 days and 102 days. The spread of performance may be partly explained by differences in product and country sales mix as well as in the manufacturing, logistics and distribution strategies deployed.

More specifically, the average level of receivables was 67 days, with a range of between 55 days and 84 days. Part of the DSO performance across countries may be due to varying levels of market maturity, commercial strategies and degree of concentration. This also reflects differences in local payment practices and cash collection effectiveness. Among other businesses, consumer health care carries the lowest level of DSO (35-45 days). Medical devices have the highest level (70-80 days), while for chemicals, the range is 40-50 days.

The average level of inventory was 43 days, with a wide range of between 18 days and 63 days. The spread of performance partly reflects variations in product sales mix and within pharmaceutical products. The lowest level of DIO is carried by consumer health care (35 days), followed by pharmaceutical, medical devices and chemicals (45-50 days). IMAs and other vendor-managed inventory arrangements are common across the industry, the use of which, however, varies among companies. Inventory performance also varies by category, showing varying manufacturing, packaging and distribution strategies for each individual company.

The average level of payables was 27 days, with a large range of between 8 days and 48 days. Note that a degree of caution should be exercised when reviewing individual DPO performance due to differences in the way trade accruals are accounted and disclosed. Variations in payables performance for the industry are partly caused by differences in product sales mix, levels of outsourcing and nature of the supply contracts. Also, some companies may prefer to pay more quickly to take early payment discounts, whereas some pursue extended payment terms.

WC performance per company, 2010

Table 5: C2C

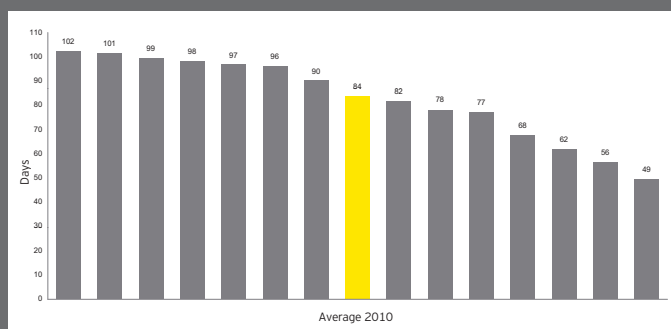


Table 7: DSO

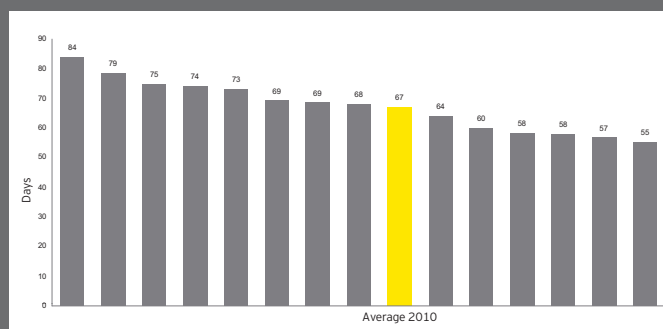


Table 6: DIO

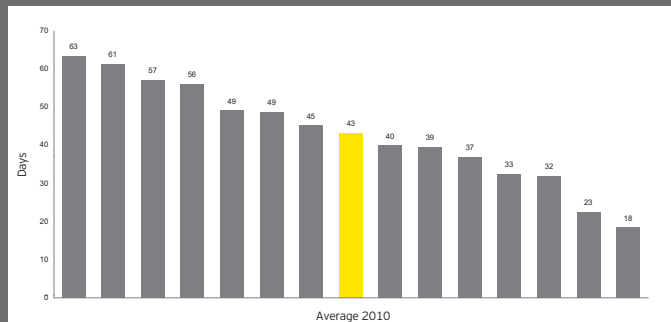
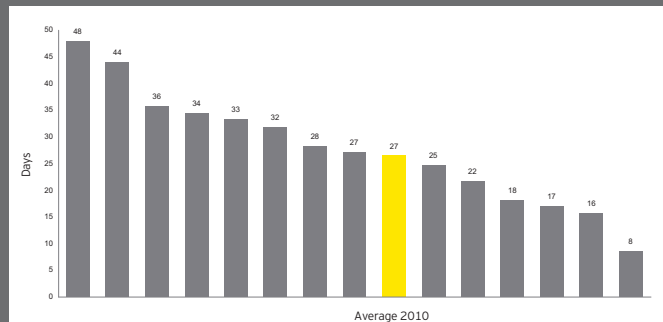


Table 8: DPO



*Average is sales-weighted

Source: Ernst & Young analysis, based on 2010 publicly available annual financial statements



Actions taken to address WC

Pharmaceutical companies have been focusing on a number of initiatives, including:

- ▶ Simplifying and consolidating manufacturing and supply chain operations
- ▶ Improving billing and cash collection and reducing levels of overdue receivables
- ▶ Monitoring rebates, discounts and other sales incentives, notably in the US
- ▶ Extending payment terms with suppliers
- ▶ Leveraging and consolidating procurement, and developing e-sourcing
- ▶ Collaborating more closely with channels of distribution and suppliers
- ▶ Improving forecasting processes
- ▶ Managing outsourcing arrangements effectively
- ▶ Improving operational coordination between supply, planning, manufacturing and logistics functions and processes
- ▶ Adopting new technologies to share real-time and accurate information about supply and demand, but also to track and trace products to potentially reduce counterfeiting
- ▶ Deploying global ERP systems to help drive greater operational efficiencies and improve visibility across the entire supply chain
- ▶ Tracking and monitoring WC metrics and linking compensation to these metrics.

Many WC challenges remain unaddressed

- ▶ There is still some heavy resistance to changes at many levels within organizations and through the extended enterprise.
- ▶ Lean transformations have yielded significant benefits for the industry in the last few years, but supply chains have also become more complicated and vulnerable to business disruptions.
- ▶ It is getting harder to balance operational excellence with agility. How can you best balance, for example, the need to maintain strategic inventory levels to ensure competitive lead times against the risk of disrupting patients' lives and missing a profitable sale?
- ▶ Demand forecasting remains poor, owing to lack or delayed demand visibility, complex sales channels and complicated production and distribution compliance rules despite having very predictable demand. Access to and effective processing of sales channels data, for example, can dramatically improve demand forecasting and supply chain planning.
- ▶ The trend to outsourcing has brought with it a number of risks, including potentially longer and more variable lead times, excess safety stocks, higher logistic costs and loss of control. Levels of outsourcing across the pharmaceutical industry have increased significantly in the last decade, reaching close to 40% of total manufacturing, packaging and clinical trials spend.
- ▶ Move to fee-for-service and direct-to-pharmacy schemes may result in higher distribution costs, longer delivery times, reduced levels of services and higher customer transaction costs and activity to maintain timely payments.
- ▶ The pharmaceutical market will increasingly necessitate faster changeovers and smaller production runs.
- ▶ Growth in emerging markets poses challenges associated with the inefficiency and risks of some of these local businesses. This requires a continuing reassessment of WC management strategies to keep pace with rapidly evolving local market conditions and integration of acquisitions. This also means striking a delicate balance between manufacturing and supply chain cost structures and pricing strategies.
- ▶ Regulatory requirements related to product manufacturing, testing, packaging, handling, storing, distributing and shipping hamper the ability of the entire supply chain to adapt quickly to changing market and economic conditions.
- ▶ The high number of different packages for each product drives complexity and adds costs to supply chains and manufacturing processes.

Opportunity for WC improvement

Variations in WC performance for US and European-headquartered pharmaceutical companies point to significant potential for improvement.

A high-level comparative analysis suggests that the leading 14 US and European pharmaceutical companies have between US\$20 billion and US\$43 billion of cash unnecessarily tied up in WC processes, equivalent to between 3.6% and 7.7% of sales.

This has been calculated by comparing the performance of the WC components of each company with that of the average (low estimate) and the upper quartile (high estimate) of its peer group. Even at the top end of each range, our experience across many projects, industries and geographies shows that a dedicated focus on WC management can frequently lead to results at or above this level.

For the industry as a whole, the range of cash opportunity is higher than a year before (when it was between 3.4% and 6.8% of sales).

Analysis shows that the cash opportunity is distributed across each WC component, with 40% coming from inventories, 30%-35% from payables and 25%-30% from receivables.

Pharmaceutical companies may also identify further opportunities for improvement by examining the practices of leading performers within other industries, such as consumer products.

Table 9: WC cash opportunity, 2010

	Cash opportunity					
	Value (US\$b)		% WC scope*		% sales	
	Average	Upper quartile	Average	Upper quartile	Average	Upper quartile
Receivables	5	13	5%	13%	0.9%	2.4%
Inventories	8	17	12%	26%	1.4%	3.0%
Payables	7	13	17%	32%	1.3%	2.3%
Total	20	43	10%	21%	3.6%	7.7%

*WC scope = sum of trade receivables, inventories and accounts payable
Source: Ernst & Young analysis, based on 2010 publicly available annual financial statements



Japanese pharmaceutical companies and WC review

Compared with their peers in the US and Europe, Japanese pharmaceutical companies exhibit a similar level of WC to sales ratio (based on a selection of five large companies), but with diverging receivables and payables performance.

Deregulation and competition from generic drugs have dramatically changed the Japanese pharmaceutical market in the last few years. Competition has increased significantly between domestic companies and foreign international pharmaceutical leaders, consolidation has intensified and Japanese pharmaceutical companies that used to be mostly domestic have been expanding abroad, notably through acquisitions (international sales accounts now for 43% of total sales for our selection of companies). One defining characteristic of the Japanese pharmaceutical market relates to the revision of drug prices once every two years by NHI (National Health Insurance).

In Japan, pharmaceutical distribution remains largely dominated by the wholesale industry and, within it, increasingly, by large companies, as a result of intense consolidation (the number of companies in the industry has contracted by 70% to about 120 in the last decade).

Compared with other regions, payment terms with pharmaceutical wholesalers are much longer in Japan at 90-120 days. The higher levels of payables (DPO) boasted by Japanese pharmaceutical companies compared with its peers partly reflect the impact of local payment practices, with trade terms generally longer in Japan than in the US and Europe.

Interestingly, Japanese pharmaceutical companies exhibit similar inventory performance than their US and European peers.

Table 10: WC metrics, 2010

	Pharmaceutical companies	
	Japan	US and Europe
DSO	84.8	67.0
DIO	43.6	43.1
DPO	47.8	26.5
C2C	80.5	83.6

Source: Ernst & Young analysis, based on publicly available annual financial statements



How Ernst & Young can help

To support companies in gaining greater control over their cash flows and addressing WC opportunities and challenges, Ernst & Young helps identify, evaluate and prioritize realizable improvements in WC derived from process improvements, elevated compliance levels or changes to commercial terms. We also help companies to implement these WC and cash flow improvements and realize the resulting benefits.

To help organizations make the transition to a cash-focused culture, we also help them implement the relevant metrics and identify areas for improvement in cash flow forecasting practices. We can then assist in implementing processes to improve forecasting as well as frameworks to sustain improvements.

WC improvement initiatives can deliver a high ROI. In addition to increased levels of cash, significant cost benefits may also arise from process optimization through potentially reduced transactional and operational costs, lower levels of bad and doubtful debts, and inventory obsolescence.

Study methodology

This report is based on a review of the WC performance of the 14 largest pharmaceutical companies (by sales) headquartered in the US and Europe.

The companies included in our report are as follows:

Abbott Laboratories, Amgen, AstraZeneca, Bayer, Bristol-Myers Squibb, Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Merck, Merck KGaA, Novartis, Pfizer, Roche and Sanofi.

The review on which the report is based is both industry- and company-specific. It uses metrics based on publicly available annual financial statements.

The analysis has been completed by a review of the current WC performance of five major Japanese pharmaceutical companies (Astellas Pharma, Chugai Pharmaceutical, Daiichi-Sankyo, Eisai and Takeda Pharmaceutical).

The performance of individual pharmaceutical companies is not disclosed.



Glossary

- ▶ **DSO (days sales outstanding):** year-end trade receivables net of provisions, including VAT and adding back securitized receivables, divided by full-year pro forma sales and multiplied by 365 (expressed as a number of days of sales, unless stated otherwise)
- ▶ **DIO (days inventory outstanding):** year-end inventories net of provisions, divided by full-year pro forma sales and multiplied by 365 (expressed as a number of days of sales, unless stated otherwise)
- ▶ **DPO (days payable outstanding):** year-end trade payables, including VAT and adding back trade-accrued expenses, divided by full-year pro forma sales and multiplied by 365 (expressed as a number of days of sales, unless stated otherwise)
- ▶ **C2C (cash-to-cash):** equals DSO, plus DIO, minus DPO (expressed as a number of days of sales, unless stated otherwise)
- ▶ **Pro forma sales:** reported sales net of VAT and adjusted for acquisitions and disposals when this information is available

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