

How cutting inventory levels could save companies millions



Argon&Co*

Inventory optimisation: the clever way to boost cash and free up capital

Over the past two years, central banks around the world have rapidly raised interest rates in an attempt to tame inflation. This has increased the cost of doing business, especially for industries that need to manage large inventories. Add to this additional supply chain complexities still lingering from the pandemic, plus tensions in raw materials supply and increasing demand volatility, and many industrial operators are facing soaring costs just to manage and service their supply chains, hence the necessity to better monitor liquidities. Whatever their size, companies need now to focus on cash flow management.

There are typically 3 main operational levers to reduce cash flow requirement and increase free cash flow generation:

1. Addressing accounts receivable / payable
2. Minimising capital expenditure (CAPEX)
3. Optimise inventory

While companies tend to reduce their cash flow requirements by optimising accounts receivable and payable, and by minimising capital expenditure, which are the most obvious levers, the most challenging and yet direct means of doing this is by optimising their inventory.

Capital expenditure is generally dealt with either by stopping investment altogether, coupled with operational excellence initiatives aimed at producing more without CAPEX (generally through Lean six sigma initiatives) or, when investment is unavoidable, as part of “design to-cost” approaches aimed at right-sizing investment.

Effective inventory management is another way of improving cash flow and freeing up capital. These programmes can reduce inventory by 15-30% and avoid the costs associated with warehousing and depreciation. Let’s have a look at some best practices and things to avoid, based on our experience.

Overcoming complexity

The complexity of inventory management is linked to various interconnected factors:

- Uncertain demand: changing consumer preferences, market trends and economic conditions make it difficult to determine optimal inventory levels and avoid excess stock or shortages.

- Lead times and variability: the longer the lead times (transportation and production schedules), the greater the uncertainty of demand and the need for stocks, making it necessary to reduce lead times whenever possible. Managing lead time variability (transportation, production schedules, and supplier reliability) is also crucial to maintain service levels while avoiding stockouts or overstock situations.
- Product variety and SKU proliferation: managing inventory across diverse product lines (with their own demand patterns, lifecycle stages and inventory requirements) adds complexity to decision-making processes and requires tailored strategies for each product category.

In all cash optimisation projects, it is essential to assess company supply chain maturity against industry best practices and analytics in order to create priority action plans.

Sponsorship and collaboration

Managing cash flow optimisation projects requires collaboration across departments and functions within an organisation and the ability to make trade-offs between function within the company. To name a few:

- Cost-service level trade-offs: finding the optimal balance between service levels and costs involves trade-offs and requires a nuanced understanding of business objectives, competitors’ service offering and customer expectations.

- Production efficiency vs inventory levels: companies must balance the trade-off between optimising production efficiency (batch sizes, changeover times, length of the production campaigns) and minimising inventory investment to achieve cost-effective operations.
- Procurement costs vs inventory: finding the right balance that minimises total supply chain costs while ensuring sufficient inventory levels to meet demand. Lead time and minimum order quantities need to be scrutinised.

It is critical to begin with a proper analytical framework and C-suite sponsorship to ensure the right trade-offs are made between cost efficiency, inventory requirement, and customer satisfaction. Overall, the CEO or the CFO, supported by cross-functional teams and a dedicated project manager, should lead the cash flow optimisation project. Here is why:

Cash flow management must be thought in line with the company's strategic priorities and hence requires the input of the CEO. It also involves a comprehensive understanding of the company's

financial position, necessitating the advice of the CFO.

In our experience, they are best supported by a cross-functional team (including representatives from finance, manufacturing, logistics, supply chain planning, sales, and procurement) in order to include a range of perspectives and ensure comprehensive analysis and effective implementation.

Assigning a dedicated project manager ensures accountability, coordination, and timely execution of initiatives.

This approach ensures alignment with strategic objectives, leverages financial expertise, fosters collaboration across the organisation, and facilitates effective project management to achieve tangible results in improving cash flow efficiency and financial performance.

Below, we hear from a steel products manufacturing company which produces to order, where inventory optimisation was used as a lever for business recovery.

Business case: Argon & Co helps equipment manufacturer reduce inventory by 30%

In 2022, Argon & Co partnered with a major industrial manufacturer that needed to reduce its working capital requirement. The company had considerable debt and needed to find ways to slash costs. Optimising its supply chain was one area of focus, but the complexities of its business model meant that this would not be a simple process.

The company produces steel products, mainly for the oil and gas sector, as well as for automotive and aerospace clients. As every order is highly specialised, the company manufactures on-demand, rather than maintaining a large inventory of pre-made products. When an order comes in, production starts, often taking months for the order to be finished and shipped to clients.

Production involves various stages that use different manufacturing and testing equipment. Bottlenecks and queues in this production process inevitably arise, slowing down the fulfilment of orders. To optimise this, it is important to know precisely when to launch production of each order so that it flows smoothly through the workshops. But, because each client requires different specifications and volumes, this optimisation becomes an extremely complex task.

The machines involved in the production process need to be set up differently for each order.

Some orders are manufactured at multiple sites, sometimes in different countries, with the raw materials and half-finished products needing to be transported between them. Wastage must also be calculated and worked into the supply chain so customer orders can always be filled in full. All these elements add further complexities to the supply chain.

Argon & Co launched its analysis of the manufacturer's global supply chain operation in October 2022 with the sponsorship of the CEO and the members of the executive committee.

"The main levers for reducing inventory were cutting down the lead time from end-to-end through a better capacity allocation between product lines and an effective customer order production planning considering bottlenecks," says Fabrice Corbière, a partner at Argon & Co. Three months after the diagnosis, targets and actions plans were shared with the executive committee.

Argon & Co designed an intelligent tool which allowed greater visibility of stock levels, where they were currently being held, what state they were in and whether these levels were in line with forecasts and objectives. This involved implementing a new data management and retrieval process capable of pulling this information from the client's various sites across the globe. With this data clearly presented in a structured and aggregated way, decision-makers at the client company would be able to take immediate action based on near real-time information.

Working with the client's in-house Transformation Management Office, the Argon & Co team held monthly regional steering committees to present results, track progress, identify blockages (such as production bottlenecks) and cascade findings through the company. The team also put in place several transformation projects to embed these new processes and tools, as well as progressive onboarding techniques to ensure its recommendations were thoroughly adopted by operational staff in all regions.

"This level of change management and embedding is critical to ensure we design the right solutions, and that those solutions are adopted by the people who are ultimately going to use them," observes Fabrice. "It allowed us to interface with everyone involved, hear their concerns and objections, and design recommendations that would have the right impact and work well for the individuals who will use them."

Around half-way through the two-year project, Argon & Co's findings and recommendations are currently being implemented in the client's major geographies, with a forecast of achieving a €400m (-30%) reduction in inventory levels by the end of 2024, without negatively impacting delivery times or customer satisfaction. This represents a huge potential reduction in working capital requirements, freeing up funds to pay down debt and fuel future growth.

Setting priorities and achievable targets

A "normative" approach is very effective in identifying and prioritising issues. Based on the principle that stock is a necessary evil, this approach models the ideal stock level (in quantity, value and location – factories, distribution centres, subsidiaries), given both the commercial and industrial context of the company.

It is based on the distinction between different types of stocks, whose theoretical target is then calculated based on the analysis of the company's historical data and a detailed understanding of its constraints:

Categories	Drivers
Normative Stock	<ul style="list-style-type: none"> • Reorder point • Safety stock and safety time • Procurement lot size / frequency • Processing time • Production cycle time • Shipment lot size / frequency • Shipment time • Transit (transport, administrative)

Categories	Drivers
Special Stock	<ul style="list-style-type: none"> • Anticipation of demand increase / capacity decrease • Consignment stock • Strategic stock

This approach makes it possible to have a credible vision of the target stock, and to identify the first short-term actions and priorities amongst the different levers. These may include: supplier performance and responsiveness, production performance and flexibility, cost-service level trade-offs, logistics performance and responsiveness, performance of supply chain planning processes, etc. Activating these levers requires a performance management team and KPIs to monitor.

These levers can be activated for recovery purposes, as in our case study above – but they can also be used to generate savings, optimise cash flow, and free up scope for investment. Below, we hear how this was achieved by a pharmaceutical giant.

Business case: unlocking value through supply chain optimisation

Argon & Co partnered with one of the world's largest pharmaceutical and biotech companies, present in 130 countries worldwide and serving over 100 million patients. After three years in which its sales increased substantially following the Covid-19 pandemic, this pharmaceutical client was seeking to sustain its growth by putting more capital into investment without reducing its dividend distribution policy nor the company's credit rating.

The idea was to identify potential areas where the supply chain and inventory management could be optimised to generate additional cash which could in turn be reinvested to fuel growth initiatives.

The teams developed an inventory optimisation projection for each of the pharmaceutical's markets and individual brands. As part of a realisation five-year glide path, this mapped out specific targets for inventory holdings for each brand per year, from 2023 to 2028. Key to this was understanding the lag times involved in the supply chain process, where changes often take a year or more to show their true effects and benefits. These projections came with a detailed tracker allowing the pharmaceutical to anticipate and follow the effects of their decisions and the benefits they would have.

Working in step with the company's strategy team, Argon & Co mapped out how and when the recommended inventory optimisations could free up capital to finance the growth of new brands. The team started by identifying areas for inventory investigations that the client could carry out quickly for immediate wins, as well as more complex optimisations that would lead to long-term results, with 13% of the €800m

inventory reduction target already delivered. “In the dynamic landscape of 2023’s economic challenges, with the added complexity of rising interest rates impacting pharmaceutical companies, Argon & Co’s solutions stepped in to offer strategic approaches for enhanced working capital, optimised inventory management and robust cash flow,” says Crispin Mair, a partner at Argon & Co. “In aligning with the business’s overall strategy, we emphasised the importance of examining all forms of inventory and optimising them in tandem with the broader organisational goals.”

Part of the work carried out with the pharmaceutical giant involved examining all the processes that surrounded and impacted its supply chain, and how decisions made in inventory management can have cascading effects on other areas of the business, such as manufacturing adherence, estimated peak process and demand forecasting. This helped the client understand where the critical decision points were in its supply chain and how they impacted its bottom line.

Argon & Co also worked with the pharmaceutical to change the methodology it used to calculate inventory. This was achieved using one of the group’s internally developed tools, which compares industry best practices with clients’ stock levels. The tool is now being embedded in the pharmaceutical’s own APIs, making these new, better-informed methodologies part of the processes that will drive its inventory management decisions going forward.

In total, the supply chain optimisation designed for this client will lead to a €800m inventory reduction globally over the next few years. This represents substantial savings on stock levels and costs, unlocking operating capital that would have otherwise sat dormant on a warehouse floor.

Critical success factors

When such projects fail, it is typically due to unrealistic ambitions, a lack of sponsorship to take the necessary trade-offs between cash / costs / services, a lack of resources, or action plans that are not kept up to date.

On the other hand, there are a number of factors essential to success:

- Ensure executive sponsorship to set the level of ambition and manage the inevitable trade-offs
- Establish a roadmap that mobilises all stakeholders based on a normative approach (especially in make-to-stock environments)
- Explore all levers, both upstream and downstream, that can foster a collaborative approach
- Integrate a sustainable inventory management approach into the company’s routines and processes.

Benefits within reach

When companies are confronted with debt or cash flow issues, they are generally very good at working on receivables/payables issues. When the situation calls for it, capital expenditure can also be frozen.

Inventory leverage, however, is less frequently activated in all its dimensions, as it is more complex to address due to its eminently cross-functional dimension, requiring trade-offs between company functions (purchasing, production, supply, logistics, sales, etc.).

The benefits of inventory optimisation are very high, potentially reaching 15 to 30% reduction in stocks, in addition to collateral improvements (such as better customer service and logistics costs reductions). Depending on the company’s situation, the cash generated can also be used to improve its financial condition, for example by reducing debt or investing without affecting dividends or the company’s credit rating.

About Argon & Co

Argon & Co is a global management consultancy that specialises in operations strategy and transformation. With expertise spanning supply chain planning, manufacturing, logistics, procurement, finance, and shared services, we work together with clients to transform their businesses and generate real change. Our people are engaging to work with and trusted by clients to get the job done.

We have offices in Paris, London, Abu Dhabi, Amsterdam, Atlanta, Auckland, Brisbane, Chicago, Dublin, Dusseldorf, Hong Kong, Lausanne, Melbourne, Mumbai, Riyadh, São Paulo, Singapore and Sydney.

www.argonandco.com

Argon&Co*