

TREASURY SERVICES

Sustainable Treasury Management:  
**It's Easier Than You Think**



# Green Treasury

Treasury organizations are getting serious about reducing their environmental footprints. In the process, they're saving money and boosting their efficiency.

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# Eco-Friendly Practices Improve Corporate Performance

Five years ago, boards were asking management, “What’s our China strategy?” Today, they want to know about their green strategy.<sup>1</sup>

— Hau Lee Thoma  
Stanford Graduate School of Business

Companies around the world understand the long-term threat of global climate change and are working to create carbon-neutral footprints. Increasingly, these environmental leaders begin within their own internal operations and extend their best practices throughout their entire value chains. Internally, they’re setting specific targets for greenhouse gas reduction and implementing sustainable strategies—everything from reducing paper and energy consumption and limiting air travel to investing in “green” projects and participating in carbon offset programs. Externally, they’re building environmental performance into their procurement decisions and collaborating with partners and customers to develop resource-efficient practices. In many cases, these green practices create additional value by differentiating these companies with shareholders, customers and business partners.

Several powerful trends are leading treasury operations to embrace a paperless environment.

- Economic pressures are forcing many companies to tighten their belts, find new ways to lower operational costs and fund more projects internally rather than through the credit markets.

- Growing transaction volume, expanding global networks, accelerating the speed of business, limiting resources, expanding responsibilities and increasing collaboration with other internal departments all open the door to electronic solutions.
- Payments fraud and business continuity are emerging as critical business risks that require careful management.
- A variety of stakeholders—from customers and business partners to investors—are reexamining their own environmental performance and viewing paper reduction as one way to reduce their environmental footprint. Studies show that the value chain of producing, transporting, printing on and disposing of paper is a carbon-intensive process.

J.P. Morgan has a valuable perspective on the paperless treasury environment. To support its corporatewide sustainability strategy, Treasury Services launched a Go Green Campaign in 2007.

A staff of dedicated professionals has reached out to more than 25,000 clients, offering support and services to help them transition to a paperless environment. This effort has eliminated more than 24 million documents from receivables operations in just 18 months. By targeting such additional paper-intensive products as DDA statements, EDI mail advices, and disbursements and billing analysis statements, the campaign aims to further reduce the volume of paper sent to clients by another 77 million documents. As a result of these initiatives, J.P. Morgan has reduced more than 101 million documents since the Go Green Campaign began, which is the equivalent of reducing three million pounds of paper usage, 50 million pounds of greenhouse gasses and preserving 33,000 trees, roughly three times the size of New York City.

<sup>1</sup> *Treasury & Risk*, “What’s Your Green Strategy?,” October 2008.





# Building a “Green” Treasury Operation

79% of CFOs believe that environmental, social and governance programs improve financial results by helping maintain a good corporate reputation or brand equity.<sup>2</sup>

— 2009 McKinsey Global Survey

Treasury operations have traditionally been paper-intensive environments. Many companies still generate paper invoices and mail them to suppliers at regular intervals. Paper checks and documentation arrive from lockboxes each day, and Treasury staff enters data manually into the accounts receivable system to identify and resolve exceptions. They rely on a variety of paper statements and reports to track transactions and manage cash flow.

Companies issue paper checks daily to pay their vendors, employees and business expenses—and receive a variety of ancillary paper documents that include reconciliation reports and stop payment advices. Boxes of cancelled paper checks get returned to companies, which then must be stored in secure locations to comply with internal and regulatory guidelines. And whenever customers ask questions about past transactions, Treasury staff must find these documents. The inefficiency of this traditional approach has led many companies to adopt paperless processes.

Over the course of a fiscal year, paper-based processes for sending bills and receiving payments can also have a significant impact on the environment—and on the treasury cost structure. Large paper-based treasury operations can easily generate 5.5 tons of paper each year—the equivalent of 143 trees and 106 tons of greenhouse gasses—from the

processes used to produce, transport, print on and dispose of paper.<sup>3</sup> These paper documents are also expensive to handle. On average, to file and maintain 500,000 pieces of paper, companies spend an estimated \$250,000 in workflow management, another \$115,000 to research lost files and approximately \$150,000 in storage and disposal costs. What's more, companies often pay extra fees for their paper trails, since the paper documentation they request often duplicates information they already receive from their banks online.

Paper documents also expose companies to significant business risks. Natural disasters and acts of terrorism can destroy critical company and customer documents and bring the entire cash management process to a halt. Paper documents are also more difficult to protect from unauthorized viewers. And in a troubled economy, companies that issue paper checks are more vulnerable than ever to check fraud.

To reduce redundancies and better manage risk and business continuity, Treasury departments are moving steadily toward a “zero-return” environment, where they send and receive information electronically with no paper returned. They're analyzing the paper volume that their operations create—not just receivables, disbursements and DDA statements, but also the paper associated with information reporting, ACH transactions and EDI. They're adopting new processes supported by technology that meet their requirements for accuracy, secure transactions and regulatory compliance. And in the process, they're creating leaner operations that benefit their organizations in the following important ways:

- Reduced transaction costs
- Lowered indirect business costs
- Increased efficiency and saved time
- Improved transparency
- Increased document security

<sup>2</sup> *The McKinsey Quarterly*, “Valuing Social Responsibility,” 2009.

<sup>3</sup> Paper Footprint Calendar at [Payitgreen.org](http://Payitgreen.org), used for all such calculations throughout this paper.



# Consolidating Receivables Management and Collections

60% of CEOs indicate that they have already made operational changes to address climate change or plan to do so in the next 12 months.<sup>4</sup>

— 2009 PricewaterhouseCoopers 12th Annual CEO Survey

Treasury managers are often surprised to learn how much their paper-based receivables processes cost their companies. It costs thousands of dollars each year to return paper checks and documentation from lockboxes, enter data manually into the accounts receivable system and manually identify and resolve exceptions. It costs thousands more to store these documents in compliance with internal and regulatory guidelines. And customer questions about past transactions lead to additional research costs.

What's more, many companies unknowingly operate redundant processes that generate additional fees and costs. For example, some companies insist on paper back-up copies of imaged checks—and pay the extra processing and courier costs to receive them. Others have not adapted their technology infrastructures and workflows to take full advantage of an image-based process, and they may still manually input receivables data that has already been captured electronically. These companies can take the first step toward lower costs and greater efficiency simply by shutting off the paper flow and leveraging data key/capture features inherent in most electronic treasury tools.

## Calculating the Cost of Paper

J.P. Morgan has created a variety of tools to help treasury managers review current operations, develop a strategy to migrate to a paperless environment and eliminate redundancy by turning off the paper. The Eco Analysis Worksheet on the next page shows potential savings companies can achieve by removing paper from the receivables process. To view and utilize the entire worksheet, visit [www.jpmmorgan.com/eco](http://www.jpmmorgan.com/eco).

This Eco Analysis Worksheet helps companies identify how much money paper-based receivables cost their businesses. It includes not just bank costs, but also such off-the-books costs as labor, transfer costs to buy new technologies and storage fees. The worksheet can also be customized to account for industry-specific differences. In the example, a company with 3,000 paper-based lockbox transactions per month can save \$2,255 per month, or \$0.75 per transaction.

## Reengineering Receivables

In contrast to processing paper, an electronic receivables process mitigates most of these costs. Plus, the environmental benefit of eliminating paper helps compensate for the added energy required to run electronic hardware, operate data centers and dispose of electronic waste. The following best practices for reengineering receivables will provide greater control over receivables processing and enhance operational productivity and environmental performance:

- Take paper out of the invoice delivery and receipt process by using an online bill presentment and payment solution like J.P. Morgan's Pay Connexion<sup>SM</sup>. Customers can phone in payments or use a convenient, customized Web portal to pay invoices and manage payment and account information online.
- Employ a desktop remote capture solution for payments received at company offices. J.P. Morgan offers a variety of such solutions, including Image Deposit Direct and Virtual Remit<sup>SM</sup>. This technology saves time and money by providing quicker access to funds and eliminating trips to the local bank branch and/or overnight courier costs.
- For cash payments received at retail or office locations, retailers can consider an onsite Smart Safe solution, which provides same-day provisional credit. Smart Safe helps protect against theft and provides added security for both employees and cash. This solution reduces both the costs and the environmental impact of transportation, since armored couriers no longer need to pick up deposits daily.

## Receivables Eco Analysis Worksheet

<b>Potential internal monthly savings from paper reduction (inclusive of courier charges)**</b>	<b>\$2,255</b>
Estimated internal savings for each lockbox transaction (exclusive of courier charges)	\$0.75
Estimated internal savings for each lockbox transaction (inclusive of courier charges)	\$0.75

FACTORS	ASSUMPTIONS	FACTORS	ASSUMPTIONS
<b>Paper Generation and Management Cost Assumptions</b>		<b>Paper Storage Assumptions</b>	
Number of lockbox check copies monthly*	3,000	Annual rent per square foot for paper storage	\$25.00
Estimated pieces of back-up for each check	2	Number of years boxes are stored	2
Estimated number of check copies in each batch	50	Number of batches stored in each box	20
Estimated number of batches processed monthly	60.00	Number of boxes filled for storage monthly	3
Number of courier packages delivered per day	1		
<b>Research Assumptions</b>		Estimated square feet dedicated for each stack (1.76 sq ft) (assumes five boxes in each stack with space to move around)	3.5
% of incoming paper copied monthly	10%	<b>Estimated Labor Hourly Rate</b>	
Number of copies generated each month	300	Hourly cost of labor (\$48,000 for 2,080 hours per year plus 10% overtime)	\$18.00
% of items requiring research that are sent outbound by fax or US Mail by the client	5%	Cost per minute	\$0.30
% of items retrieved monthly (files correctly)	3%		
% of items retrieved monthly (incorrectly filed)	2%		

<b>Batch Management Costs Associated with Paper</b>	ASSUMPTIONS	
Receive batches by courier (assumes 22 working days per month)	\$8 per delivery	\$0
Stage and distribute paper back-up to cash application staff for each batch	15 min/batch	\$270
Repackage and account for all transactions for each batch	45 min/batch	\$810
<b>Estimated Monthly Batch Management Costs</b>		<b>\$1,080</b>

<b>Research Costs Associated with Paper</b> (in minutes except where noted)	ASSUMPTIONS	
Cost of each copy made each month	\$0.06 per copy	\$18
Labor cost to send out paper by mail/fax per packet (assumes copies are made of 10% of the checks, and that 5% of checks and check copies will be sent out monthly in packets of 2.7 pieces of paper in each packet at 4 minutes for each packet)	4 min each	\$73
Fax and postage costs for sending paper outbound (assumes 50% faxed at \$.08 [\$.06 for cover sheet + \$.02 for communications cost] and 50% mailed at \$.46 (\$.41 for postage + \$.05 for each envelope)	mail/fax cost \$0.27 per packet	\$17
Cost to retrieve correctly filed remittance information (assumes a 3% retrieval rate)	4 min/item	\$108
Cost to retrieve incorrectly filed remittance information (assumes a 2% retrieval rate and that it takes four times longer to retrieve than correctly filed remittance information)	16 min/item	\$288
<b>Estimated Research Costs</b>		<b>\$504</b>

<b>Costs Associated with the Storage and Disposal of Paper</b>	ASSUMPTIONS	
Labor cost to pick up/prepare batches for storage	15 min/batch	\$270
Labor cost to add batches to storage boxes	10 min/batch	\$180
Cost of purchasing storage boxes	\$4.75 per box	\$14
Cost of renting storage space for boxes generated (assumes box storage for 2 years with five boxes per stack)	\$2.88 # of stacks	\$21
Labor cost to shred documents monthly (assumes 15 documents shredded per minute and the number of documents shredded equals number of copies generated/copied plus back-up)	15 docs/min	\$186
<b>Estimated Costs of Storage and Disposal of Paper</b>		<b>\$671</b>

<b>Total Estimates Monthly Costs Associated with the Receipt, Handling, Storage and Disposal of Paper</b>	<b>\$2,255</b>
<b>Estimated Monthly Client Operational Savings for each lockbox transaction exclusive of courier charges</b>	<b>\$0.75</b>
<b>Estimated Monthly Client Operational Savings for each lockbox transaction inclusive of courier charges</b>	<b>\$0.75</b>

### Other Considerations (not included in calculation)

The estimated cost of legal exposure arising from lost data covered by HIPAA or Sarbanes-Oxley is approximately \$1,000 per document that is lost or compromised.

\*Projections are based on monthly average check volume from 6/1/09 through 6/30/09 for Billing Group 999999999

\*\*An estimate subject to individual characteristics of a client's back office and other factors.

- Encourage customers to submit payments via ACH, wire transfers, credit card or financial EDI. These payments are electronic and provide faster funds availability. To support compliance, send them a simple remittance form they can attach to their payments.
- Take advantage of the image capture and retention tools that banks typically use to automate and improve virtually every kind of receivable. This technology enables them to capture receivables information onsite at the bank—and, in the process, provide faster access to documentation and eliminate the transportation costs to return this paper. Instead of waiting for paper reports to arrive and disseminating them, Treasury staff can use the bank's online channel to improve internal workflow, receive automated exception notices and make same-day exception decisions.
- Review the process for routing receivables information to such departments as credit, accounts receivable and customer service. Utilize an online repository for all receivables-related transactions and image information. Many banks offer such receivables management systems. J.P. Morgan's Receivables Edge<sup>SM</sup> supports search and navigation, provides automated payment alerts, includes workflow tools that enable online collaboration, and allows cash managers to make advanced transaction queries and identify and track exceptions.
- Automate the process of sharing internal reports by circulating them electronically.



## Case Studies

### Challenge

A mid-market electronics distributor's receivables workflow spanned a base of more than 250,000 customers in 170 countries. The company's Operations, Service and Treasury teams faced daily challenges with customer inquiries, account reconciliation and warehousing of the receivables data (e.g., check copies, invoices, client correspondence). The company wanted to upgrade its manually intensive receivables workflow by accelerating cash application. The company also recognized the need to decrease both the infrastructure cost of its current paper-based model and its overall reliance on paper.

### Solution

The company selected a paperless payment-processing strategy that combined its lockbox with an Internet-based receivables solution. The new system included same-day decision making that accelerated funds availability. Other features included advanced image and data capture technology and the ability to consolidate all remittance transactions, whether paper or electronic.

### Results

- Accelerated the cash application process by 24 hours
- Decreased information float by 12 hours
- Reduced bank fees by \$70,000 annually by moving to an electronic environment
- Redeployed full-time employees
- Saved 10,000 pounds of paper and preserved 120 trees annually



## Challenge

A large insurance corporation was looking to streamline its paper-intensive receivables process. It wanted to address three main objectives:

- Reduce paper-related bank fees and avoid a pending increase of bank charges.
- Mitigate the risk inherent in paper-reliant processes.
- Shore up its business continuity plan. (Hurricane Ike had disrupted its Houston operations.)

With an operational presence in eight states and a national customer base, it would be a challenge to implement a solution in a short time frame that could cover all these markets.

## Solution

Partnering with its bank, the client and representatives from the bank's Treasury team cooperatively developed a new workflow process around advanced online technology. They then embarked on a road show to present the new process to all eight divisions, tailoring the demonstration, training and feature applications to each subsidiary's unique needs. The bank's Treasury team was also able to address the company's ancillary need for a more aggressive business continuity plan. The team delivered a paperless solution and implemented it in six months.

## Results

- Reduced annual bank charges by more than \$100,000 and reinvested part of this savings to underwrite the use of a new online receivables tool
- Developed a more aggressive and timely business continuity model that allowed Treasury (or for that matter, any division/subsidiary) to provide uninterrupted cash management support to any part of the company in case of an unplanned business disruption
- Mitigated the risk of paper-based processes by using an electronic tool with defined users/administrative management of access to critical information
- Eliminated more than 1.08 million documents from the receivables workflow, saving an estimated 400 trees annually

## Challenge

A public sector hospital group was looking to trim costs and inefficiencies from its receivables system but was hampered by a very tight budget that did not allow for any in-year increase to its banking costs. With a base of more than 100,000 customers and an impending reduction to its work force, the group needed to quickly implement a more cost-efficient receivables process, speed up implementation and keep any direct impact to its banking costs to a minimum. In addition, the group's antiquated hardware environment made it difficult to support a robust check imaging platform.

## Solution

The hospital found a way to repurpose existing computer monitors at no cost to help with the integration of a new imaging platform. These monitors enabled Treasury staff to execute cash applications from the system (toggling between the bank software and their own internal general ledger model) instead of relying on the next-day delivery of paper materials.

## Results

- Completed on-site training for the remaining staff within just three months
- Realized savings earlier than expected by deploying Receivables Edge<sup>SM</sup>, an Internet-based receivables management application
- Redeployed two staff members because of increased efficiency—saving more than \$75,000 annually and meeting its mandate to reduce infrastructure costs
- Expects to use additional savings to further enhance its treasury operations without adding costs to its banking budget

# Eco-Friendly Disbursements Processing

In 2007, U.S. companies spent about \$8 billion on paper alone, not including costs for ink toner, or for running copiers, printers or fax machines. Xerox estimates for every dollar spent on printing documents, companies incur another six dollars in handling and distribution.<sup>5</sup>

— BusinessWeek

The monthly disbursement process creates a paper trail that goes far beyond checks. Even companies that make payments predominantly via cards or ACH transactions often receive boxes of paper statements and advices each month, which they must pay to either store or securely destroy. In addition, the monthly disbursement process generates ancillary paper reconciliation reports, stop payment advices, ACH notifications of changes (NOCs), U.S. dollar clearing advices, etc.—even though most of this information is already provided via electronic channels.

Over the course of a fiscal year, sending bills and receiving payments can have a significant environmental impact. One company calculates that it consumes 32 tons of paper annually by issuing 583,000 paper checks monthly. This process results in 600,000 gallons of waste water from paper production and 60,000 gallons of gasoline used to transport this paper. The company could save approximately \$175,000 annually by making these payments via ACH or its corporate card.

## The Cost of Paper Disbursements

The Eco Analysis Worksheet below helps identify the potential savings for companies that remove paper from the disbursement process. To view and utilize the entire worksheet, visit [www.jpmmorgan.com/eco](http://www.jpmmorgan.com/eco).

### Disbursements Eco Analysis Worksheet

Potential internal monthly savings from paper reduction (inclusive of courier charges)*		\$820	
Estimated internal savings for each lockbox transaction (exclusive of courier charges)		\$265.24	
Estimated internal savings for each lockbox transaction (inclusive of courier charges)		\$273.24	
FACTORS	ASSUMPTIONS	FACTORS	ASSUMPTIONS
<b>Paper Generation and Management Cost Assumptions</b>		<b>Paper Storage Assumptions</b>	
Number of bank statements monthly	3	Annual rent per square foot for paper storage	\$25.00
Estimated number of checks cleared and returned (Check Enclosures)	2,500	Number of years boxes are stored	2
Estimated number of enclosures in each batch	50	Number of batches stored in each box	20
Estimated number of batches per month	15.00	Number of boxes filled for storage monthly	1
Number of packages delivered per month	1	Estimated square feet dedicated for each stack (1.76 sq ft) (assumes five boxes in each stack with space to move around)	3.5
<b>Research Assumptions</b>		<b>Estimated Labor Hourly Rate</b>	
% of incoming paper copied monthly	10%	Hourly cost of labor (\$48,000 for 2,080 hours per year plus 10% overtime)	\$25.00
Number of copies generated each month	250	Cost per minute	\$0.42
% of items requiring research that are sent out by fax or US Mail by the client	5%		
% of items retrieved monthly (files correctly)	3%		
% of items retrieved monthly (incorrectly filed)	2%		
<b>Batch Management Costs Associated with Paper</b>		ASSUMPTIONS	
Receive batches by courier (assumes 22 working days per month)		\$8 per delivery	\$24
Stage and distribute paper back-up to cash application staff for each batch		15 min/batch	\$94
Repurchase and account for all transactions for each batch		45 min/batch	\$281
<b>Estimated Monthly Batch Management Costs</b>			<b>\$399</b>
<b>Research Costs Associated with Paper (in minutes except where noted)</b>		ASSUMPTIONS	
Cost of each copy made each month		\$0.06 per copy	\$15
Labor cost to send out paper by mail/fax per packet (assumes copies are made of 10% of the checks, and that 5% of checks and check copies will be sent out monthly in packets of 27 pieces of paper in each packet at 4 minutes for each packet)		5 packets/monthly 4 min each	\$8
Fax and postage costs for sending paper outbound (assumes 50% faxed at \$.08 (\$.06 for cover sheet + \$.02 for communications cost) and 50% mailed at \$.46 (\$.41 for postage + \$.05 for each envelope)		\$0.027 mail/fax cost per packet	\$1
Cost to retrieve correctly filed information (assumes a 3% retrieval rate)		4 min/item	\$0
Cost to retrieve incorrectly filed information (assumes a 2% retrieval rate and that it takes four times longer to retrieve than correctly filed remittance information)		16 min/item	\$0
<b>Estimated Research Costs</b>			<b>\$25</b>
<b>Costs Associated with the Storage and Disposal of Paper</b>		ASSUMPTIONS	
Labor cost to pick up/prepare batches for storage		15 min/batch	\$94
Labor cost to add batches to storage boxes		10 min/batch	\$63
Cost of purchasing storage boxes		\$4.75 per box	\$4
Cost of renting storage space for boxes generated (assumes box storage for 2 years with five boxes per stack)		\$2.88 # of stacks	\$21
Labor cost to shred documents monthly (assumes 15 documents shredded per minute and the number of documents shredded equals number of copies generated/copied plus back-up)		15 docs/min	\$215
<b>Estimated Costs of Storage and Disposal of Paper</b>			<b>\$396</b>
<b>Total Estimated Monthly Costs Associated with the Receipt, Handling, Storage and Disposal of Paper</b>			<b>\$820</b>
<b>Estimated Monthly Client Operational Savings for each transaction exclusive of courier charges</b>			<b>\$265.24</b>
<b>Estimated Monthly Client Operational Savings for each transaction inclusive of courier charges</b>			<b>\$273.24</b>

Other Considerations (not included in calculation)

The estimated cost of legal exposure arising from lost data covered by HIPAA or Sarbanes-Oxley is approximately \$1,000 per document that is lost or compromised.

\*An estimate subject to individual characteristics of a client's back office and other factors.

<sup>5</sup> BusinessWeek.com, "The New Push to Get Rid of Paper," Arik Hesseldahl, May 27, 2008.

## Reengineering Disbursements

Electronic solutions exist across the entire disbursement workflow that can eliminate virtually all paper. These solutions can also make treasury operations of both payers and payees more efficient, secure and environmentally sustainable. They also reduce the significant costs of check delivery, administrative security and fraud. The following best practices can help companies eliminate paper generated in the disbursement process:

- Analyze the current disbursement process to identify the paper it generates and the manual steps required to manage it. Calculate the annual cost of the paper using the Eco Analysis tool provided.
- Audit current suppliers and partners to identify additional candidates for electronic payment. Then, explain to suppliers how direct debits or bank-initiated credits offer a more efficient and user-friendly alternative to paper payments. Also, point out that electronic payments reduce the risk of check fraud because they remove touch points from the process.
- Examine opportunities to utilize bank-provided reconciliation services, which match the account numbers, serial numbers and dollar amounts of payments against checks issued. As part of this service, the bank will help reduce the client's workload by reviewing check exceptions and providing electronic reconciliation data that can be fed into a treasury or ERP system.
- Adopt an online disbursement platform like J.P. Morgan's Payables Web Services, which significantly reduces the resources and hours required to initiate payments, research payment status and reconcile accounts. These disbursement platforms also reduce risk by providing safeguards against check fraud.
- Use commercial cards to eliminate or reduce the paper associated with purchase orders and petty cash. Such environmentally friendly solutions as payroll cards, purchasing cards and single-use accounts also eliminate paper checks, envelopes and tax coupons.
- Streamline the business-to-business accounts payable processes, including purchasing, order management and shipping. The J.P. Morgan Order-to-Pay<sup>SM</sup> system automates purchase order delivery, invoice and payment processing, and discount management. By connecting buyers with their suppliers across a secure settlement network, the service automates transaction processing and optimizes working capital.
- Use electronic reporting or Web-delivered reports instead of paper reporting. This practice lowers costs, speeds up reconciliation, reduces treasury workload and improves business continuity.
- Authorize banks to stop returning checks and check enclosures at the end of every month, since these paper copies typically duplicate information that is already provided via the Web.

The evidence shows that ignoring climate change will eventually damage economic growth... The earlier effective action is taken, the less costly it will be.<sup>6</sup>

— The Stern Review

## Case Study

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### Challenge

A government agency was spending \$2.3 million each year on a paper-based process used to disburse 21 million checks. Faced with budget constraints, it considered whether transforming its payables process to rely more heavily on ACH could reduce overhead while boosting service levels and lessening payment fraud risk. Before it could act, the agency needed to understand the cost implications of automated disbursement and develop an implementation strategy.

### Solution

The agency already used its bank's ACH portal for other transactions, so it worked with the bank to evaluate the cost benefit of making the disbursements in question via ACH. The bank's product team also analyzed existing data and identified the best and most immediate opportunities to convert paper checks to ACH transactions. The bank also made available its IT resources to test the new system so it could affect a smooth transition.

### Results

- Migrated 2.7 million check payments to ACH, or 13% of its entire volume
- Leveraged existing ACH processes to streamline the transition
- Eliminated consumption of 42 tons of paper, saving more than 1,000 trees

<sup>6</sup> The Stern Review, November 2007.





# Bringing Paper Reports and DDA Statements Online

In 2007, U.S. companies printed 1.5 trillion pages, according to research firm IDC. That's a 95,000-mile-high stack of paper, or the equivalent of 15 million to 20 million trees.<sup>7</sup>

For global organizations, managing financial data can be a 24/7 activity. Cash and liquidity management is also growing increasingly complex, as data flows between accounts in different countries and between different financial institutions. It's easy to become deluged with paper reports of all kinds—from lockbox detail reports, to account analysis and DDA balance reports, to transaction summary reports, to checks-paid and controlled disbursement funding reports. The last thing corporate Treasury departments need is more paper. Instead, they need the flexibility to access electronic information immediately and generate reports on demand.

## The Cost of Paper Reports

The Eco Analysis Worksheet on the right helps identify the savings opportunities from eliminating paper DDA statements and other paper reports. To view and utilize the complete worksheet, please visit

[www.jpmorgan.com/eco](http://www.jpmorgan.com/eco).

## Reengineering Reporting

Electronic treasury solutions can put an end to cumbersome paper reports. With online access to information via a portal like J.P. Morgan ACCESS<sup>SM</sup>, Treasury staff can access such reports as DDA statements, account reconciliation statements and other notices and information about balance and account activity in real time. This easy access benefits treasury operations in a number of ways:

- Increases productivity, flexibility and control by accessing daily reports online anytime and from anywhere
- Reduces the time and cost of researching transactions by using a Search feature to locate specific transactions by check number

### Information Reporting Eco Analysis Worksheet

<b>Potential internal monthly savings from paper reduction (inclusive of courier charges)*</b>		<b>\$455</b>	
Estimated internal savings for each bank/billing statement (exclusive of courier charges)		\$3.03	
Estimated internal savings for each bank/billing statement (inclusive of courier charges)		\$3.03	
FACTORS	ASSUMPTIONS	FACTORS	ASSUMPTIONS
<b>Paper Generation and Management Cost Assumptions</b>		<b>Paper Storage Assumptions</b>	
J.P. Morgan ACCESS subscribed DDAs	150	Annual rent per square foot for paper storage	\$25.00
Number of DDA pages generated each month	1,200	Number of years boxes are stored	2
<b>Research Assumptions</b>		Number of batches stored in each box	20
% of incoming paper copied monthly	10	Number of boxes filled for storage monthly	60
Number of copies generated each month	15	<b>Estimated Labor Hourly Rate</b>	
% of items requiring research that are sent outbound by fax or US Mail by the client	5%	Hourly cost of labor (\$48,000 for 2,080 hours per year plus 10% overtime)	\$25.00
% of items retrieved monthly (filed correctly)	3%	Cost per minute	\$0.42
% of items retrieved monthly (incorrectly filed)	2%		
<b>Research Costs Associated with Paper (in minutes except where noted)</b>		ASSUMPTIONS	
Cost of each copy made each month		\$0.06 per copy	\$1
Labor cost to send out paper by mail/fax per packet (assumes copies are made of 10% of the statements, and that 5% of these will be sent out monthly in packets of 2.7 pieces of paper in each packet at 4 minutes for each packet)		3 packets/monthly 4 min each	\$5
Fax and postage costs for sending paper outbound (assumes 50% faxed at \$0.08 [\$0.06 for cover sheet + \$.02 for communications cost] and 50% mailed at \$.46 (\$.41 for postage + \$.05 for each envelope)		mail/fax cost \$0.27 per packet	\$1
Cost to retrieve correctly filed information (assumes a 3% retrieval rate)		4 min/item	\$8
Cost to retrieve incorrectly filed information (assumes a 2% retrieval rate and that it takes four times longer to retrieve than correctly filed remittance information)		16 min/item	\$20
<b>Estimated Research Costs</b>			<b>\$34</b>
<b>Costs Associated with the Storage and Disposal of Paper</b>		ASSUMPTIONS	
Labor cost to pickup/prepare work for storage		2 min/batch	\$125
Cost of purchasing storage boxes		\$4.75 per box	\$285
Cost of renting storage space for boxes generated (assumes box storage for 2 years with five boxes per stack)		2.88 # of stacks	\$6
Labor cost to shred documents monthly (assumes 15 documents shredded per minute and the number of documents shredded equals number of copies generated/copied plus back-up)		15 docs/min	\$5
<b>Estimated Costs of Storage and Disposal of Paper</b>			<b>\$421</b>
<b>Total Estimated Monthly Costs Associated with the Receipt, Handling, Storage and Disposal of Paper</b>			<b>\$455</b>
<b>Estimated Monthly Client Operational Savings for each statement exclusive of courier charges</b>			<b>\$3.03</b>
<b>Estimated Monthly Client Operational Savings for each statement inclusive of courier charges</b>			<b>\$3.03</b>

Other Considerations (not included in calculation)  
The estimated cost of legal exposure arising from lost data covered by HIPAA or Sarbanes-Oxley is approximately \$1,000 per document that is lost or compromised.  
\*An estimate subject to individual characteristics of a client's back office and other factors.

- Improves security by designating specific users who can gain access to information with unique ID numbers and passwords
- Eliminates boxes of paper statements and the storage fees associated with them by archiving and storing reports electronically
- Leverages these Web services to improve business continuity plans (Archived electronic reports are much less vulnerable to security breaches and calamities.)

# Case Studies

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## Challenge

A large global bank realized it has sizable opportunities within its internal divisions to eliminate paper. The bank is leveraging the paperless solutions it offers clients to improve its environmental performance.

## Solution

The bank identified the internal groups that had been utilizing the highest volume of paper-based reports and introduced already-available electronic tools that provide access to the same information faster and more cost effectively.

## Results

- Saved more than \$200,000 by reducing paper-based internal reports circulating throughout the bank
  - One group alone saved \$40,000 in printing and storage costs while strengthening its own audit procedures
- Leveraged security features embedded in the tools to monitor and control access to reports and other data
- Saved 32,000 pounds of paper and preserved more than 350 trees



## Challenge

A major diversified company specializing in food products was committed to replacing its current paper workflow with more efficient and cost-effective processes. Its Treasury staff observed that the company was receiving a large volume of paper EDI advices from its operations in more than 70 countries. They partnered with their lead bank's Treasury Services team to convert the operation to an electronic environment.

## Solution

Working together, a team from the bank and the company discovered that the company was not fully leveraging its EDI transmissions for the information it could provide. During a quick informational session, the team also decided that it could discontinue the paper copies of EDI credit and debit advices.

## Results

- Reduced nonbank fees by \$20,000 annually by eliminating the costs of storing unopened advices
- Better leveraged the EDI information it was already receiving from its bank
- Eliminated more than 100,000 paper EDI advices annually that the company was receiving

# Protecting and Managing Documentation

80% of corporate sustainability executives in Fortune 500 companies across North America were planning to maintain or increase levels of sustainability-related spending in 2009, despite economic conditions.<sup>8</sup>

— Panel Intelligence LLC Survey, Cambridge, MA

Many managers still rely on paper documents to manage their business functions, routinely printing out documents and filing them for future use. But this approach exposes companies to business continuity risks. Even minor disasters can destroy paper documents or restrict access to them. Lost archives can disrupt the flow of business. For example, within Treasury, it could make it difficult to manage bank accounts, collect receivables and pay employees and vendors. Lost archives may also impact customer and vendor supply chains if companies have to tell these important stakeholders that they can no longer access their business information.

A paperless environment mitigates these risks by turning paper documents into electronic images stored in an online, centralized document archive. An electronic document management system gives designated employees easy access to document images anytime and from anywhere. It decreases the potential for unauthorized access to sensitive information, especially if secure storage space is limited. And it streamlines operations by reducing clerical activity, making employees more productive and eliminating off-site storage costs.

Companies can use the following best practices to protect and secure their documents and maintain business continuity:

- Develop a document retention strategy for your company that spans a broad range of documents—including customer receipts, vendor contracts, electronic and paper reports, digital forms, data and other documents.
- Create a document indexing system based on requirements of all document users.
- Determine which employees should have remote access to information and establish password controls to manage access.
- Use an online document management platform to create a central repository that can be accessed anytime from anywhere.
- Build new workflow processes for creating, saving, filing and accessing documents that factor in security requirements and regulatory considerations.
- Determine whether to scan documents internally or outsource the scanning process to a qualified third party with robust security credentials and processes.

<sup>8</sup> Panel Intelligence LLC Survey, Cambridge, MA.

# Case Study

## Challenge

The Treasury department of a professional staffing solutions firm wanted to create a replicative process that would advance the organization's commitment to operational efficiency, environmental responsibility and proactive risk management. It aimed to convert all existing treasury documents to electronic forms. And going forward, it would require all forms, requests and documents going to and from Treasury—including bank statements, wire requests, tax payments and benefits payments, to name a few—to arrive electronically. This initiative would also require a new electronic approval process that addressed regulatory and audit issues surrounding approval signatures.

## Solution

Treasury staff began by securing the commitment of internal partners to comply with the new system. They selected a cost-effective document management platform and created common naming conventions that would make documents saved onto a shared drive easy to retrieve. The team then completed all the conversions and developed the process flows and training modules required to support the program. Working with the firm's executives, external auditors and internal assurance group, they also forged an agreement on what constituted an "original" signature for audit purposes.

## Results

- Eliminated the need for on-site and off-site storage
- Liberated the organization from dependence on physical signatures and improved customer service by accelerating the approval cycle
- Increased the bandwidth of the Treasury department by more than 300 hours per year
- Gave Treasury staff the flexibility to work remotely while also strengthening the company's business continuity plan
- Supported environmental goals by reducing carbon emissions and conserving gas as a natural resource
- Saved approximately \$25,000 during the first year, and is on track to save more than \$100,000 firmwide by the end of the second year
- Eliminated more than 22,000 paper documents and close to 200,000 pieces of paper



# Turning Treasury Operations Green

Treasury operations are experiencing the many cost, performance and environmental benefits of a **zero-return** treasury operation. But before they can realize these benefits, they may need to address several internal questions.

## How can a banking partner help simplify and streamline treasury processes?

- Banks can help audit the paper produced, including statements, reports, advices and back-up data packages. The referenced Eco Analysis Worksheets calculate the savings of going paperless based on monthly document volumes.
- Banks can help sell the program internally, develop a rollout strategy, recommend new workflow processes and conduct training on new technologies.
- Banks can help quantify environmental impacts.

## Can going paperless really save money?

- We have included several specific examples of the cost of paper-based operations and of the savings produced by going paperless. In many cases, going paperless funds itself, since new technology purchases are offset by more efficient processes; redeploying Treasury staff; reducing paper, courier and storage costs; and eliminating bank fees for paper reports.
- Companies face significant direct and indirect costs if a natural disaster brings paper-based treasury processes to a standstill. With an electronic archive, companies can store years' worth of information and access it in seconds.

## Will customers and partners care and cooperate?

- By discussing paperless initiatives with both internal and external stakeholders, Treasury staff may discover new ways to improve service and build stronger relationships. For example, they can position their own green treasury practices as a way to respond more quickly to questions about payments.
- Paperless transactions can also help vendors lower their cost structures, so they can price their products and services more competitively.

## Will electronic documents be acceptable to auditors?

- Check 21 opened the door to electronic check imaging by establishing that a paper copy of a check image is the legal equivalent of the original paper check. Since then, legal precedents have cleared the way for other kinds of electronic documents, and auditors are aware of best practices that can ensure compliance. Companies and auditors can work together to define what constitutes a valid signature for audit and approval purposes.
- External and internal auditors are now embracing electronic documents because they make the audit process more efficient.

J.P. Morgan has countless examples of clients who are enjoying the many benefits of green treasury operations. To learn more, please visit [www.jpmorgan.com/eco](http://www.jpmorgan.com/eco) or contact our Go Green team at **888-777-2207**.



## J.P. Morgan and Corporate Social Responsibility

J.P. Morgan is charting a path for sustainable growth by linking its leadership on environmental and social issues with business initiatives to promote growth, profitability, positioning for the future, consistency and longevity. As part of its commitment to eco-friendly practices, J.P. Morgan has streamlined its own operations by turning paper-intensive functions green. Between 2005 and 2008, the bank reduced total paper consumption from 107,268 metric tons to 76,735 metric tons. The 3 million pounds of paper it eliminated is the equivalent of 7 million square feet of forest preserve.

### J.P. MORGAN GREEN TREASURY MANAGEMENT SOLUTIONS

J.P. Morgan is encouraging clients around the world to follow its lead. It offers a variety of products and solutions—including the partial list below—that can make treasury operations environmentally friendly, secure and efficient. For more information, and a complete list, please visit [jpmorgan.com/eco](http://jpmorgan.com/eco).

**J.P. Morgan ACCESS<sup>SM</sup>.** This information reporting tool provides detailed data on cash balances and transactions, liquidity initiations, cash concentration, disbursements, and ACH initiations, including global ACH.

**Payables Web Services<sup>SM</sup>.** Companies use this Internet-based tool to place stop payments, inquire on the status of checks, retrieve check images and resolve positive pay exceptions to reduce the risk of payment fraud.

**Purchasing Cards.** These convenient cards help reduce the cost to process traditional purchase orders and simplify the entire procure-to-pay process. Flexible spending controls help control procurement at all levels of the organization.

**Order-to-Pay<sup>SM</sup>.** Businesses can access a single Web portal that connects them to a global supplier network. They can streamline business-to-business commerce by checking the status of invoices, receiving remittance advices, capturing early payment discounts and resolving queries online.

**Pay Connexion<sup>SM</sup>.** This solution offers a seamless, efficient and flexible way to present and collect payments electronically using a Web site, an IVR system or a call center. It also accommodates payments by ACH and commercial cards. Pay Connexion<sup>SM</sup> engages stakeholders in a green solution that accelerates transactions, streamlines workflow and eliminates paper.

**Receivables Edge<sup>SM</sup>.** This industry-leading online receivables management application combines advanced image and data capture technology with the power of the Internet to deliver a consolidated and timely view of electronic and paper remittance images and related data.

**Desktop Imaging Solutions.** J.P. Morgan offers a number of desktop remote deposit products, including Chase Quick Deposit and Image Deposit Direct, that allow companies to scan and transmit images of checks and other documents on-site. A new lockbox service, Virtual Remit<sup>SM</sup>, enables companies to capture and transmit remittance data and images directly from their desktops with a single scanning device that accepts U.S. denominated checks, coupons, envelopes and full-size documents.

**Smart Safe.** Retailers can use an on-site Smart Safe solution, which provides same-day provisional credit for cash payments received at retail or office locations. Smart Safe helps protect against theft and provides added security for both employees and cash.

J.P. Morgan has countless examples of clients who are enjoying the many benefits of green treasury operations. To learn more, please visit [www.jpmorgan.com/eco](http://www.jpmorgan.com/eco) or contact our Go Green team at **888-777-2207**.

To learn more about J.P. Morgan's commitment to business sustainability, please visit <http://www.jpmorganchase.com/corporate/Corporate-Responsibility/corporate-responsibility.htm>.

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