

Forecasting Check Volumes

The Economics of Check in a Declining Environment

By Bob Seltzer

The United States payment industry built its infrastructure and management principles on the premise of continual check volume expansion – by increasing capacity and productivity, banks and other payment processors could assume increased check volume to maintain or improve profitability. This mindset, until very recently, has seemed justifiable: from 1979 through 1995, annual check volume increased from 32 billion to 49.6 billion; moreover, in 2000, industry experts, looking at trends over several decades, estimated national check volume to increase 65 to 68 billion annually. However, a Federal Reserve Bank check survey conducted in 2001 brought to light that check volume actually totaled 42.5 billion. Though the actual date of initial decline remains in question, the check undoubtedly has become the first payment medium to experience decline, even as total non-cash payments continue to increase.

The annual decline rate, currently estimated at 5 percent, is anticipated to accelerate considerably within the next two to three years, reaching its peak of 15 percent in 2006 before tapering back to 5 percent by 2009 and 2010. By 2010, the total volume decline since 2003 will total 40 percent, though most of this decrease – 25 percent – will occur by the end of 2006, giving check and other payment processors a scant three years to reduce 25 percent of their check processing expenses to maintain current profitability levels.

Following years of capacity build-up, banks now face an environment of accelerating check volume decline, a combination that will drive the unit cost for processing a check upwards unless capacity reduction steps are taken – which presents formidable challenges to the payment industry.

Since check and other payment services in the 25 largest banks account for up to 40 percent of operating revenue, it is important that banks understand the impact this volume decline will have on unit costs and, inevitably, on profitability. As annual decline rates will reach double digits by 2006, banks must act quickly to proactively address these challenges through a combination of careful capacity planning and management, adoption of new technologies and possibly, industry cooperation.

The battle to maintain unit costs and profitability will intensify and will require creative strategies and unprecedented consolidation for banks and other payment processors to ensure ongoing viability of their check processing operations.

Purpose of Study

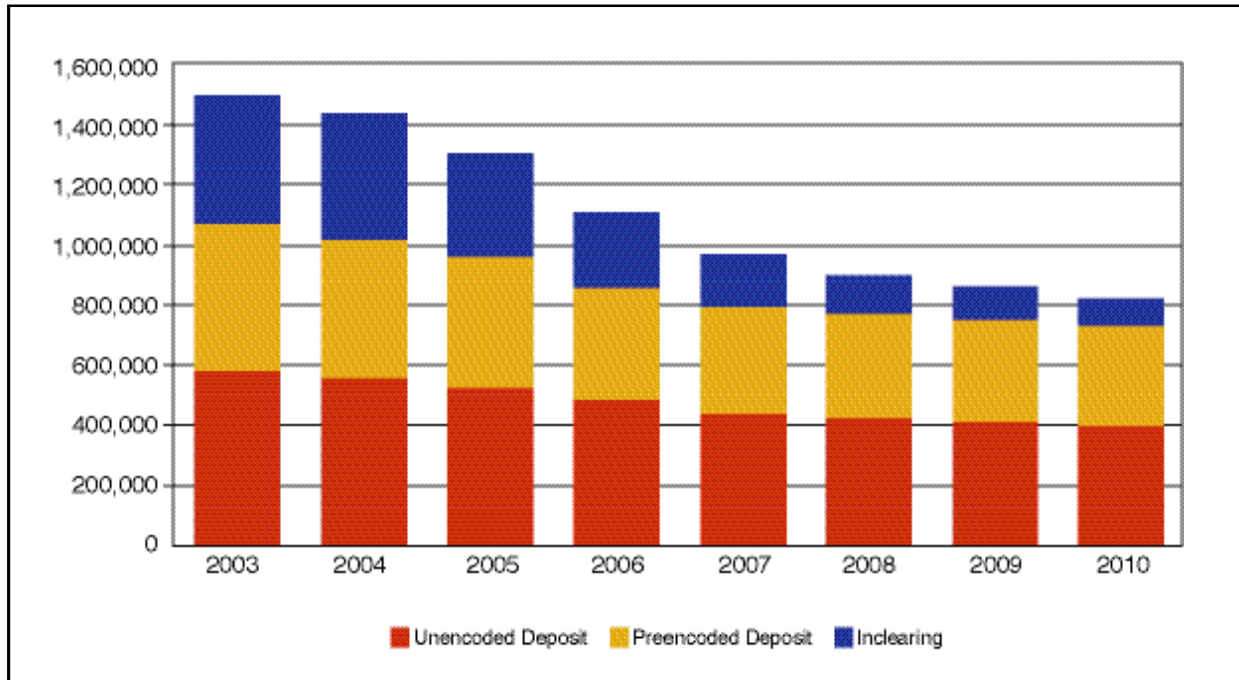
Meta Software Corporation has applied its payment-specific modeling and simulation tools and techniques to better understand and quantify the impact of this volume decline on the economics of a check and to evaluate to what extent reduction of both variable and fixed expenses will mitigate the unit cost increase. This article is a summary of a white paper entitled “The Economics of Check in a Declining Volume Environment” Meta Software Corporation, 2004.

In order to replicate the complex, deadline-driven environment of a check processing operation, and determine future state capacity requirements and unit costs, it was necessary to use a workflow model with a discrete event simulation engine to accurately capture the dynamics of the check processing window – down to the discrete level of sort pattern detail and map costs/expenses to the operational components. In this case, this study applied Meta Payment Enterprise Model (“E-Model”) using volume forecasts in a simulation model of a “prototypical” Day One check processing site to determine how volume driven productivity changes impacted unit costs during the period 2004 through 2010.

Analysis Results

Using the base starting point of the year 2003, Meta produced a representative workflow model and operational specifics of a “conventional image” site within a large bank and input into the simulation the annual check volumes (by product type) as forecasted by Global Concepts. This assisted the analysis of the impact of volume decline on unit costs and on the composition of costs – e.g., variable vs. fixed – within the processing operation.

At the highest level of analysis, the simulation output demonstrated that unit costs indeed will rise each year between now and 2010, most significantly in the 2005-2007 time span, coinciding with the most dramatic period of volume decline. This study predicts that, without any expense reduction efforts, unit costs by



2010 will be 80 percent greater than those in 2003. Even if variable expense reduction is 100% in line with the volume declines, unit costs will escalate to the point of profitability erosion.

Summary of Findings/Recommendations

The detailed unit cost analyses conducted herein demonstrated that unit costs will increase significantly within the next two years, especially as the annual volume decline reaches double digits. This study also exposed less obvious trends and challenges that portend momentous decision making for banks and other payment processors. Most notably:

- Variable expense reduction completely in line with the volume decline will be insufficient to maintain unit costs, resulting in at least a 40 percent unit cost increase as fixed expenses, principally occupancy costs and transportation, assumes a growing share within the cost structure;
- Historically, banks have had very different success rates of matching variable capacity to volume and the gap between high performers (85th percentile) versus the average performers (Median) is large. Therefore, the industry will most likely need to remove at least 50 percent of fixed expenses unless the higher performing banks aggressively acquire new volumes.

These simulation analysis results provide a disturbing peek into the near term impact of volume decline on check and other payment processing operations. By 2006, check volume decline

will exert major pressure on unit costs, eroding profitability unless banks take unprecedented action to reduce the magnitude of this cost escalation.

As the findings indicated, the problem cannot be managed solely through variable expense takeout. What's more, as history points out, banks will have different levels of success in managing labor, resulting in significant price differences across the industry. In light of these developments, the industry will undergo changes in market share as some banks opt to outsource their operations while others elect to aggressively acquire sources for increased check volumes to maintain the economy of scale. The beneficiaries of this consolidation will be the efficient core processors that can acquire new volume from less efficient participants and, thereby, reduce the impact of the industry-wide volume decline on their unit costs. ■

Bob Seltzer is President, Meta Software Corporation. He can be reached at 617-576-1203 or e-mail seltzer@metasoft.com

Sources:

- Oliver, Richard. "Managing the US Payment System for the Future," FRB of Atlanta, presented February 8, 2004 at Global Concepts, Inc.'s Check Forum.
- Federal Reserve Bank. Depository Financial Institution Check Study. November 11, 2001.
- Global Concepts, Inc. (GCI is a payment research and consulting firm that regularly conducts surveys of check volumes and performs industry benchmark studies. GCI provided us with future volume forecasts as well as input as to key productivity parameters (see www.global-concepts.com for more information).
- Radecki, Lawrence J. "Banks' Payments-Driven Revenue," FRB of NY, Economic Policy Review 5, no. 2 (July 1999), 53-70.