

# Creating Substitute Checks under Check 21

## Sample Economic Framework

This document has been prepared as an aid to institutions considering whether to create substitute checks. It is a high level attempt to identify areas of economic impact but it makes no attempt, however, to quantify the value of those impacts. Each institution should use the Sample Economic Framework as a guide in performing its analysis.

The Check 21 Act allows but does not mandate the creation of substitute checks. Additionally, Check 21 does not validate electronic (image) exchanges but the capture of images is an integral part of the creation of substitute checks and the transmission of check images to substitute check print locations is frequently a part of the collection or return of substitute checks. The framework attempts to include the economic elements associated with check image that are relevant to substitute checks.

It is believed that banks with an economic incentive will develop programs in which the creation of substitute checks will be beneficial. The following is a Sample Economic Framework for banks to use in developing their own business case. The different elements necessary to create a substitute check are included as well as the elements that will be reduced in these situations. Banks should use their own costs, float and revenue numbers to complete their own case.

### Analysis Process

- Describe, identify and diagram potential scenarios
- Document assumptions for overall analysis and scenarios
- Develop template (framework) for analysis
  - Identify Additional Costs
  - Identify Costs to be Reduced or Eliminated
  - Identify New Revenues and Other Values

### Potential Scenarios

1. Remote Deposit Taking – These scenarios assume a check is deposited remotely from the BOFD's processing center. Current possible locations may include ATMs and bank branches.
2. Transit Collection – These scenarios assume a check is in the process of collection when it is "truncated". The truncation can occur at multiple places in the collection and return processes, such as at the BOFD or at an intermediary processor. Additionally, checks traveling between two processing locations within a single institution or within a single service provider can be truncated at the upstream location with a substitute check printed at the downstream location.

3. Returns – These scenarios assume a check is being returned by the paying bank and rather than retrieve the physical check, a substitute check is created.
4. Image Exchange – These scenarios assume that the presenting bank sends all images to the paying bank and the paying bank prints substitute checks as needed for their customers. This avoids the issue of identifying which items are eligible for image exchange/truncation and which are not, and eliminates the transportation of those physical items that still need to be sent to the paying banks.

## **Assumptions**

1. Banks will have at least the following options from which to choose:
  - BOFD – Determine whether to convert the original paper check to image.
  - BOFD – Determine whether to convert checks to substitute checks for paying banks that have chosen not to or that are not prepared to accept image files.
  - BOFD – Determine whether to continue sending original paper checks – some or all by endpoint.
  - Paying banks – Determine whether to accept images of checks.
  - Paying banks – Must receive substitute checks in lieu of original checks.
  - Paying banks – May continue to receive original checks in addition to check images and substitute checks.
2. Dual processing systems will be required for the foreseeable future to process paper checks and check images. Banks opting to implement image technology will also be required to handle both substitute checks and original paper transactions.
3. Banks choosing to either send or receive images, will have already invested in image technology and will be using image technology for their internal applications.
4. Banks are just beginning to exchange check images for forward presentment or return of unpaid items.
5. The economics of Electronic Check Presentment (ECP) considerations are not specifically included in the Sample Economic Framework.
6. Transactions that begin as original paper checks and end as original paper checks are not included, since that scenario would be the same as the current processing environment.
7. In the Remote Deposit scenarios, the bank owner of the ATM/Branch is the same as the BOFD.
8. The substitute check that is sent to an intermediary and the substitute check from the intermediary may or may not be the same substitute check. The intermediary may process the substitute check as a paper item or it may image capture the substitute check and generate a new substitute check.

## **Volume Assumptions**

1. The framework should be evaluated based on multiple volume assumptions. Below are examples of three image volume conversion levels.
  - Low image conversion – 10% of total transit check volume converted to images.

- Medium image conversion – 50% of total transit check volume converted to images
  - High image conversion – 80% of total transit check volume converted to images.
2. For each image conversion level, some number of substitute check conversion levels also needs to be assumed. Below are examples of two substitute check conversion levels.
- Low substitute check conversion – 30% of the number of checks converted to images in #1.
  - High substitute check conversion – 60% of the number of checks converted to images in #1.

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## Sample Economic Framework

To be completed for each scenario

### Additional Costs

Parameter	Entity (ies) Impacted	Fixed Cost	Cost / Unit	Units	Total Cost	Comments
Remote Image Capture Equipment						One-time cost for remote location.
Ongoing Equipment Maintenance						
Image Capture						Only at remote location
Image Formatting						Formatting can occur at remote location, BOFD or Intermediary.
Origination of Image Transmission						
Receipt of Image Transmission						
Loading Images into Archive						
Short-term Image Storage						
Long-term Image Storage						
Printing substitute checks						
Additional Volume of Customer Service Inquiries						For customer issues regarding the non-return of original checks.
Customer Service Education						
Destruction of Original Item						Only additional, if bank is currently not routinely destroying checks
Transit Bulk File						Will be required if non-paying bank is required to hold original items for some period of time.

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### Eliminated/Reduced Costs

Parameter	Entity (ies) Impacted	Fixed Cost	Cost / Unit	Units	Total Cost	Comments
Reduced Number of ATM/Branch Courier Pickups and Transportation						
Reduced Number of Check Item Sort Passes						Depending on processes in place, some or all of check passes can be eliminated.
Prime Pass						
Rehandle Pass						
Exception Pass						
Return Item Pass						
Fine Sort Pass						
Value of Freed Up Sorter Pockets						May eliminate need to purchase additional equipment
Reduced Physical Handling and Dispatch of Outgoing Items Dispatch Cash Letter creation						
Reduced Physical Handling of Incoming Items Receipt						
Reduced Clearing Fees from Larger Number of Direct Presentment						
Reduced Cost of Cash Letter Transportation						
Reduction of Storage Cost for Safekept Items						Only for banks that safekeep physical checks for customers.

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### New Revenue & Other Values

Parameter	Entity (ies) Impacted	N/A	Revenue / Unit	Units	Total Revenue	Comments
No New Revenue Identified at this Time						
Value of Accelerated Postings						

$$\text{Benefit/Cost} = \text{Additional Costs} - \text{Eliminated Costs} + \text{New Revenue}$$