

**Banknote Handling Industry Survey**  
**By the Central Bank Cash Machine Group (CBCMG)**

As you may be aware, in the past, the Bureau of Engraving and Printing has been an auxiliary participant in CBCMG activities. In July 2009, the Federal Reserve formally joined the CBCMG, and the BEP will continue to participate. As members, we share the goal of the CBCMG to ensure that future bank notes can be reliably authenticated using automated cash handling equipment. To that end, we are interested in facilitating communications with the manufacturers of bank note handling equipment in general and with your company in particular.

The purposes of this Survey are to: (1) determine discussion topics of mutual interest (**Planning Section**); (2) identify emerging technical challenges involved in authenticating and processing bank notes (**Technical Issues Section**); and (3) evaluate your interest in discussing ways to improve new note introduction and circulation processes (**Business Issues Section**).

**Your Name / Title:**

**Company name:**

**Section 1: Planning**

1. Under a non-disclosure agreement, **would your company be interested in participating in bi-lateral meetings** with US members of the CBCMG? Please note that the information gathered at such meetings would not pass outside the participating central banks and BEP.

<b>Y</b>	<b>N</b>
<input type="checkbox"/>	<input type="checkbox"/>

Comments:

2. During bilateral meetings, would you be interested in discussing the following topics?

	<b>Y</b>	<b>N</b>
(a) Update on features to authenticate banknotes	<input type="checkbox"/>	<input type="checkbox"/>
(b) Update on current authentication technologies	<input type="checkbox"/>	<input type="checkbox"/>
(c) Issues related to fitness standards	<input type="checkbox"/>	<input type="checkbox"/>
(d) Techniques for fitness sorting	<input type="checkbox"/>	<input type="checkbox"/>
(e) Issues related to substrates (e.g., currency paper)	<input type="checkbox"/>	<input type="checkbox"/>
(f) Issues related to quality control	<input type="checkbox"/>	<input type="checkbox"/>
(g) Development of different types of banknote processing machines	<input type="checkbox"/>	<input type="checkbox"/>
(h) Challenges for machine authentication/fitness sorting	<input type="checkbox"/>	<input type="checkbox"/>
(i) Potential new technologies for machine processing	<input type="checkbox"/>	<input type="checkbox"/>
(j) Potential new machine readable features	<input type="checkbox"/>	<input type="checkbox"/>
(k) Upcoming new note introductions	<input type="checkbox"/>	<input type="checkbox"/>
(l) Other:	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Confidential

3. On which issues could we communicate to you that would benefit you most?

- |                         | Y                        | N                        |                      | Y                        | N                        |
|-------------------------|--------------------------|--------------------------|----------------------|--------------------------|--------------------------|
| (a) Note specifications | <input type="checkbox"/> | <input type="checkbox"/> | (b) Future plans     | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Note quality        | <input type="checkbox"/> | <input type="checkbox"/> | (d) New technologies | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) Other:              |                          |                          |                      |                          |                          |

Comments:

4. If your company would like to communicate with us, is technical information coming from your:

- Local office ?                       Head Office ?   
Other location?

How often?

Please provide two contacts:

Name: \_\_\_\_\_ Tel: \_\_\_\_\_  
Title: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_

Name: \_\_\_\_\_ Tel: \_\_\_\_\_  
Title: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_

## Section 2: Technical Issues

In this section, we aim at identifying emerging issues confronting your industry and at identifying areas of collaboration for the next generation of bank notes. **Please note that your answers will serve as a basis for the bilateral meetings.**

We would like to better understand the nature of your business to facilitate discussions and understand technical requirements.

1. We have segmented the market into the following groups. Please indicate whether this is an appropriate segmentation, and if not, please suggest proper terminology on the line below.

(a) Single Note Scanner (validation only) **Y** **N**

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(b) Automatic Note Acceptors (acceptance and validation)

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(c) Automatic Note Dispensers (ATM's) (counting and dispensing only)

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(d) Note Recyclers (acceptance, validation, counting and dispensing)

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(e) Counters and Sorters (Back Office) (counting, sorting and validation)

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(f) High Speed Processors (high accuracy multi-detector counting, sorting, validation and packaging)

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Comments on market segments:

2. In general terms are you experiencing any problems with machine authentication/processing caused by:

(a) Loss of efficacy of a feature due to counterfeiting)? **Y** **N**

Comments:

(b) Loss of efficacy of a feature due to wear in circulation)? **Y** **N**

(c) Public knowledge of security features (IR, magnetics...)  
Comments:

**Y**   **N**  
  

(d) An inadequate number of machine readable features?  
Comments:

**Y**   **N**  
  

(e) Inadequate design / location of the features?  
Comments:

**Y**   **N**  
  

(f) Note production variability?  
Comments:

**Y**   **N**  
  

(g) Other factors?  
Comments:

**Y**   **N**  
  

3. When accommodating an upgraded banknote or a new currency design, what have been your greatest technical challenges?

4. In what way can banknotes evolve to alleviate these challenges?

5. In recent years, have you changed detection specifications or technologies:

(a) to look at any feature in a more sophisticated way?  
If yes, in what way?

**Y**   **N**

(b) to look at another feature in banknotes?  
If yes, which feature?

**Y**    **N**  
   

6. Is your company developing or considering next generation technologies for banknote authentication:

(a) for commercial reasons?

**Y**    **N**  
   

(b) as a result of counterfeiting?

**Y**    **N**  
   

If yes, what type of machine-readable features could be useful in the next generation of currency notes?

Any other comments?

**Section 3: Business Issues**

In this section, we look to evaluate your interest in discussing ways to improve new note introduction processes. **Technology topics/issues will be addressed in bilateral meetings.**

1. Would your company be interested in participating in an industry-wide gathering to exchange experiences gained during the introduction of new currency notes? **Y** **N**

If yes, would your company be willing to discuss its experience by preparing a presentation on the process involved? **Y** **N**

Comments:

2. Are there other issues you feel could be usefully discussed at an industry-wide gathering? **Y** **N**

If yes, which ones:

3. Are the in-house / on-site preview sessions of new note-design helpful? **Y** **N**

4. Are current test-deck designs with variations helpful to you to develop your algorithm? The CBCMG has already established a regular biannual conference with your industry. Outside the interactions already established with BEP and CTO, are there other ways that we can discuss topics with your company?

Comments:

Any other comments?

***Thank you for taking the time to answer these questions.***