



BANK OF CANADA
BANQUE DU CANADA

Selecting, Developing and Designing the Visual Content for the *Polymer* Series

A Review of the Process

October 2014

This document provides a summary of the activities undertaken by the Bank of Canada to review the process of selecting, developing and designing the visual content for bank notes.

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Executive Summary

Context

In 2011, following a multi-year development process, the Bank of Canada issued the first note in the *Polymer* series of bank notes. This new bank note series incorporated enhanced security features and new visual designs. The process that the Bank used to select, develop and design the visual content for the *Polymer* series has been reviewed to fulfill a commitment made by former Governor Mark Carney in August 2012.

The key findings from the review are summarized as follows.

Strengths

- The governance structure was effective: it facilitated collaboration and enhanced decision making.
- Activities were guided by sound project-management principles and practices.
- Lessons learned and expertise gained from the design of the previous series were leveraged.
- The consultation process was consistent with that used by other central banks and similar organizations.
- Collaborative and effective relationships were maintained with stakeholders, partners and suppliers.

Weaknesses

- Public consultation was limited to qualitative research, the results of which cannot be considered to be statistically representative.
- The design criteria for the development of the *Polymer* series were not validated through public consultations.
- Commitment to an aggressive timeline for issuing the new series had an impact on design decisions.
- Basic conceptual models that were tested with focus groups did not follow the normal approval process.
- The design principles were not applied consistently throughout the design process.
- Public consultations occasionally lacked sufficient direction.

Opportunities for Improvement

- Implement a consultation methodology that increases public engagement.
- Formalize design principles and embed them within the process as a checklist to guide decisions throughout the project.
- Each identifiable visual element of any new bank note design should be vetted by subject-matter experts.
- Promote greater transparency around the design process.
- Measure public approval following issue.

A full list of the strengths, weaknesses and opportunities for improvement related to the process for selecting, developing and designing the visual content for the *Polymer* series can be found in the Summary of Analysis on pages 4–6. In addition, several non-process-related recommendations are provided.

Background

The Bank of Canada is responsible for supplying Canadians with bank notes that they can use with confidence. This means issuing quality bank notes that are secure against counterfeiting and are readily accepted. In 2011, the Bank of Canada issued the first note in the *Polymer* series of bank notes. Safer, cheaper and greener, this was the first Canadian bank note series to be printed on polymer material.

The development of a new series of bank notes is a multi-year effort, involving numerous stages, including research, development, design, production, issuance, distribution and education. Work on the *Polymer* series began in 2006, and the final two denominations were issued in November 2013.¹ With any new series, security is paramount, and the development of security features is inextricably linked with the visual content.

Since 1935, each time the Bank of Canada has issued a new series of bank notes, the theme and designs of the previous series are retired and replaced with new visual content. Other features of our bank notes (e.g., colour and size) are retained to help people quickly identify each denomination and to minimize the adjustments to note-handling equipment. Since the *Scenes of Canada* series was issued in the 1970s, the same portrait subjects have been retained for each denomination (e.g., Sir Wilfrid Laurier’s portrait on the \$5 note), for continuity and in recognition of their historical significance to Canada.

This report reviews the process involved in selecting, developing and designing the visual content for the *Polymer* series (Appendix A). Throughout the process, consultations were held with Canadians and subject-matter experts to assist with the identification, selection and development of the subject matter and images for each of the five denominations (Appendix B). A third-party consulting company (The Strategic Counsel) was hired to conduct this research.

Process Review Methodology

In reviewing the process, the following tasks were completed.

- A working group was established.
- Internal processes for the development of the *Polymer* series were reviewed and discussed with members of the project team.
- Other central banks and similar institutions were consulted to establish a benchmark for best practices.
- A third-party research firm (Environics Research Group) conducted an independent review of the Bank’s public-consultation process (Appendix C).

¹ The \$100 note was issued on 14 November 2011; the \$50 note on 26 March 2012; the \$20 note on 7 November 2012; and the \$5 and \$10 notes on 7 November 2013.

Objectives

The review of the design process for the *Polymer* series set out to:

- assess the effectiveness of the process followed to select, develop and design the visual content for the *Polymer* series of bank notes;
- identify strengths and weaknesses, as well as opportunities for improvement; and
- provide additional recommendations for the next bank note development process.

Scope

- This review was limited to the process used to select, develop and design the visual content for the bank notes and did not address decisions around security features, functionality, size, etc.

Legislative Context

- The Bank of Canada leads the design and development of new bank notes. The Minister of Finance is responsible for approving the form and material of all bank notes, which includes the visual content (Section 25 of the Bank of Canada Act).

Summary of Analysis

Strengths

- A governance structure, made up of senior decision-makers at the Bank and the Department of Finance, as well as the Minister's Office, was effective in developing the subject matter for each denomination.
- Activities were guided by project-management principles and practices, resulting in effective use of resources and good project documentation.
- The project team leveraged the lessons learned and the expertise gained from the design process for the previous (*Canadian Journey*) series.
- The public-consultation process involved a good cross-section of the Canadian population, consistent with the practices of other central banks and similar organizations.
- Relationships with subject-matter stakeholders, internal and external decision-makers, design partners, and suppliers of bank note material were collaborative and effective.
- The issue of the *Polymer* series was supported by effective communication tools.

The Bank of Canada Act

Sole right of note issue

25. (1) The Bank has the sole right to issue notes and those notes shall be a first charge on the assets of the Bank.

Arrangements for issue

(2) It is the duty of the Bank to make adequate arrangements for the issue of its notes in Canada and to supply those notes as required for circulation in Canada.

Denominations

(3) Notes of the Bank shall be in such denominations and shall be printed and signed or otherwise executed as the Governor in Council by regulation determines.

Form and material

(4) The form and material of the notes of the Bank shall be subject to approval by the Minister, but each note shall be printed in both the English and French languages.

Notes previously printed

(5) Notwithstanding anything contained in this section, each note of the Bank printed before June 23, 1936, whether issued before, on or after that date, is a valid and binding obligation of the Bank.

Distinction

(6) Notes of the Bank are neither promissory notes nor bills of exchange within the meaning of the Bills of Exchange Act.

R.S., 1985, c. B-2, s. 25; 2001, c. 9, s. 198.

Weaknesses

- Public consultation was limited to qualitative research. While extensive, the results of this qualitative research could not be considered to be statistically representative of the Canadian population.
- The criteria used to guide the selection of the theme and subject matter were produced internally, and were primarily influenced by the results of public consultations conducted during the development of the previous series (*Canadian Journey*).² These criteria were not validated through public consultations for the development of the *Polymer* series.
- Commitment to an aggressive timeline for the new series affected the design decisions, and time pressures were often a factor in the decision-making process.
- Basic conceptual models³ tested with focus groups did not follow the formal approval cycle (full discussion by the steering committee and approval by consensus); therefore, some preliminary designs did not benefit from the rigorous checks afforded by the governance structure. This led to some images being released for testing in public consultations that were inconsistent with internal principles guiding the final design.
- Public consultations lacked sufficient direction at times. Broad questions diverted attention from the purpose of the focus groups, and the information captured was not in keeping with the goals of the consultations. More precise questions may have generated more focused discussions among participants and captured the information needed to support the development of the designs.
- Terminology was used inconsistently. A glossary of terms did not exist, and it was commonplace for terms to be used interchangeably, in ways that did not correspond to their intended definitions, occasionally causing some miscommunication.

Opportunities for Improvement

- Implement a consultation methodology that increases public engagement by investigating ways to solicit ideas and input on the visual content from a greater number of Canadians throughout the design process. This could include leveraging the use of new technologies (e.g., online methods) to enable a more inclusive and broader public-consultation process.
- Formalize and validate clear design principles and embed them as a checklist to guide decisions throughout the process of selecting, developing and designing the visual content for bank notes.
- Design principles should affirm the scope and purpose of the visual content: identify which elements are subject to change with a new series, and better define the process by which the decisions on visual content are to be made and communicated, including establishing criteria for the selection of subject matter.
- Each identifiable visual element of any new bank note design should be vetted by subject-matter experts to ensure accuracy for the depiction on the bank note and their descriptions in communication materials.

² This series of bank notes was issued between 2001 and 2006.

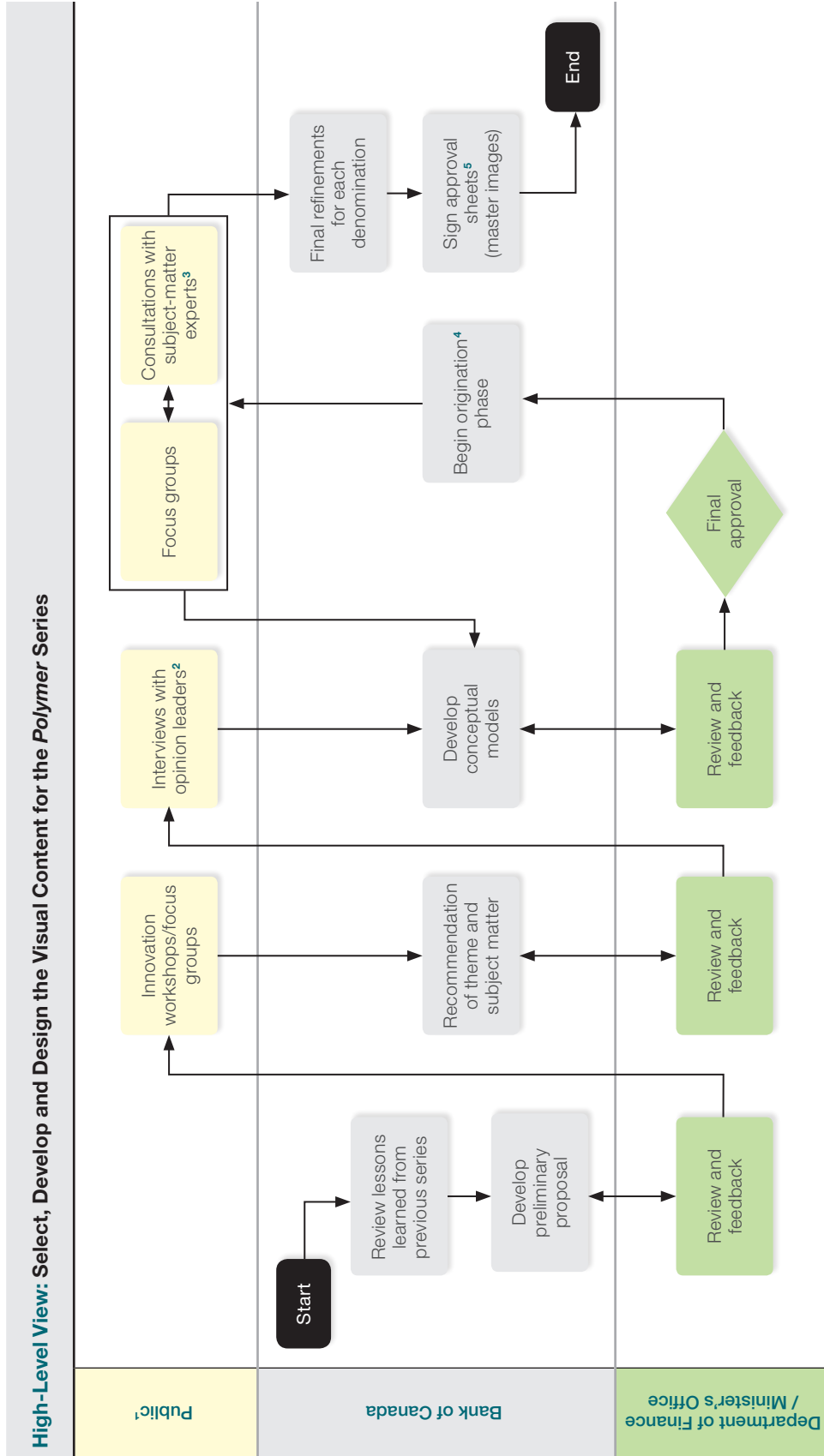
³ A basic conceptual model is a low-grade graphical representation of a bank note that provides an impression of the proposed design (aesthetics, layout and colours).

- Promote greater transparency around the Bank’s methodology and decision-making process for visual content by publishing, in a timely manner: (i) design principles for bank notes, (ii) summary reports from consultations, and (iii) design information backgrounders on subject matter.
- Improve information-management practices:
 - streamline documentation management to facilitate collaboration across the project team, including a consistent glossary, while ensuring that risks are mitigated and knowledge-retention needs are met;
 - re-evaluate how information is classified internally and shared with key stakeholders to ensure that the level of security is appropriate; and
 - leverage technology to enhance communications with stakeholders.
- Develop a methodology to measure public acceptance of a new bank note design once the note has been issued. This measure should examine whether our bank notes meet the expectations of a majority of Canadians.

Additional Recommendations (Non-Process-Related)

- Leverage our partnership with the Canadian Bank Note Company, Ltd. (CBN) by working closely with bank note designers during the development process to facilitate ongoing revisions.
- Strengthen guidelines for consultations with subject-matter experts to clarify how they are chosen and engaged, and how their advice is used.

Appendix A



1 Public consultations with Canadians occurred throughout the process of selecting, developing and designing the visual content for bank notes, which took place over a period of four years (2008–12).

2 The opinion leaders interviewed were Canadian academics and journalists.

3 The subject-matter experts consulted consisted of experts on the theme for each denomination (e.g., Canadian Space Agency, Vimy Foundation, medical research).

4 The origination phase is the process of creating the plates and materials required to print bank notes on a large scale. It takes, on average, from 4 to 6 months to complete.

5 Approval sheets are signed by a senior technical resource. Approval sheets are used by the printers during production as a reference to ensure that notes will be printed within established tolerances. Approval sheets are created at each stage of the printing process, over a period of 10 to 12 weeks.

Appendix B

The *Polymer* Series Consultations

Since 1935, each time the Bank of Canada has issued a new series of bank notes, the theme and designs used for the previous series are retired and replaced with new visual content. Other features of our bank notes (e.g., colour and size) are retained to help people quickly identify each denomination and to minimize the adjustments to note-handling equipment. Since the *Scenes of Canada* series was issued in the 1970s, the portrait subjects⁴ for each denomination have been retained, both for continuity and in recognition of their historical significance to Canada.

For the *Polymer* series, ideas for bank note images were generated by Canadians who were part of an extensive consultation process to determine themes and subject matter, in keeping with certain criteria established before the consultations started (see below). The process began with a series of idea-generating innovation workshops, involving 175 Canadians in seven cities across Canada. These workshops were designed to allow participants the freedom to generate the widest possible range of suggestions for visual content, consistent with several internal guiding principles (e.g., avoiding depictions of living persons other than the Queen).

The list of concepts was then narrowed down, taking note design and other technical specifications into consideration. Specifically, each proposed image concept for this series had to meet the following design criteria:

- conveys pride and confidence in Canada;
- is distinctly Canadian;
- is modern and forward looking;
- promotes Canadian values; and
- will not easily become outdated.

Among other factors taken into consideration were:

- past note designs;
- the feasibility of effectively rendering the concepts on a bank note, from a technical, colour and security perspective; and
- ease of explaining the concepts.

A shorter list of image concepts was then tested in focus groups consisting of a cross-section of Canadians (112 participants in eight consultation sessions across the country). In addition, 16 interviews were conducted with opinion leaders (academics, former journalists) for sensitivity and risk testing. From these ideas, the Minister of Finance⁵ selected five image concepts that were turned into conceptual models for bank notes with the help of subject-matter experts and the design team at the Canadian Bank Note Company, Ltd.

Before final approval by the Minister of Finance, the proposed designs were again tested with Canadians in focus groups (64 participants in eight sessions across the country).

⁴ Her Majesty Queen Elizabeth II and former prime ministers Laurier, Macdonald, King and Borden

⁵ The Minister of Finance has the ultimate decision-making authority for the visual content of Canadian bank notes. The Bank of Canada Act requires the approval of the Minister of Finance regarding the form and material of any new bank note series to be issued.

Three final rounds of focus groups (176 participants in 22 sessions) were conducted as the designs were being finalized.

In total, 543 Canadians,⁶ representing a cross-section of men and women, younger and older Canadians, new and established Canadians, French- and English-speaking Canadians, and Aboriginal Canadians were involved in generating ideas and refining the concepts for what now appears on our polymer bank notes.

The theme of the *Polymer* series is “frontiers,” and the images chosen fall within this unifying theme, representing Canada’s exploits and achievements, particularly those in science, technology and exploration.

⁶ This does not include the 64 subject-matter experts who were consulted.

Appendix C

Highlights of *Design Consultation Process Review*, Prepared by Environics Research Group

In preparing its most recent series of bank notes, the Bank of Canada undertook an extensive program of marketing research to generate ideas for, and to gather reactions to, the visual content of the notes.

The Bank of Canada consultation took the form of standard/traditional qualitative market research.

- This research was effective at achieving its specific objectives of generating ideas for, and gathering reactions on, the visual content of the notes—essentially creative development and testing.
- According to qualitative standards, this research program provided very good coverage: approximately 600 Canadians were included across the range of projects, including Canadian citizens, newcomers to Canada, Aboriginal people, and specific age cohorts, as well as cash handlers and certain subject-matter experts.
- Qualitative research is an appropriate methodology for creative development and concept testing and is known for providing deep and rich insights.
- This approach was consistent with the Bank of Canada's security objectives in that participants and facility staff signed non-disclosure agreements.
- An important limitation of this qualitative research program is that (despite the good coverage provided) it cannot be considered representative of the population.
- The program was closed to the general public in the sense that it was limited in scope and was by invitation only.
- The research appears to have achieved its objectives from a design perspective.

This marketing research was appropriate for the objectives it was designed to address. In the future, a broader and more open public consultation may be appropriate.