



Federal Accounting Standards Advisory Board

August 14, 2018

Memorandum

To: Members of the Board

Robin M. Gilliam

From: Robin M. Gilliam, Assistant Director

Wendy M. Payne

Through: Wendy M. Payne, Executive Director

Subject: **Risk Assumed/Risk Reporting¹ TAB F**

MEMBER ACTIONS REQUESTED:

Provide answers to the four questions presented in this memo by August 22rd.

MEETING OBJECTIVE

Review the Measurement Uncertainty Framework, review project name, and determine next steps.

BRIEFING MATERIAL

Briefing material includes this staff memorandum and the following attachments and appendix:

Attachment 1: Measurement Uncertainty Research & Analysis

Attachment 2: Journal of Accountancy, At War—*Disclosure of Measurement Uncertainties*, December 1998

Attachment 3: Department of Education, 2017 MD&A, pages 10-12

Appendix A: Risk Assumed – Phase II: Project History and Milestones

¹ The staff prepares Board meeting materials to facilitate discussion of issues at the Board meeting. This material is presented for discussion purposes only; it is not intended to reflect authoritative views of the FASAB or its staff. Official positions of the FASAB are determined only after extensive due process and deliberations.

BACKGROUND

The project has been focused on how to provide concise, meaningful, and transparent risk assumed information since phase II began in October 2016. See Appendix A for a complete history of project and milestones.

At the October 26, 2017 meeting, the Board requested that staff develop a framework for how to discuss measurement uncertainty (MU).

STAFF ANALYSIS and RECOMMENDATIONS

This is not the first time accountants have considered how to disclose measurement uncertainties. In December 1998, the Journal of Accountancy published an article entitled *At War—Disclosure of Measurement Uncertainties* [See Attachment 2]. In addition to discussing a long-standing concern about how to disclose measurement uncertainties in GAAP statements, the article simply recommends disclosing which assets and liabilities include estimates that are subject to significant measurement uncertainties. ***Users better understand cash flows, opportunities, and risks when disclosures include how the reported amounts were derived with an explanation about the estimates, assumptions, and judgements used in their measurement.***

WHAT ARE ACCOUNTING ESTIMATES?

According to paragraph 171 of Statement of Federal Financial Accounting Concept (SFFAC) 1, an accounting estimate is an allocation of the cost of past transactions based on **assumptions about future financial sacrifice or cost** to successfully “fix” or conclude the past event.

171. At the initial stage of the accounting process, the information about assets and liabilities is merely the result of assigning all or part of the value of certain transactions to the future. “Assets” and “liabilities” at this stage are *not* statements about future benefits or sacrifices that can be proven or disproven. They are allocations of the cost of past transactions based on assumptions about future benefit and sacrifice.

The following are examples of accounting estimates:

1. uncollectible receivables and inventory obsolescence,
2. PP&E salvage values and useful lives,
3. liabilities arising from warranties or guaranties,
4. cash flow projections for social insurance or subsidy programs,
5. estimated royalties, and
6. liabilities resulting from risk assumed events.

ESTIMATION UNCERTAINTY & HOW IT IMPACTS FINANCIAL STATEMENTS?

*Estimation uncertainty means the susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement.*² Measurement cannot be precise because it is based on models and assumptions about future conditions and events. Since we cannot see into the future we cannot predict full future costs on an existing event. However, we can project based on trends studied and other risk drivers such as assumptions.

Because of estimation uncertainty there is a risk that account balances may significantly change from the prior period resulting in a material misstatement that needs to be adjusted in the current reporting period.

HOW USERS PROCESS UNCERTAINTY³

Behavioral scientists note that individual decision makers generally exhibit one of two cognitive styles when processing information; heuristic or analytic. Each approach is simply the way a person makes a decision. The heuristic approach is intuitive whereas the analytic approach is systematic.

Past studies have shown that individuals are poor intuitive statisticians and when confronted with complex situations containing uncertainty, they usually default to the heuristic approach when making decisions. More recent studies seem to confirm this noting that when people are thinking about more routine or simple issues, the brain areas associated with rational planning (such as the pre-frontal cortex) tend to be more active. However, when they think about more difficult or complex matters the brain areas associated with emotion become more active. In essence, the belief that humans make rational economic decisions is being challenged by research on brain activity.⁴

Lastly, user bias also plays a significant part in decision making in two forms: anchoring and functional fixation. Anchoring is the tendency to over rely on a single piece of information when making decisions and in so doing, discounting the potential importance and impact of the other pieces of information. Functional fixation creates a closed state of mind or mental block. The closed state of mind guards users against a situation of "over thinking." A mental block limits their ability to use all the information pieces given to them to render a decision or complete a task. Such biases enable users to reach fast decisions but often with sub-optimal answers.

² Australian Government Auditing and Assurance Standards Board AUASB Glossary (2009)

³ Eggleton, Ian R. *Patterns, prototypes, and predictions: an exploratory study*. Journal of Accounting Research. The Institute of Professional Accounting, Graduate School of Business, 1976.

Swieringa, Robert; Gibbins Michael; Larsson, Lars; and Janet Lawson Sweeney. *Experiments in the Heuristics of Human Information Processing*," Journal of Accounting Research. 1976

⁴ *Economics and the brain: how people really make decisions in turbulent times*. Paul Harrison. February 20, 2012. The Conversation.

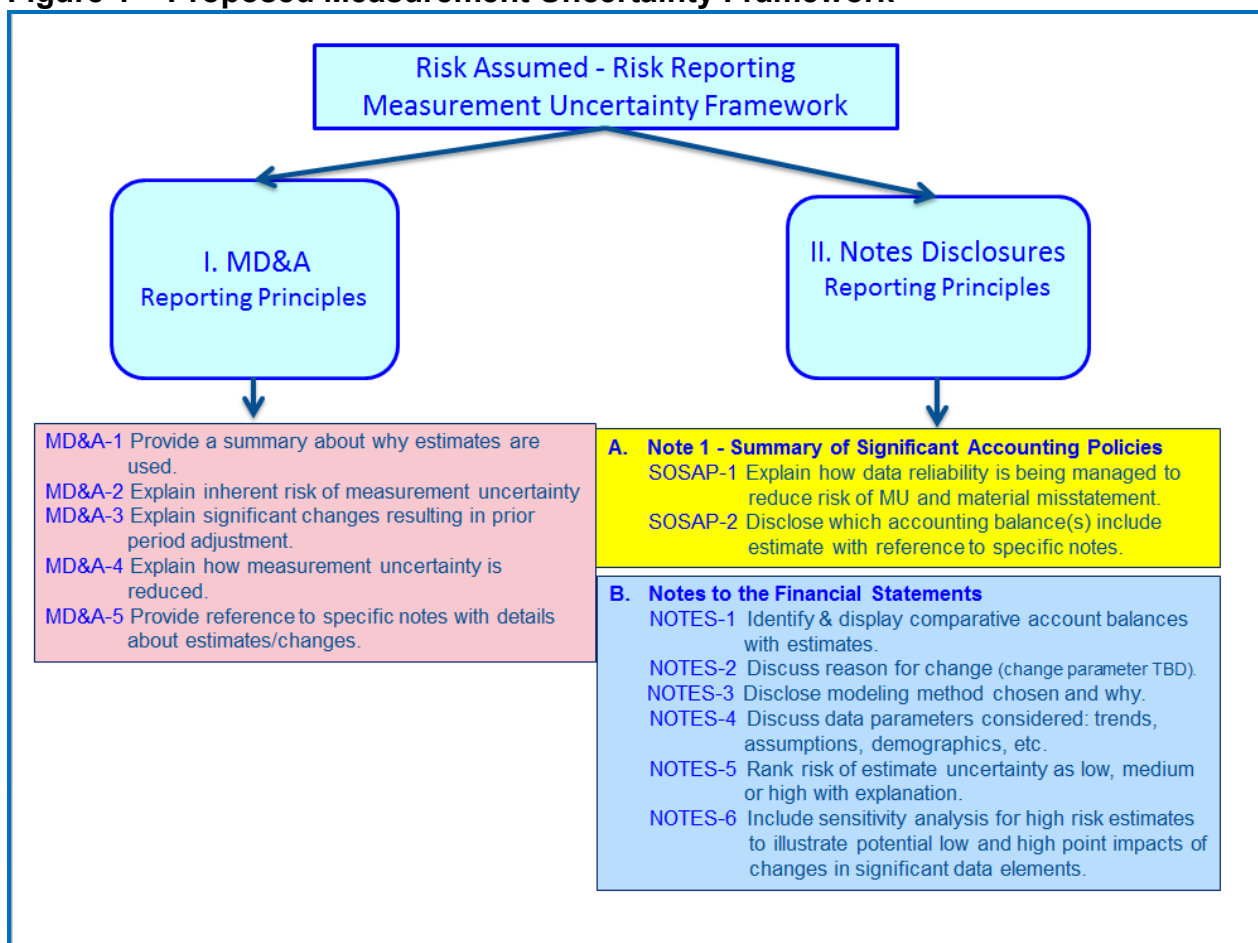
As a result, the burden seems to fall on the respective **accounting framework** to help ensure that users have enough information to understand processes and make sound financial decisions.

To develop a framework, staff reviewed nine accounting standard-setter documents, six agency policy and procedure documents, eight academic documents, and eight auditing standard-setter documents concerning measurement uncertainty.

Each of the 31 items was reviewed for a suggestion for how to report on measurement uncertainty in agency financial reports. The 31 suggestions were analyzed to develop a framework of reporting principles for measurement uncertainty. A summary of the suggestions and mapping to reporting principles can be found in the Research and Analysis Mapping to Measurement Uncertainty Reporting Framework on page 3 of Attachment 1.

As a result of this analysis, staff developed the following principles for reporting measurement uncertainty in the Management's Discussion and Analysis (MD&A), Note 1 – Summary of Significant Accounting Policies (SOSAP), and financial notes (NOTES).

Figure 1 – Proposed Measurement Uncertainty Framework



This framework will provide information that users can process, understand, and apply about estimates, measurement uncertainty, and the potential impact of material misstatement in financial statements.

I. ESTIMATES & MEASUREMENT UNCERTAINTY REPORTING IN MD&A:

Staff found suggestions from 17 of the 31 research items that could improve MD&A information for users to process and understand what an estimate is, risk mitigation around measurement uncertainty of estimates, and estimates' impact on the financial statements.

As a result, staff recommends the following five improvements for reporting measurement uncertainty in MD&A:

- MD&A-1: Provide a summary about why and where estimates are used.
- MD&A-2: Explain inherent risk of measurement uncertainty
- MD&A-3: Explain significant changes resulting in prior period adjustments.
- MD&A-4: Explain how measurement uncertainty is reduced.
- MD&A-5: Provide references to specific notes with details about significant estimates changes.

The following is the analysis mapping research suggestions to measurement uncertainty reporting principles for MD&A.

Research & Analysis -->				Measurement Uncertainty Reporting Principles Framework				
				MD&A				
Count	original #	Research Group	Summary suggestions for reporting	MD&A-1	MD&A-2	MD&A-3	MD&A-4	MD&A-5
1	4	Agency-4	Annual re-estimates for completing major projects				X	X
2	5	Acct Stds-2	Annual re-estimates/Material balance changes; risk mitigation				X	X
3	8	Auditing-4	Assumptions; measurement uncertainty		X		X	X
4	9	Auditing-5	Assumptions; measurement uncertainty	X	X	X	X	X
5	10	Academic-3	estimation uncertainty & material misstatement	X	X	X		X
6	11	Acct Stds-4	Link to outside info re estimate development		X		X	X
7	12	Auditing-6	Management of significant measurement uncertainty	X	X	X	X	X
8	13	Academic-2	Measurement Uncertainty - trend Information		X			X
9	14	Academic-7	Mitigate & stabilize estimates; measurement uncertainty		X			X
10	15	Academic-8	Mitigate & stabilize estimates; measurement uncertainty		X			X
11	18	Auditing-8	Risk identification and mitigation		X		X	X
12	20	Academic-6	Risk identified		X			X
13	21	Acct Stds-1	risk mitigation and measurement uncertainty	X	X		X	X
14	22	Auditing-2	Risk mitigation to address estimate reliability	X	X	X	X	X
15	23	Agency-6	Risk mitigation; sensitivity analysis; modeling decisions				X	X
16	24	Auditing-1	Risk of material misstatement; estimate reliability	X	X	X	X	X
17	31	Auditing-3	Significant estimate changes, modeling, assumptions			X		X

The following excerpts from the Department of Education's (Education) and Boeing Corporation's (Boeing) 2017 MD&A illustrate how these principles may be applied to provide information that helps users to understand how estimates are used and their potential impact on financial statements.

Figure 2: Department of Education (Education), 2017 MD&A, pages 10-12

**Managing Risks and Uncertainty Facing
the Direct Loan Program's Cost Estimates**

Direct Loan program costs are estimated consistent with the requirements of the *Federal Credit Reform Act of 1990*. Under the Act, the future costs and revenues associated with a loan are estimated for the entire life of the loan, up to 40 years in this case. The actual performance of a loan cohort tends to deviate from the estimated performance during that time, which is not unexpected given the inherent uncertainty involved in developing estimates. There are four types of risk that make estimating lifetime program costs a difficult task.

Education's summary includes information about why estimates are required, the inherent uncertainty in developing estimates, and introduces users to four risks that cause measurement uncertainty. Education expands on the four risks and related assumptions (1) legislative, regulatory, and policy risk, (2) estimation risk, (3) macroeconomic risk, and (4) operational risk and the potential impact on estimates in the two pages following this summary. [Please read Attachment 3].

Figure 3: Boeing Corporation, MD&A, Program Accounting Excerpts

To ensure reliability in our estimates, we employ a rigorous estimating process that is reviewed and updated on a quarterly basis. Changes in estimates are normally recognized on a prospective basis; when estimated costs to complete a program exceed estimated revenues from undelivered units in the accounting quantity, a loss provision is recorded in the current period for the estimated loss on all undelivered units in the accounting quantity. For example, in 2016 and 2015, we recorded reach-forward losses of \$1,258 million and \$885 million on the 747 program. We continue to evaluate the viability of the 747 program and it is reasonably possible that we could decide to end production of the 747.

Due to the significance of judgment in the estimation process described above, it is reasonably possible that changes in underlying circumstances or assumptions could have a material effect on program gross margins. If the combined gross margin percentages for our commercial airplane programs had been estimated to be 1% higher or lower it would have a similar effect on the Commercial Airplane segment's operating margins. For the year ended December 31, 2017, a 1% increase or decrease in operating margins for our Commercial Airplane segment would have a \$567 million impact on operating earnings.

Boeing includes information about their review process to help reduce measurement uncertainty; their policy over losses and the possible impact on program sustainability, changes in circumstances or assumptions that could have a material effect on program costs, and what a 1.0% increase/decrease would have on operating margins/earnings (i.e., sensitivity analysis).

Aside from the sensitivity analysis in Boeing's MD&A these examples incorporate the above recommended principles for reporting estimates and measurement uncertainty in MD&A.

If members agree, the Risk Assumed project will continue to collaborate with the MD&A Improvements project to develop these recommendations into standards. [Note: these principles have been included in the draft exposure draft for MD&A Improvements TAB D]

QUESTION 1 – Does the Board want to include risk reporting principles MD&A-1 - 5 to help users understand measurement uncertainty and risk of future changes in estimates in MD&A?

II. ESTIMATES & MEASUREMENT UNCERTAINTY REPORTING IN NOTE DISCLOSURES:

To provide as much useful information to users as possible, staff recommends updates to reporting principles to include information in Note 1 - Summary of Significant Accounting Policies (SOSAP) and notes to the financial statements (NOTES).

A. NOTE 1: Summary of Significant Accounting Policies (SOSAP)

Staff found suggestions from 7 of the 31 research items that could improve information for users to understand what accounting policies address estimates and help to reduce measurement uncertainty.

As a result, staff recommends the following two improvements for reporting measurement uncertainty in Note 1 – Summary of Significant Accounting Policies:

- SOSAP-1: explain how data reliability is being managed to reduce the risk of measurement uncertainty and material misstatement of the financial statements; and
- SOSAP-2: Disclose which accounting balance(s) include significant estimates with reference to specific notes and what the probability is of a change in

significant estimate(s) in the near future that could materially impact the financial statements.

The following is the analysis mapping research suggestions to measurement uncertainty reporting principles for Note 1 – Summary of Significant Accounting Policies.

Research & Analysis -->				Measurement Uncertainty Reporting Principles Framework	
				Note 1	
Count	Original #	Research Group	Summary suggestions for reporting	SOSAP-1	SOSAP-2
1	1	Acct Stds-7	Amend SFFAC 1 & SFFAS 5	X	
2	2	Acct Stds-9	Amend SFFAS 5	X	
3	4	Agency-4	Annual re-estimates for completing major projects		X
4	12	Auditing-6	Management of significant measurement uncertainty	X	
5	22	Auditing-2	Risk mitigation to address estimate reliability		X
6	24	Auditing-1	Risk of material misstatement; estimate reliability		X
7	31	Auditing-3	Significant estimate changes, modeling, assumptions		X

Both principles refer to amending current standards because currently, there are no specific standards to discuss estimates and measurement uncertainty in Note 1 for reporting agencies. For example

- A. SFFAS 32, ***Consolidated Financial Report of the United States Government, et al.*** page 10-11, and paragraphs 29-30 only addresses the following (see underlined text relevant to estimates):

Paragraph 29 states:

1. Describe the reporting entity and identify its major components.
2. Summarize the accounting principles and methods of applying those principles that management has concluded are appropriate for presenting fairly the entity's assets, liabilities, net cost of operations, and changes in net position.
3. Disclosure of accounting policies should identify and describe the accounting principles followed by the reporting entity and the methods of applying those principles. In general, the disclosure should encompass important judgments as to the valuation, recognition, and location of assets, liabilities, expenses, revenues and other financing sources.
4. Disclosures of accounting policies should not duplicate details presented elsewhere as part of the notes to the financial statements.

Paragraph 30 only addresses disclosing changes in composition of reporting entity or how information is aggregated.

- B. **While OMB A-136**, page 59 does require that *management...disclose judgments relevant to the valuation, recognition, and allocation of assets, liabilities, expenses, revenues and other financing sources* in Note 1. It specifically requires a more detailed discussion on estimates, for reporting entities that prepare a Statement of Social Insurance:

Entities that prepare a SOSI should explain that SOSI **amounts are estimates** based on current conditions, that such conditions may change in the future, and that actual cost may vary, sometimes greatly, from estimates per SFFAS 37, Social Insurance, Additional Requirements for Management's Discussion and Analysis and Basic Financial Statements. Below is an example entities could include in Note 1.

The financial statements are based on the selection of accounting policies and the application of significant accounting estimates, some of which require management to make significant assumptions. Further, the estimates are based on current conditions that may change in the future. Actual results could differ materially from the estimated amounts. The financial statements include information to assist in understanding the effect of changes in assumptions to the related information

Staff presents the following good practice examples from Education's and Boeing's 2017 Note 1 that support staff recommendations for improvements available to NOTE 1 - Summary of Significant Accounting Policies.

Figure 4: Education, 2017 NOTE 1 - Summary of Significant Accounting Policies

USE OF ESTIMATES

Department management is required to make certain estimates while preparing consolidated financial statements in conformity with GAAP. These estimates are reflected in the assets, liabilities, net cost, and net position of the financial statements and may differ from actual results. The Department's estimates are based on management's best knowledge of current events, historical experiences, and other assumptions that are believed to be reasonable under the circumstances. Significant estimates reported on the financial statements include: allocation of Department administrative overhead costs; allowance for subsidy for direct, defaulted guaranteed, and acquired loans; the liability for loan guarantees; the amount payable or receivable from annual credit program re-estimates and modifications of subsidy cost; and grant liability and advance accruals. (See Notes 4, 5, 9, and 10)

Figure 5: Boeing, 2017 NOTE 1 Summary of Significant Accounting Policies

Use of Estimates

Management makes assumptions and estimates to prepare financial statements in conformity with accounting principles generally accepted in the United States of America. Those assumptions and estimates directly affect the amounts reported in the Consolidated Financial Statements. Significant estimates for which changes in the near term are considered reasonably possible and that may have a material impact on the financial statements are disclosed in these Notes to the Consolidated Financial Statements.

Education disclosure specifies in which account balances estimates are reflected, the general bases of the estimates, how significant estimates are used, and references to related disclosures for additional information.

Boeing provides a general and broad-based notice concerning the use of estimates and directs readers to the Notes for specifics, if any.

If members agree, the Risk Assumed project will collaborate with the Notes Disclosure project on developing these reporting principles for measurement uncertainty for Note 1 – Summary of Significant Accounting Principles.

QUESTION 2 – Does the Board want to include risk reporting principles SOSAP-1 – 2 to help users understand how estimates and measurement uncertainty are being managed and impact financial statements in Note 1 – Summary of Significant Accounting Principles?

B. Notes to the Financial Statements (NOTES)

Note disclosures provide basic information to support the account balances in the financial statements. Account balances need to be **reliable** to fairly present the financial condition and position of a reporting entity. When account balances include estimates reliability may be challenging for a user to process and understand.

According to paragraph 160 of SFFAC 1, *reliability is affected by the degree of estimation in the measurement process and by uncertainties inherent in what is being measured.*

Concepts 1

Reliability

160. Financial reporting should be reliable; that is, the information presented should be verifiable and free from bias and should faithfully represent what it purports to represent. To be reliable, financial reporting needs to be comprehensive. Nothing material should be omitted from the information necessary to represent faithfully the underlying events and conditions, nor should anything be included that would likely cause the information to be misleading to the intended report user. Reliability does not imply precision or certainty, but reliability is affected by the degree of estimation in the measurement process and by uncertainties inherent in what is being measured. Financial reporting may need to include narrative explanations about the underlying assumptions and uncertainties inherent in this process. Under certain circumstances, a properly explained estimate provides more meaningful information than no estimate at all.

Staff found suggestions from 25 of the 31 research items that could improve information for users to understand how estimates impact financial statements due to the measurement uncertainty.

As a result, staff recommends the following seven principles for reporting measurement uncertainty in the notes to the financial statements.

- NOTES-1: Identify and display comparative account balances with estimates.
- NOTES-2: Discuss reason for change from prior period.
- NOTES-3: Discuss for which significant estimate(s) change in the near term is considered reasonably possibly and may have a material impact on the financial statements.
- NOTES-4: Disclose what modeling method was chosen and why, and how does it reduce the risk of uncertainty.
- NOTES-5: Discuss data parameters considered; trends, assumptions demographics, etc.
- NOTES-6: Rank the risk of estimate uncertainty as low, medium, or high with an explanation.
- NOTES-7: Include sensitivity analysis (es) for significant high risk estimates to illustrate potential low and high point impacts of changes in significant data elements.

The following is the analysis mapping research suggestions to measurement uncertainty reporting principles for notes to the financial statements.

Research & Analysis -->				Measurement Uncertainty Reporting Principles Framework						
				Financial Statement Notes						
Count	Original #	Research Group	Summary suggestions for reporting	NOTES-1	NOTES-2	NOTES-3	NOTES-4	NOTES-5	NOTES-6	NOTES-7
1	3	Acct Stds-6	Annual re-estimates for completing major projects	X	X		X	X	X	X
2	4	Agency-4	Annual re-estimates for completing major projects	X	X		X	X	X	X
3	5	Acct Stds-2	Annual re-estimates/Material balance changes; risk mitigation	X	X	X	X	X	X	X
4	6	Academic-5	Assumptions					X		
5	7	Acct Stds-8	Assumptions					X		
6	8	Auditing-4	Assumptions; measurement uncertainty					X		
7	9	Auditing-5	Assumptions; measurement uncertainty			X				
8	10	Academic-3	estimation uncertainty & material misstatement		X					
9	12	Auditing-6	Management of significant measurement uncertainty							X
10	14	Academic-7	Mitigate & stabilize estimates; measurement uncertainty				X	X		
11	15	Academic-8	Mitigate & stabilize estimates; measurement uncertainty				X	X		
12	16	Agency-2	Model & data uncertainties				X	X		
13	17	Academic-4	Risk identification					X		
14	19	Academic-1	Risk identification, assumptions & sensitivity analysis				X	X	X	X
15	20	Academic-6	Risk identified					X		
16	22	Auditing-2	Risk mitigation to address estimate reliability			X				
17	23	Agency-6	Risk mitigation; sensitivity analysis; modeling decisions				X	X	X	X
18	24	Auditing-1	Risk of material misstatement; estimate reliability			X				
19	25	Agency-1	Risk ranking						X	
20	26	Agency-3	Sensitivity analysis - best estimate with low-cost and high-cost estimate							X
21	27	Acct Stds-3	Sensitivity analysis guidance re material and/or long range projections				X	X		
22	28	Auditing-7	Sensitivity Analysis with medium, low and high points							X
23	29	Agency-5	Sensitivity analysis, measurement methods, assumptions				X	X	X	X
24	30	Acct Stds-5	Significant Assumptions					X		
25	31	Auditing-3	Significant estimate changes, modeling, assumptions	X	X	X	X	X	X	X

If members agree, the Risk Assumed project will collaborate with the Notes Disclosure project on developing these reporting principles for measurement uncertainty.

QUESTION 3 - Does the Board want to include reporting principles NOTES-1 – 7 in notes to the financial statements to provide users with improved information for understanding estimates, measurement uncertainty and impact on account balances?

IV. UPDATING PROJECT NAME TO “RISK REPORTING”

Due to the evolution of this project, staff recommends updating the project’s name to Risk Reporting.

Risk Assumed is a confusing name. When the project was first initiated in 2011 it was in response to the risk “assumed” for the 2008 financial collapse and how the federal government could better account for those activities. FASAB made great strides in issuing Statement of Federal Financial Accounting Standards (SFFAS) 5, *Insurance Programs*, which provided more concise reporting for insurance programs.

However, as staff researched and analyzed risk holistically across the government it became more apparent that everything the federal Government does is to assume risk to reduce harm to its citizens and economy.

Enter enterprise risk management (ERM). Now agencies are mitigating risk to better manage their programs and financial performance. In addition, FASAB is incorporating risk management and mitigation language into how management should report on financial performance.

Another challenge presented itself to staff while developing the measurement uncertainty reporting framework for this memo and risk “assumed” became clear as mud. Did FASAB want to report on the risk of estimating future expenses related to a significant event that already occurred; OR, is risk assumed the risk of material misstatement to the financial statements as a result of the uncertainty of assumptions and other data points used to model an estimate?

While the measurement uncertainty framework addresses both of these concerns the framework does it from a risk reporting perspective. Therefore, it appears that “Risk Reporting” is now a better title and description for this project.

QUESTION 4 – Do any members disagree with updating the project name to Risk Reporting?

NEXT STEPS

In order to support implementing this framework, this project will

- I. continue to work with the MD&A Improvement project, and
- II. collaborate with the Notes Disclosure project.

QUESTIONS:

QUESTION 1 – Does the Board want to include risk reporting principles MD&A-1 - 5 to help users understand measurement uncertainty and risk of future changes in estimates in MD&A?

QUESTION 2 – Does the Board want to include risk reporting principles SOSAP-1 – 2 to help users understand how estimates and measurement uncertainty are being managed and impact financial statements in Note 1 – Summary of Significant Accounting Principles?

QUESTION 3 - Does the Board want to include reporting principles NOTES-1 – 7 in notes to the financial statements to provide users with improved information for understanding estimates, measurement uncertainty and impact on account balances?

QUESTION 4 – Do any members disagree with updating the project name to Risk Reporting?

MEMBER FEEDBACK

Please provide any comments to Ms. Gilliam by **August 22, 2018**, at gilliamr@fasab.gov and to Ms. Payne at paynew@fasab.gov

If you have any questions, please contact Ms. Gilliam at 202-512-7356 or gilliamr@fasab.gov

TAB F

Risk Assumed/Risk Reporting
Attachment 1

Measurement Uncertainty Research & Analysis

August 2018

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Research & Analysis Mapping to Measurement Uncertainty Reporting Framework

Research & Analysis →			Measurement Uncertainty Reporting Principles Framework													
			MD&A					Note 1		Financial Statement Notes						
#	Research Group	Summary suggestions for reporting	MD&A-1	MD&A-2	MD&A-3	MD&A-4	MD&A-5	SOSAP-1	SOSAP-2	NOTES-1	NOTES-2	NOTES-3	NOTES-4	NOTES-5	NOTES-6	NOTES-7
1	Acct Stds-1	risk mitigation and measurement uncertainty	X	X		X	X									
2	Acct Stds-2	Annual re-estimates/Material balance changes; risk mitigation				X	X			X	X	X	X	X	X	X
3	Acct Stds-3	Sensitivity analysis guidance re material and/or long range projections											X	X		
4	Acct Stds-4	Link to outside info re estimate development		X		X	X									
5	Acct Stds-5	Significant Assumptions												X		
6	Acct Stds-6	Annual re-estimates for completing major projects								X	X		X	X	X	X
7	Acct Stds-7	Amend SFFAC 1 & SFFAS 5						X								
8	Acct Stds-8	Assumptions												X		
9	Acct Stds-9	Amend SFFAS 5						X								
10	Agency-1	Risk ranking													X	
11	Agency-2	Model & data uncertainties											X	X		
12	Agency-3	Sensitivity analysis - best estimate with low-cost and high-cost estimate														X
13	Agency-4	Annual re-estimates for completing major projects				X	X		X	X	X		X	X	X	X
14	Agency-5	Sensitivity analysis, measurement methods, assumptions											X	X	X	X
15	Agency-6	Risk mitigation; sensitivity analysis; modeling decisions				X	X						X	X	X	X
16	Academic-1	Risk identification, assumptions & sensitivity analysis											X	X	X	X
17	Academic-2	Measurement Uncertainty - trend Information		X			X									
18	Academic-3	estimation uncertainty & material misstatement	X	X	X		X				X					
19	Academic-4	Risk identification												X		
20	Academic-5	Assumptions												X		
21	Academic-6	Risk identified		X			X							X		
22	Academic-7	Mitigate & stabilize estimates; measurement uncertainty		X			X						X	X		
23	Academic-8	Mitigate & stabilize estimates; measurement uncertainty		X			X						X	X		
24	Auditing-1	Risk of material misstatement; estimate reliability	X	X	X	X	X		X			X				
25	Auditing-2	Risk mitigation to address estimate reliability	X	X	X	X	X		X			X				
26	Auditing-3	Significant estimate changes, modeling, assumptions			X				X	X	X	X	X	X	X	X
27	Auditing-4	Assumptions; measurement uncertainty		X		X	X							X		
28	Auditing-5	Assumptions; measurement uncertainty	X	X	X	X	X					X				
29	Auditing-6	Management of significant measurement uncertainty	X	X	X	X	X	X								X
30	Auditing-7	Sensitivity Analysis with medium, low and high points														X
31	Auditing-8	Risk identification and mitigation		X		X	X									

ACCOUNTING STANDARD-SETTERS REVIEW

Accounting Standard-Setters Review					
Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
1. FASAB SFFAC 3 and SFFAS 15, Management's Discussion and Analysis (both issued 1999)	SFFAC 3, Par. 3 – F/S have predictive role to provide information used for formulating expectations and making decisions about the future	SFFAC 3, Par. 35 - Where appropriate, the description of possible future effects of both existing and anticipated factors should include quantitative forecasts* or projections	The possible future effects on the entity of existing, currently-known demands, risks, uncertainties, events, conditions and trends.	<p>The discussion and analysis of these subjects may be based on information in other discrete sections of the GPFFR or it may be based on reports separate from the GPFFR.</p> <p>“Anticipated” encompasses both “probable” and “reasonably possible” losses.</p>	<p>Unlike contingency liability accounting frameworks, risk mitigation frameworks include and emphasize the consideration of risks deemed “remote” due to their potential for critical or severe impacts.</p>
Acct Stds-1: Suggestion - Members may wish to consider including discussions in MD&A regarding measurement uncertainty and risk mitigation.					

Accounting Standard-Setters Review

Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
2. FASAB SFFAS 2, Accounting for Direct Loans and Loan Guarantees (issued 1993)	Par. 56 - Disclosure is made in notes to financial statements to explain the nature of the modification of direct loans or loan guarantees, the discount rate used in calculating the modification expense, and the basis for recognizing a gain or loss related to the modification.	<p>The subsidy cost allowance for direct loans and the liability for loan guarantees are re-estimated each year, taking into account all factors that may have affected the estimated cash flows.</p> <p>Any adjustment resulting from the re-estimates is recognized as a subsidy expense (or a reduction in subsidy expense)</p>	N/A	Par. 34 - In estimating default costs <u>forecasted</u> international, national, or regional economic conditions that may affect the performance are considered.	Par. 35 & 36 – Use of systematic methodologies such as econometric models and consideration of actual historical experience when developing default estimates.

Acct Stds-2: Suggestion - Members may wish to consider requiring **annual re-estimates** for completing major projects with qualitative and quantitative discussions on **material changes** as impacted by any assumption(s) and/or risk factor(s) changes as informed by the agency's **risk mitigation processes**.

Accounting Standard-Setters Review					
Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
3. FASAB SFFAS 17, Accounting for Social Insurance (issued 1999)	<p>The standard required that liabilities be recognized when payments became due and payable.</p> <p>Par. 8 - The information required by this standard, taken as a whole will help users make this assessment while acknowledging the complexity of the programs and the uncertainty of long-term projections.</p> <p>Par. 27 - Providing analysis/disclosure will not imply that such is appropriate in the future. Reasons for discontinuing a particular sensitivity analysis should be addressed.</p>	<p>Information is tailored for specific programs and includes narrative and/or graphic presentation such as:</p> <p>(1) long-range cash flow projections in nominal dollars and as a percentage of (a) payroll and (b) GDP;</p> <p>(2) long-range projection of the “dependency ratio”; and</p> <p>(3) a statement presenting the actuarial present values of (i) future benefits and (ii) contributions/tax income.</p>	<p>N/A</p> <p>NOTE: Entities needed to present supplementary stewardship information (RSSI) to facilitate assessing the long-term sustainability and the ability of the program and the nation to raise resources from future program participants to pay for benefits proposed to present participants.</p>	<p>Par. 49 – Rebutting respondent objections concerning sensitivity analysis, the Board held its position while recognizing the difficulty in illustrating the uncertainty inherent in all projections, especially very long-range projections.</p>	<p>Par. 115 - Estimates extending so far into the future are inherently uncertain, and the uncertainty is greater for the later years in the period.</p> <p>Par. 115 - The stewardship information included an analysis of the sensitivity of the projections to changes in assumptions.</p>
Acct Stds-3: Suggestion – Members may wish to consider introducing additional guidance or establishing requirements surrounding the use of sensitivity analysis concerning either material and/or long range projections.					

Accounting Standard-Setters Review

Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
<p>4. FASAB SFFAS 25, Reclassification of Stewardship Responsibilities and Eliminating the Current Services Assessment (issued 2003)</p> <p>Note – Staff’s analysis is limited to this standard’s social insurance discussion; that is, moving social insurance from RSSI to a basic statement.</p>	<p>Par. 27 - The Board acknowledges that there is great uncertainty inherent in long term projections, but believes that if the uncertainty is suitably disclosed.</p>	<p>The Statements of Social Insurance provide estimates of the status of the most significant social insurance programs: Social Security, Medicare, Railroad Retirement, and Black Lung. They are administered by the Social Security Administration (SSA), U.S. Department of Health and Human Services (HHS), the Railroad Retirement Board (RRB), and the Department of Labor (DOL), respectively.</p>	<p>N/A</p>	<p>Par. 27 - The Board rejects the idea that information based on projections cannot be an integral part of the basic financial statements. FASAB has not limited the content of federal financial statements to historical information.</p>	<p>This statement highlights the Board’s (stewardship) concern regarding the importance of social insurance as evidenced by moving it to basic information.</p> <p>Social insurance (actuarial) estimates require a level of expertise often not found in CFO shops.</p>
<p>Acct Stds-4: Suggestion – In lieu of additional disclosures, members may wish to allow preparers to reference to information (outside of the financial statements) that supports and discusses how significant estimates are developed.</p>					

Accounting Standard-Setters Review

Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
5. FASAB SFFAS 26, Presentation of Significant Assumptions for the Statement of Social Insurance: Amending SFFAS 25 (issued 2004)	<p>Required disclosure of significant assumptions underlying the Statement of Social Insurance (SOSI).</p> <p>Primarily due to auditor concerns, this amendment reclassified significant assumptions as basic information rather than as required supplementary information (RSI) to follow the SOSI which was moved to basic by SFFAS 25.</p>	N/A	N/A	<p>The Board's consideration of the audit community's concern.</p> <p>Par. 8 - Disclosures are an integral part of the basic financial statements while RSI is not an integral part of the basic financial statements. RSI accompanies the basic financial statements. Placing the significant assumptions in the disclosures associated with the SOSI serves two purposes.</p> <p>First, the significant assumptions inform the reader about the basis for the projections presented in the SOSI. Second, the reader has ready access to the significant assumptions through association with a principal financial statement.</p>	Other information required by SFFAS 17 to include sensitivity analysis was required to be part of RSI unless the preparer elected to include some or all of that information in the notes.

Acct Stds-5: Suggestion - Consistent with the Board's position regarding social insurance members may wish to require that significant assumptions be treated as basic information.

Accounting Standard-Setters Review

Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
6. GASB S 83, Certain Asset Retirement Obligations (ARO) (issued 2016)	<p>Governments that have legal obligations to perform future asset retirement activities related to tangible capital assets should recognize a liability.</p> <ul style="list-style-type: none"> • ARO measurements should be based on the best estimate of the current value of outlays expected to be incurred and include probability weighting of all potential outcomes. • Par. B18 - Some respondents to the Exposure Draft disagreed with the recognition of an ARO, expressing concern about the uncertainty in estimating the amount of the liability many years in advance of its settlement. A respondent also argued that the uncertainty makes disclosure more appropriate than recognition. 	<p>Par. B18 - The Board noted that the uncertainty related to the amount of an ARO is incorporated in the estimation of the liability based on the probability of potential outcomes, when sufficient evidence is available or can be obtained at reasonable cost.</p>	N/A	<p>Par. B18 - The Board also noted that, “Disclosure in the notes to financial statements ... is not an adequate substitute for recognition in the financial statements.”</p> <p>Governments should re-measure AROs only if evaluations indicate significant change(s) in estimated outlays</p>	<p>Attempting to “precisely” (re)estimate amounts requires resources that could be used elsewhere. CFO shops are not always aware of or have access to operational information affecting accounting estimates. However, implementing new risk mitigation processes should address this – requiring a team approach to managing risk and related costs.</p>
Acct Stds-6: Suggestion - - Members may wish to consider requiring annual reestimates for completing major projects with qualitative and quantitative discussions on material changes as impacted by significant assumption(s) and/or risk factor(s).					

Accounting Standard-Setters Review

Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
7. IPSASB Conceptual Framework and Presentation of Financial Statements (2017) .	<ul style="list-style-type: none"> • CF 3.5 – The extent to which the qualitative characteristics are met depends upon the degree of uncertainty that exists. • CF 3.15 – Explicit disclosure may be required to faithfully represent information. • CF 6.4 & 6.8 – It is important to reassess uncertainty at each reporting date. If uncertainty concerning a point estimate is so great, relevance and faithful representation may preclude recognition. • PFS 54 – Disclosing steps taken to resolve uncertainties may benefit users. 	N/A	N/A	<p>It is important to reassess uncertainty at each reporting date.</p> <p>Disclosing steps taken to resolve uncertainties may benefit users.</p>	<p>IPSASB specifically addresses this topic in its conceptual framework.</p> <p>Although there seems to be a preference for disclosing uncertainties as opposed to quantitative displays, this doesn't preclude providing quantitative information in the notes.</p>

Acct Stds-7: Suggestion – Members may wish to consider **amending** (1) **SFFAC 1**, *Objectives of Federal Financial Reporting*, to discuss how measurement uncertainty may affect qualitative characteristics and (2) **SFFAC 5**, *Definitions of Elements and Basic Recognition Criteria for Accrual-Basis Financial Statements*, to discuss how measurement uncertainty may affect recognition and measurement.

Accounting Standard-Setters Review					
Organization	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
8. IAS 1 Presentation of Financial Statements (issued 2007) .	<p>Par. 125 - Entities shall disclose information about assumptions and other major sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities.</p> <p>Par. 128 – Uncertainty disclosures aren't required if assets are at FMV.</p>	<p>Par. 129 – Disclosures:</p> <p>(a) nature of assumptions or estimation uncertainties;</p> <p>(b) sensitivity of carrying amounts to items (a) above;</p> <p>(c) expected resolution of (a) and the range of reasonably possible outcomes in respect of the carrying amounts of the assets and liabilities affected; and</p> <p>(d) explanation of changes made to past assumptions if the uncertainty remains unresolved.</p>	N/A	<p>Par. 127 - Assumptions and other sources of estimation uncertainty relate to the estimates that require management's most difficult, subjective or complex judgements.</p> <p>Par. 128 – Disclosing the sensitivity of carrying amounts and the range of possible outcomes in the next financial year.</p>	<p>This statement focuses on those non-fair value estimates that are most significant by virtue of management's attention (judgment) to them.</p> <p>Par. 13 – Many entities present principal uncertainties outside the financial statements.</p> <p>Par. 38B – Disclosing steps taken to resolve uncertainties may benefit users.</p>
Acct Stds-8: Suggestion – Members may wish to consider a note disclosure about assumptions and other major sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities that directly impact major programs' sustainability (overall liquidity and debt.)					

Accounting Standard-Setters Review					
Organization	Qualitative Presentation	Quantitative Presentation		What Stands Out?	Staff Notes
9. FASB Codification (2018)	<p>Presentation, 275-10-05 - Disclosures are meant to help dispel unwarranted degree of reliability in financials.</p> <p>Presentation, 275-10-50-4 – Disclosures inform users of inherent uncertainties contained in the financials.</p>	<p>Liabilities, 410-30-25 - Uncertainties are pervasive when measuring environmental remediation liabilities. Reporting entities are required to recognize their best estimate or, if no best estimate can be made, the minimum estimate of their share of the liability and to refine their estimate as events in the remediation process occur.</p> <p>Expenses, 720-30-45 - Where estimates are subject to a substantial measure of uncertainty, the liability shall be described as estimated.</p>	<p>Fair Value Measurement, 820-10-35 A fair value measurement may require a risk adjustment when there is significant measurement uncertainty.</p> <p>Film Costs, 926-20-35 As a result of uncertainties in estimating, actual results may vary. Entities shall revise revenue estimates as of each reporting date.</p>	<p>Income Taxes, 740-10-05 - Accounting for income taxes considers uncertainty through recognition and measurement criteria to:</p> <p>a. Recognize estimated taxes payable or refundable as a tax liability or tax asset</p> <p>b. Recognize a deferred tax liability or deferred tax asset for the estimated future tax effects attributable to temporary differences and carryforwards.</p>	<p>Expenses possessing substantial measures of uncertainties must be titled as “<i>Estimated</i>.”</p> <p>Film production entities must revise revenue estimates yearly.</p> <p>Accounting for income taxes illustrates how complicated a system can be that tries to “smooth” out expenses given the related uncertainties.</p>
Acct Stds-9: Suggestion-Members may wish to consider amending SFFAS 5 , <i>Accounting for Liabilities of The Federal Government</i> to require the display and disclosure of estimates of select liabilities to include “Estimated” in the title and add a sensitivity analysis for “estimated liabilities” to include the point estimate, and related cost impact for both low and high point estimates.					

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AGENCY POLICIES & PROCEDURES REVIEW

Agency Policies & Procedures Review						
Agency	Synopsis	Risk Analysis	Likelihood (certainty)	Quantitative Techniques	What Stands Out?	Staff Notes
1. Department of Defense. Risk, Issue, and Opportunity Management Guide for Defense Acquisition Programs. (2017)	<p>The focus is on risk identification, mitigation and control of cost, schedule, and performance objectives.</p> <p>Anticipating possible adverse events, evaluating probabilities of occurrence, understanding cost and schedule impacts, and deciding to take cost effective steps ahead of time to limit their impact if they occur is the essence of effective risk management.</p>	<p>What is the likelihood and consequence of the risk and how high is the risk?</p> <p>During the risk analysis phase the programs:</p> <ol style="list-style-type: none"> 1. Estimate the likelihood the risk event will occur. 2. Estimate the possible consequences in terms of cost, schedule, and performance. 3. Determine the resulting risk level and prioritize for mitigation. 	<p>Risk likelihood is the evaluated probability an event will occur given existing conditions.</p>	<p>Schedule, cost and performance risk analyses commonly adopt probability distributions (e.g., Monte Carlo simulations), probabilistic critical path analyses, and sensitivity analyses.</p>	<p>If the analyzed likelihood is 100% (or approaching 100%), the event or condition is treated as an issue rather than a risk.</p>	<p>The probability of occurrence should be established based on quantitative programmatic and engineering analyses to the extent practical.</p> <p>5 - Near Certainty > 80% to ≤ 99%; 4 - Highly Likely > 60% to ≤ 80%; 3 - Likely > 40% to ≤ 60%; 2 - Low Likelihood > 20% to ≤ 40%; 1 - Not Likely > 1% to ≤ 20%.</p>
Agency-1: Suggestion – Members may wish to consider establishing criteria (e.g., percentage ranges) for risk ranking that would categorize reliability for estimates based on an agency's risk mitigation to determine the potential impact of a risk factor/event on a major program's financial performance.						

Agency Policies & Procedures Review

Agency	Synopsis	Risk Analysis	Likelihood (certainty)	Quantitative Techniques	What Stands Out?	Staff Notes
2. Department of Transportation Federal Highway Administration. Guide to Risk Assessment and Allocation for Highway Construction Management. (2006)	<p>The degree of uncertainty which exists in a project drives risk categorization. For example, projects with little uncertainty (few risks) will simply list the risks as red flag items for monitoring. Whereas on complex, high-cost projects that are by nature uncertain, the risks feed a rigorous process of assessment, analysis, mitigation and planning, allocation, and monitoring.</p>	<p>Although checklists and databases are created to identify risks, project team experience and subjective analysis are required to identify project specific risks.</p>	<p>Uncertainty involves both positive (opportunities) and negative events (risks).</p>	<p>Distinguishing aleatory (data) risks which are uncertainties associated with the data used in calculations from epistemic (model) risks which refer to uncertainties that arise from the inability to accurately calculate a value.</p> <p>Examples include: brainstorming, scenario planning, nominal group method, Delphi method and expert interviews.</p>	<p>Engineers and project managers inherently have an optimistic bias when thinking about uncertain items or situations because they are, by nature, problem-solvers.</p>	<p>The process promotes creative thinking and leverages team experience and knowledge.</p> <p>Once risks are identified, they are classified into groups of like risks.</p>

Agency-2: Suggestion – Members may wish to consider whether (1) a discussion of **data uncertainties** compared to **model uncertainties** and (2) classification of uncertainties into groups would help improve financial reporting concerning risks.

Agency Policies & Procedures Review

Agency	Synopsis	Risk Analysis	Likelihood (certainty)	Quantitative Techniques	What Stands Out?	Staff Notes
3. The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. (2017)	<p>The Trustees present an intermediate “best” estimate along with low-cost and high-cost alternatives to provide a range of what might occur.</p>	<p>N/A</p>	<p>Trustees clearly state that significant uncertainty surrounds the intermediate assumptions.</p>	<p>Several methods are used to illustrate uncertainty:</p> <ul style="list-style-type: none"> • Using low-cost and high-cost sets of assumptions • Long-range sensitivity analysis. • 5,000 independently generated stochastic simulations. 	<p>The actual future costs are unlikely to be as extreme as those portrayed by the low-cost or high-cost projections.</p>	<p>Two appendices are used to address uncertainty. Appendix D presents sensitivity analyses of the effects of variation in individual factors and appendix E presents probability distributions generated by a stochastic model.</p>
Agency-3: Suggestion - Members may wish to consider requiring a sensitivity analysis to include an intermediate “best” estimate, along with low-cost and high-cost estimates and a qualitative discussion to explain measurement methods and probabilities for determining reported estimates.						

Agency Policies & Procedures Review						
Agency	Synopsis	Risk Analysis	Likelihood (certainty)	Quantitative Techniques	What Stands Out?	Staff Notes
<p>4. Joint Agency Cost Schedule Risk and Uncertainty Handbook. (2014)</p> <p>Staff notes: This collaborative work features input from the Air Force, Army, Marine Corps, Navy, Missile Defense Agency, and NASA.</p>	<p>The handbook defines processes and procedures for performing cost and schedule risk/uncertainty analysis in support of cost estimates for major acquisition programs.</p>	<p>Risk is the probability of a loss or injury.</p> <p>Opportunity is a favorable event or outcome.</p>	<p>Uncertainty is the indefiniteness about the outcome of a situation.</p> <p>Special consideration should be given to uncontrollable events that should not be included in the uncertainty assessment.</p>	<p>Numerous techniques are identified for the program manager or analyst's use: descriptive statistics, probability, probability distributions, regression methods, risk simulation sampling methods, correlation, alternative allocation methods, and enhanced scenario-based methods.</p>	<p>Events such as natural disasters (hurricanes, earthquakes, etc.), industry collapses (bankruptcies, litigation, etc.), mission changing events (e.g. space shuttle disaster), and world events (e.g. September 11th) should generally be excluded from explicit uncertainty modeling.</p>	<p>The handbook differs from the DoD Risk, Issue, and Opportunity Management Guide inasmuch as it excludes performance risk/uncertainty.</p> <p>The handbook notes that risk events or conditions can be captured from the entity's risk register.</p>
<p>Agency-4: Suggestion - Members may wish to consider requiring annual re-estimates for completing major projects with qualitative and quantitative discussions on material changes as impacted by any assumption(s) and/or risk factor(s) changes as informed by the agency's risk mitigation strategy.</p>						

Agency Policies & Procedures Review						
Agency	Synopsis	Risk Analysis	Likelihood (certainty)	Quantitative Techniques	What Stands Out?	Staff Notes
5. Office of Management and Budget. Circular A-11, Preparation, Submission, and Execution of the Budget. (2017)	A-11, Section 270.26 identifies uncertainty as an area addressed by (effective) Enterprise Risk Management (ERM) systems.	Risk is the effect of uncertainty on objectives.	Risk analysis is used to identify and quantify uncertainties so that their cost can be factored into overall cost estimates.	Sensitivity analysis can identify the response of program costs and benefits to changes in one or more uncertain elements of the analysis.	Effective risk management explicitly addresses uncertainty.	The Capital Programming Guide specifically states that, "Sensitivity analysis should be used to test the response of the investment's net present value to changes in key assumptions."
Agency-5: Suggestion - Members may wish to consider requiring a sensitivity analysis and qualitative discussion to explain measurement methods probabilities and assumptions used for determining reported estimates. Key assumption changes that caused material changes in estimates from prior years should be explained.						

Agency Policies & Procedures Review						
Agency	Synopsis	Risk Analysis	Likelihood (certainty)	Quantitative Techniques	What Stands Out?	Staff Notes
6. Office of Management and Budget. Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs. (Part 9. Treatment of Uncertainty) (1992)	<p>Estimates of benefits and costs are typically uncertain because of imprecision in underlying data and assumptions.</p> <p>As such, its effects should be analyzed and reported.</p>	N/A	<p>Analyses should attempt to characterize the sources and nature of uncertainty.</p> <p>It should be recognized that many phenomena that are treated as deterministic or certain are, in fact, uncertain.</p>	Probabilistic expected value estimates of outcomes; sensitivity analyses, and stochastic methods.	In analyzing uncertain data, objective estimates of probabilities should be used whenever possible.	The basis for the probability distribution assumptions should be reported and that limitations of the analysis because of uncertainty or biases surrounding data or assumptions should be discussed.
Agency-6: Suggestion - Members may wish to consider a discussion about how risk mitigation helps the agency to identify and quantify future risks and to what extent if any, sensitivity analyses including probabilities are performed.						

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Academic Literature Review

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
1. Corporate Governance, Risk Disclosure Practices, and Market Liquidity: Comparative Evidence from the UK and Italy. (2015)	<p>Firms with higher levels of liquidity risk provide more risk information.</p> <p>Factors that affect risk disclosure appear to be driven more by strongly governed firms; board size, board independence, dividend policy, concentrated ownership structure, and audit quality.</p>	<p>Risk disclosure (voluntary) in the U.K. conveys credible information.</p> <p>Risk disclosure (mandatory) in Italy is less informative and is more boilerplate.</p>	N/A	<p>Italian regulation forces firms to include a description of their risks and uncertainties in the Management Discussion and Analysis (MD&A).</p> <p>Managers have to explain in detail all of the risks faced by their company during the past year, and how they have managed these risks, in their annual reports.</p>	<p>Direct relationship between risk levels and information quantity.</p> <p>Mandatory risk requirements lead to boilerplate or “laundry list” reporting.</p> <p>Governance as well as auditing effect risk disclosure.</p>	<p>Users assess the financial condition of a government by reviewing information about, in part, projections of receipts and spending (liquidity) and their effect on the government’s debt.</p> <p>As sovereign risk (e.g., possibility of defaulting on debt) increases so should entity disclosures concerning the risks that contribute to government debt.</p>
Academic-1: Suggestion - Members may wish to consider how measurement uncertainty reacts to risks identified and assumptions and whether there is a significant cost impact to the performance of major programs. And, include a sensitivity analysis to estimate cost impacts depending on how the risk is managed – different scenarios - and, to what extent major program financial performance impacts government-wide liquidity and sustainability.						

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
<p>2. Attributes of Corporate Risk Disclosure: An International Investigation in the Manufacturing Sector. (2011)</p> <p>Note: The authors sampled 160 annual reports from U.S., U.K., Canadian and German companies.</p>	<p>Concentrates on financial risk categories.</p> <p>Requirements include both qualitative and quantitative disclosure.</p> <p>Comprises little quantitative and forward-looking disclosures.</p> <p>In terms of risk disclosure quantity, U.S. firms generally dominate, followed by German firms.</p>	<p>Risk disclosure requirements focus on:</p> <p>1. Financial risks (e.g., credit, currency, interest rate, and liquidity risks) largely linked to the use of financial instruments.</p> <p>2. Related financial risk management.</p> <p>In general, the quantity of qualitative risk disclosure will be higher than that of quantitative risk disclosure.</p>	<p>Although considered useful, only little quantitative risk disclosure is mandatory.</p> <p>Moreover, there are problems to quantifying risks and incentives to withhold quantitative data.</p>	<p>In addition to note disclosures, all require risk disclosure in the management report sections, i.e., in Europe, the Operating and Financial Review or Management Report.</p> <p>These require disclosure on trends and principal risks or uncertainties firms face and the impact risks could have on financial position.</p>	<p>Risk disclosures are:</p> <p>1. Located in both the management report and notes.</p> <p>2. Reporting is more qualitative than quantitative.</p> <p>3. Discussions are of past, present, and non-time-specific events as compared to forward-looking risk disclosures.</p>	<p>At the June 22, 2017 meeting, members generally agreed not to include in part, a separate risk section or trends using emergency funding as an indicator of fiscal exposure.</p> <p>Regimes are struggling with quantifying risk exposure and forward-looking information.</p>
<p>Academic-2: Suggestion - Members may wish to (re)consider including a discussion about measurement uncertainty trend information and its impact on financial condition of major programs. Requiring trend reporting in MD&A, which is RSI, could encourage more candid discussion about measurement uncertainties.</p>						

Academic Literature Review

Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
3. A Content Analysis of Risk Management Disclosures in Canadian Annual Reports. (2005) Note: The authors sampled 228 Canadian companies.	<p>More formalized and comprehensive risk disclosures are needed.</p> <p>Most mandatory risk disclosures concern primarily financial, commodity or market risks.</p> <p>Nonfinancial risks are voluntarily disclosed to a large extent, and mostly in the MD&A.</p> <p>Forward-looking information is encouraged.</p>	<p>Risk reporting in the Notes primarily limited to financial risks whereas MD&A risk reporting is broader.</p> <p>Risk reporting considers "materiality" and "significant risk exposure," which allows management flexibility in selecting risks to report.</p> <p>Disclosures are general, scattered, and sometimes ambiguous.</p>	<p>Firms may be unwilling to disclose detailed risk information due to competitive pressures and information costs associated with such disclosure could be substantial.</p>	<p>Broader risk coverage discussion than Notes.</p> <p>MD&A uses an average of 216 words in 10 paragraphs to discuss risk whereas Notes use 204 words in 10 paragraphs.</p> <p>Most firms report either in MD&A or the Notes with fewer firms reporting in both.</p>	<p>How the use of "materiality" and "significant risk exposure" may give management too much discretion.</p> <p>MD&A tends to report risk on a broader scale than notes.</p> <p>Firms with high debt/equity ratios tend to report only mandatory disclosures whereas firms with lower debt/equity ratios provide mandatory and voluntary disclosures.</p>	<p>The debt/equity relationship is opposite to Study #1's findings that firms (UK and Italian) with higher levels of liquidity risk provide more risk information. This increased disclosure could be due to regulatory requirements or market incentives.</p> <p>Also, Study #2 noted problems associated with quantifying risks as well as incentives to withhold quantitative data.</p>

Academic-3: Suggestion - Members may wish to consider a discussion in MD&A to explain significant risks being managed and impact on program financial performance and **estimation uncertainty**, and Note disclosures to explain significant estimate changes and risk of **material misstatement**.

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
4. Corporate Risk Reporting, A Content Analysis of Narrative Risk Disclosures in Prospectuses. (2008) Note: The author sampled 90 prospectuses of Dutch firms that issued securities on the Amsterdam Stock Exchange.	The results showed in predicting future risk, the information extracted from the texts is more successful than market information on past risk.	Some argue that risk sections do not contain reliable information, because the rules are subjective, open-ended and ambiguous, which allows firms to report almost anything (or nothing) without violating requirements.	Quantification of risk disclosure is viewed as beneficial because it improves the credibility of the disclosures and makes them ex-post verifiable.	N/A	Information on past risk is not as successful in predicting future risks. Most standard setters allow firms a large degree of discretion in drafting risk sections. The narratives must explain in simple language how certain risk factors affect the company but should exclude risk factors that could apply to any company.	Concerning IPO's, stakeholders insist on the disclosure of material risk information.
Academic-4: Suggestion - Members may wish to include a discussion on how an agency identifies a significant risk to a major program and its potential significant impact to financial performance.						

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Examples of Non-financial Risks
5. The disclosure of risk in financial statements (2003) Staff Note: Financial Risks include changes in interest rate, currency, credit and financial instrument value.	<p>Accounting rules (IASB, FASB, and SEC) do not refer to other risks affecting firms such as non-financial risks or other market risks.</p> <p>Reforms are needed to include non-financial risks and to establish quantification models.</p>	<p>If the present model of accounting information were to incorporate a new statement on company risks, this statement would overcome one of the main drawbacks of the present model revealed by external users, mainly (potential) shareholders and lenders).</p>	<p>Within this reform an adequate scheme and typology for the risks facing firms must be established and a set of specific risk quantification models must be designed.</p> <p>The authors propose the value at risk (VaR) as a suitable quantification method for most company risks.</p>	N/A	<p>The importance of non-financial risks. While not directly related to monetary assets or liabilities, they will still have an effect on future cash flows.</p> <p>Financial risks, which do have a direct influence on the loss of value of monetary assets and liabilities include: market risk, credit risk, liquidity risk and operational and legal risks.</p>	<p>Political: conducting business internationally.</p> <p>Market: changes in competition, products sold by vendors, loss of market share.</p> <p>Technology: rapid technological change.</p> <p>Environmental: environment incidents, laws and regulations.</p> <p>Natural: resources, weather, and disasters.</p>
Academic-5: Suggestion - Members may wish to consider presentation/disclosure of non-financial risks- assumptions - that may have a significant impact on future cash flows, liquidity, debt, and overall sustainability for major programs. Moreover, such assumptions may directly impact financial measurements and related probabilities or certainties over such estimates.						

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
6. Risk and Financial Reporting: A Summary of the Discussion at the 1997 AAA/FASB Conference (1998)	<p>Financial and Operational risks are hard to separate.</p> <p>Although risk is generally thought of as two-sided, in the context of accounting conservatism, standard setters might consider using words like "potential losses and opportunities" rather than "risk" to indicate the concept of uncertainty.</p>	<p>Statement of Position 94-6 (SOP), <i>Disclosure of Certain Significant Risks and Uncertainties</i>, identifies the following categories:</p> <ol style="list-style-type: none"> Nature of operations Use of estimates in the preparation of financial statements Certain significant estimates Current vulnerability due to certain concentrations. 	<p>Firms must disclose market risk measured using one of three quantitative methods. The three disclosure formats include:</p> <ol style="list-style-type: none"> Tabular Presentation Sensitivity Analysis Value at Risk Analysis 	<p>SEC guidance related to MD&A states that it is the responsibility of management to identify and address those key variables and other qualitative and quantitative factors which are peculiar to and necessary for an understanding and evaluation of the individual company.</p>	<p>Any risk measurement standard must specify the model(s) for measuring risk and degree of management the flexibility. However, flexibility also creates the opportunity for manipulation.</p> <p>SEC guidance states that MD&A should give investors an opportunity to look at the registrant through the eyes of management.</p>	<p>One of the shortcomings noted at the conference is that there is no ex post settling up so there is no basis for assessing completeness or accuracy of risk disclosures.</p> <p>Preparers have no evidence that risk disclosures affect the cost of capital. As such, they have no incentives for voluntary disclosures about risk.</p>
Academic-6: Suggestion – As noted above, members may wish to consider a discussion on how a risk(s) is identified that may significantly impact the cost of the investment (major program) through loss or opportunity.						

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
7. Risk Reporting: an exploratory study on risk management disclosure in Malaysian annual reports (2009)	Entity size matters because as the entity grows bigger it will have a larger pool of stakeholders to satisfy. Also, the nature of the industry is found to influence the extent of risk disclosure.	Disclosures are almost always qualitative in nature and lacking in specificity and depth.	<p>In studies regarding the quality of risk disclosure in MD&A presentations, even though risks are identified, they are seldom quantified.</p> <p>Financial reporting of risk focuses predominantly on the market risk associated with the use of derivatives.</p>	Disclosure in the MD&A is useful in forecasting and can help investors make informed decisions regarding the firm's future.	<p>Firms are reluctant to indicate whether disclosed future risks will impact them, either positively or negatively.</p> <p>They are more inclined to report past and present risks.</p>	<p>We use hedge accounting to avoid or reduce risks by creating a relationship by which losses on certain positions are expected to be counterbalanced in whole or in part by gains on separate positions in another market.</p> <p>Can we use a similar concept when dealing with uncertainty in estimates?</p>
Academic-7: Suggestion - Members may wish to consider a qualitative discussion on how an agency plans to mitigate and stabilize estimates and related measurement uncertainties .						

Academic Literature Review						
Article	Synopsis	Qualitative Presentation	Quantitative Presentation	MD&A Presentation	What Stands Out?	Staff Notes
8. Managing Risks: A New Framework by Robert S. Kaplan and Anette Mikes (2012) .	Rules-based risk management will not diminish either the likelihood or the impact of a disaster such as Deepwater Horizon, just as it did not prevent the failure of many financial institutions during the 2007–2008 credit crisis.	N/A	N/A	N/A	Organizational biases inhibit our ability to discuss risk and failure. A culture of intellectual confrontation is needed. Risk management cannot be a fully-delegated responsibility.	JPL has established a risk review board made up of independent technical experts whose role is to challenge project engineers' design, risk-assessment, and risk-mitigation decisions.
Academic-8: Suggestion - Members may wish to include a discussion on how risk mitigation is addressing measurement uncertainty in accounting estimates.						

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Auditing Standard-setters Review

Auditing Standard-Setters Review				
Authority	Definitions	Risks of Material Misstatement (RMM)	Influence on Audit Procedures	What Stands Out?
1. AICPA AU-C Section 315—<i>Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement</i>	Significant risk – an identified and assessed RMM that in the auditor's professional judgment requires special audit consideration.	Par. .29 - Exercising judgment about which risks are significant (financial) risks includes consideration of those measurements involving a <i>wide range of measurement uncertainty</i> . Appendix C: <ul style="list-style-type: none"> • Measurements that involve complex processes. • Events or transactions that involve significant measurement uncertainty, including accounting estimates. 	Par. .A141 – RMM may be greater for matters that require the development of accounting estimates arising from matters including subjective or complex judgments or assumptions about the effects of future events. In general, the greater the RMM the more testing – attribute and substantive – auditors will have to perform.	Par. .A26 - Significant estimates that give rise to RMM requires that the engagement team includes members with sufficient, relevant knowledge and experience Par. .A157 - Control Environment. Management's philosophy and operating style reflecting its attitudes and actions toward financial reporting may manifest through the selection of available accounting principles or conscientiousness and conservatism with which accounting estimates are developed.
Auditing-1: Suggestion – Members may wish to consider a discussion on how the risk of material misstatement may inform estimate reliability in relation to a major program's financial condition, an agency's financial position, and the potential impact to the governmentwide CFR.				

Auditing Standard-Setters Review				
Authority	Definitions	Risks of Material Misstatement (RMM)	Influence on Audit Procedures	What Stands Out?
2. AICPA AU-C Section 320— Materiality in Planning and Performing an Audit	<p>Par. .02 – Materiality generally includes judgments about:</p> <ul style="list-style-type: none"> • misstatements, including omissions if they individually or in the aggregate, could reasonably influence a user; • surrounding circumstances and are affected by the size or nature of a misstatement, or a combination of both; • the common financial information needs of users as a group. The possible effect of misstatements on specific individual users, whose needs may vary widely, is not considered. 	<p>Par. .05 - The concept of materiality is applied by the auditor both in planning and performing the audit; evaluating the effect of identified misstatements on the audit and the effect of uncorrected misstatements, if any, on the financial statements; and in forming the opinion in the auditor's report.</p> <p>In general, RMM can be mitigated if the entity effectively corrects misstatements in a timely manner.</p>	<p>Par. .04 - it is reasonable for the auditor to assume that users recognize the uncertainties inherent in the measurement of amounts based on the use of estimates, judgment, and the consideration of future events.</p> <p>Par. .A11 - In an audit of a governmental entity, total cost or net cost (expenses less revenues or expenditures less receipts) may be appropriate benchmarks for program activities. When a governmental entity has custody of public assets, assets may be an appropriate benchmark.</p>	<p>Auditor assumption that users recognize the uncertainties inherent in the measurement of amounts.</p>
Auditing-2: Suggestion - Members may wish to require a discussion on how and how often an agency mitigates risks to address and prevent financial estimate misstatements.				

Auditing Standard-Setters Review				
Authority	Definitions	Risks of Material Misstatement (RMM)	Influence on Audit Procedures	What Stands Out?
3. AICPA AU-C Section 540—Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures	Par. 07 - Estimation uncertainty is the susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in their measurement.	<ul style="list-style-type: none"> • Par. 02 - The degree of estimation uncertainty affects the RMM of accounting estimates, including their susceptibility to unintentional or intentional management bias. • Par. .09 - The auditor should review the outcome of estimates included in the prior period or, when applicable, their subsequent re-estimation. • Par. .13 - In responding to the assessed RMM, the auditor should develop a point estimate or range to evaluate management's point estimate. 	Par. .08(c) – Auditors should determine how accounting estimates are derived and their basis including: <ol style="list-style-type: none"> 1. method(s) and models used; 2. relevant controls; 3. use of a specialist; 4. assumptions; 5. whether there has been or ought to have been a change from the prior period and if so, why; and 6. how management has assessed the effect of estimation uncertainty. 	Par. .15 The auditor should evaluate: <ol style="list-style-type: none"> a. If and how management considered alternative assumptions and why they were rejected; b. Whether the significant assumptions used by management are reasonable; c. Management's intent and ability to carry out specific courses of action. Disclosures related to estimates should be in accordance with the applicable GAAP framework.
Auditing-3: Suggestion - Members may wish to consider, in relation to significant estimate changes from prior years, a discussion on method(s) and models used, changes in assumptions , and how management has assessed the effect of estimation uncertainty and addressed any method or modeling changes going forward.				

Auditing Standard-Setters Review				
Authority	Definitions	Risks of Material Misstatement (RMM)	Influence on Audit Procedures	What Stands Out?
4. AICPA AUD Section 35— Statement of Position 04-1 Auditing the Statement of Social Insurance	SFFAS 17, Paragraph 25, <i>Accounting for Social Insurance</i> , states in part, “The projections and estimates used should be based on the entity's best estimates of demographic and economic assumptions, taking each factor individually and incorporating future changes mandated by current law.”	Par. .29 - The RMM of estimates ordinarily varies with the complexity and subjectivity of the process, the availability and reliability of the relevant data, the number and significance of assumptions that are made, and the degree of uncertainty associated with the assumptions.	Par. .09 - The auditor should use one or a combination of the following approaches to evaluate the reasonableness of an estimate: a. Review and test the process used by management to develop the estimate. b. Develop an independent expectation of the estimate to corroborate the reasonableness of management's estimate. c. Review subsequent events or transactions occurring prior to the date of the auditor's report.	Par. .19 - If the actuary who has prepared or reviewed the actuarial valuation of the social insurance program was engaged by the agency administering that program, it is necessary for the auditor to obtain the services of an independent actuary to assist the auditor in performing auditing procedures that assess the agency actuary's methods, assumptions, and estimates, and aid the auditor in determining whether the agency actuary's findings are not unreasonable in the circumstances.
Auditing-4: Suggestion – Members may wish to consider a requirement to discuss how each assumption and potential impact on measurement uncertainty of estimates.				

Auditing Standard-Setters Review				
Authority	Critical Audit Matters (CAM)	Risks of Material Misstatement (RMM)	Influence on Audit Procedures	What Stands Out?
5. PCAOB AS 3101: <i>The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion</i>	Par.11 - The auditor must determine whether there are any critical audit matters in the audit of the current period's financial statements. A CAM is any matter arising from the audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved especially challenging, subjective, or complex auditor judgment. CAM's are not a substitute for the auditor's departure from an unqualified opinion.	Par .12 - In determining whether a matter involved especially challenging, subjective, or complex auditor judgment, the auditor should take into account, alone or in combination, the following factors, as well as other factors specific to the audit: a. The auditor's assessment of the RMM, including significant risks	Par. 12 - The auditor should take into account: b. The degree of auditor judgment related to areas in the financial statements that involved the application of significant judgment or estimation by management, including estimates with significant measurement uncertainty matter.	CAM reporting involves especially challenging, subjective, or complex auditor judgment. The auditor must: a. Identify the CAM; b. Describe the considerations in determining the CAM; c. Describe how the CAM was addressed in the audit; d. Refer to the relevant financial statement accounts or disclosures that relate to the CAM.
Auditing-5: Suggestion – Members may wish to consider requiring a discussion of how estimates with significant measurement uncertainty are managed.				

Auditing Standard-Setters Review		
Authority	Government Auditing Standards, Supplemental Guidance	Government Auditing Standards, Chapter 5 - Reporting Standards for Financial Audits
6. GAO Yellow Book	Examples of Deficiencies in Internal Control Par. A.06 - Control systems that did not prevent, or detect and correct material misstatements identified by the auditor. This includes misstatements involving estimation and judgment for which the auditor identifies potential material adjustments and corrections of the recorded amounts.	Communicating Significant Matters in the Auditors' Report Par. 5.23 – GAO makes the point that due to the public interest in the operations of government entities, in GAGAS [Generally accepted governmental auditing standards] audits (i.e., emphasis of significant matters) there may be situations in which certain types of information would help facilitate the readers' understanding of the financial statements and the auditors' report.
		Par. 5.24 - Significant uncertainties surrounding projections or estimations in the financial statements is one of four examples of matters that auditors may communicate in a GAGAS audit. Briefly, the other three are: <ol style="list-style-type: none"> 1. Significant concerns or uncertainties about the fiscal sustainability of a government or program. 2. Unusual or catastrophic events that will likely have a significant ongoing or future impact on the entity. 3. Any other matter that the auditors consider significant for communication to users and oversight bodies.
Auditing-6: Suggestion – Given the GAGAS auditor's responsibilities, members may wish to consider the use of a separate Note disclosure or MD&A discussion concerning significant measurement uncertainties.		

Auditing Standard-Setters Review				
Authority	Definitions	Risks of Material Misstatement (RMM)	Influence on Audit Procedures	What Stands Out?
7. IAASB IAS 540: AUDITING ACCOUNTING ESTIMATES, INCLUDING FAIR VALUE ACCOUNTING ESTIMATES, AND RELATED DISCLOSURES	<p>Par. 7 - Estimation uncertainty – The susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement.</p>	<p>Par. 2 - The degree of estimation uncertainty affects the RMM of accounting estimates, including their susceptibility to unintentional or intentional management bias.</p> <p>Par. 20.- For accounting estimates that give rise to significant risks, the auditor shall also evaluate the adequacy of the disclosure of their estimation uncertainty in the financial statements in the context of the applicable financial reporting framework.</p>	<p>Par. 8 – how has management assessed the effect of estimation uncertainty?</p> <p>Par. 10 - evaluate the degree of estimation uncertainty associated with an accounting estimate.</p> <p>Par. 15 – Auditors must determine: how management considered alternative assumptions or outcomes; whether significant assumptions used by management are reasonable, and management's intent to carry out specific courses of action and its ability to do so.</p>	<p>Par. 16 - If, in the auditor's judgment, management has not adequately addressed the effects of estimation uncertainty on the accounting estimates that give rise to significant risks, the auditor shall, if considered necessary, develop a range with which to evaluate the reasonableness of the accounting estimate.</p> <p>Par. A93 - Such a range should be based on "reasonable outcomes" rather than all possible outcomes.</p>
Auditing-7: Suggestion – For accounting estimates deemed significant, members may wish to consider requiring disclosure or presentation (e.g., MD&A or RSI) of sensitivity analysis to include low, medium, and high points of reasonable outcomes.				

Auditing Standard-Setters Review			
Authority	Performance Standard	Interpretation	Implementation
8. IIA Performance Standards and interpretations (2017)	2120 - Risk Management The internal audit activity must evaluate the effectiveness and contribute to the improvement of risk management processes.	Internal auditors (IA) must determine if management identifies significant risks and assesses them in connection with appropriate risk responses aligned to the entity's risk appetite.	2120.A1 – IAs perform their own risk assessments in part to, alert management of any new risks or inadequately mitigated risks.
	2210 – Engagement Objectives Objectives must be established for each engagement.	N/A	2210.A2 – IAs must consider the probability of significant errors, fraud, noncompliance, and other exposures when developing the engagement objectives.
	2201 - Planning Considerations In planning the engagement, internal auditors must specifically consider: <ul style="list-style-type: none"> The significant risks to the activity, its objectives, resources, and operations and the means by which the potential impact of risk is kept to an acceptable level. 	N/A	N/A
Auditing-8: Suggestion – Consider a discussion on how management identifies and mitigate risks related to significant measurement uncertainties.			

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TAB F

RISK ASSUMED II

ATTACHMENT 2

Journal of Accountancy

At War—Disclosure of Measurement
Uncertainties, December 1998

AUGUST 2018

FINANCIAL REPORTING

A more uniform application of disclosure rules is needed.

At War—Disclosure of Measurement Uncertainties

BY JERRY L. ARNOLD AND WILLIAM W. HOLDER

It's no secret that financial statement users have long been concerned about the disclosure of measurement uncertainties in GAAP statements in order to help investors, creditors and others evaluate the uncertainty of some financial statement entries. Recent pronouncements call for additional disclo-

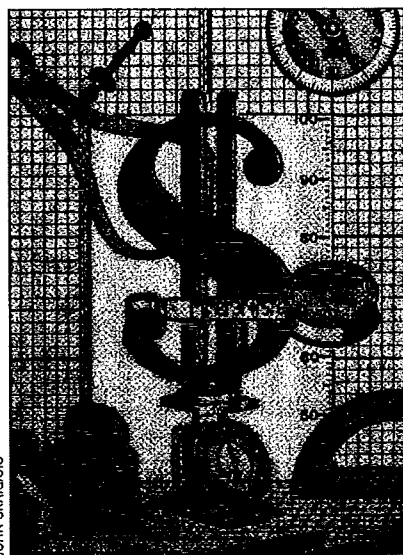
sures about a variety of uncertainties. These mandates—coupled with existing requirements—add up to a complex set of standards that often are confusing and difficult for companies to apply. Despite their complexity, the fact that those standards were approved at all acknowledges the view of standard setters that financial statements have not properly disclosed the degree of uncertainty in many accounting measurements.

Both FASB and AcSEC have called for companies to disclose accounting measurement uncertainties. However, the timing of such disclosures and their nature and extent varies widely. These variations exist despite a clearance process for new AcSEC standards that provides some degree of coordination with FASB. (If a majority of FASB

members do not object to a proposed AcSEC standard, the standard is considered to have been cleared by FASB.) The upshot is that companies may be required to make extensive disclosures when there is little uncertainty and, conversely, to make relatively few disclosures in conditions of great uncertainty. In some cases, the standards require different disclosures for similar economic phenomena, which confuses financial statement users, preparers and attestors.

CONCEPTUAL FOUNDATIONS

In the accounting literature, the term *measurement uncertainties* describes financial statement amounts that are inherently imprecise and must be estimated. FASB clearly recognizes that many numbers in financial statements are



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Steps to Improve Financial Statements

"5. Improve disclosures about the uncertainty of measurements of certain assets and liabilities.

"The amount of cash on hand at a balance sheet date may be known precisely, but an accrued liability for environmental cleanup costs may be very imprecise. Users want to understand better the uncertainties inherent in certain measurements to make better judgments about earnings, cash flow, opportunities, and risk.

"Because measurements often differ in their precision, companies should identify in financial statement notes the specific types of assets and liabilities subject to significant measurement uncertainties. For those assets and liabilities, companies should disclose how the reported amounts were derived and explain the estimates, assumptions, and judgments considered in their measurement."

Source: AICPA Special Committee on Financial Reporting, *Improving Business Reporting—A Customer Focus*. Copyright © 1994 by the AICPA.

The emergence in recent accounting standards of two inconsistent systems for reporting measurement uncertainties is cause for concern.

imprecise estimates and that conveying this imprecision to users is an important feature of financial reporting. To understand the disclosure problem, CPAs should know how recent standards fit in the conceptual objectives and characteristics of financial reporting and in the current standards for recording and reporting uncertainties. FASB Concepts Statement no. 1, *Objectives of Financial Reporting by Business Enterprises*, says that, "despite the aura of precision that may seem to surround financial reporting in general and financial statements in particular, with few exceptions the measures (in financial statements) are approximations, which may be based on rules and conventions, rather than exact measures." Further emphasizing the importance of estimates, Concepts Statement no. 2, *Qualitative Characteristics of Accounting Information*, asserts that "reporting accounting numbers as certain and precise if they are not is a negation of reliable reporting."

For many years, FASB Statement no. 5, *Accounting for Contingencies*, has been the most comprehensive standard on reporting measurement uncertainties. It requires CPAs to assess the likelihood an uncertain condition will affect an entity adversely and the amount (or range) of any related loss. (Gain contingencies also must be disclosed but are typically referred to only in general terms.) While financial statements that conform to this standard are viewed as historical in nature, in reality they routinely include predictions of uncertain future events and conditions. For

example, estimates of bad debts, obsolete inventory, sales returns and allowances, warranty obligations and even depreciation and amortization all require CPAs to predict future events.

Statement no. 5 says a company must accrue a loss by a charge to income if two conditions are met:

1. It is probable an asset has been impaired or a liability incurred at the date of the financial statements.
2. The amount of the loss can be reasonably estimated.

Statement no. 5, as interpreted, says the second condition is met if a range of loss can be estimated. A company must disclose that range. Interestingly, however, the standard says that disclosing the nature of an accrual, and in some circumstances the amount accrued, "may be necessary for the financial statements not to be misleading" (emphasis added). Thus, Statement no. 5 does not require disclosure of those relatively uncertain measurements although it clearly anticipates the accrual of amounts that only probably exist. Research suggests that most practitioners understand the term *probable* to mean approximately a 70% or 80% likelihood of occurrence. This means that even those amounts a CPA puts on the financial statements may be uncertain.

Given the importance of measurement uncertainties in financial reporting, the attention standard setters paid to this issue in recent pronouncements is appropriate. The emergence of the two markedly inconsistent sys-

EXECUTIVE SUMMARY

■ **THE FINANCIAL REPORTING COMMUNITY** is concerned about the lack of adequate disclosures about measurement uncertainties in GAAP financial statements. Some standards issued by FASB and AcSEC are complex, confusing and difficult to apply. Paradoxically, companies may be required to make extensive disclosures when there is little uncertainty and relatively little disclosure when there is great uncertainty.

■ **FOR MANY YEARS, FASB STATEMENT NO. 5** has been the most comprehensive standard on reporting measurement uncertainty. It requires CPAs to assess the likelihood of an uncertain condition and the amount (or range) of any related loss. SOP 94-6 says companies must disclose measurement uncertainties when it is reasonably possible an estimate may change in a way that would affect the financial statements.

■ **OTHER PRONOUNCEMENTS COVER DISCLOSURE** of uncer-

tainties, including some from the SEC. A review of these standards shows they are internally inconsistent and can produce illogical results or even misleading inferences. Standard setters should adopt a comprehensive approach that requires companies to disclose measurement uncertainties.

■ **THE AICPA SPECIAL COMMITTEE ON FINANCIAL** reporting recommended identifying in financial statement notes the specific types of assets and liabilities subject to significant measurement uncertainties, how the reported amounts were derived and any estimates, assumptions and judgments considered.

■ **ADOPTING THE SPECIAL COMMITTEE'S** recommendations will substantially improve the disclosure of measurement uncertainties. However, standard setters need to take other steps to ensure a more comprehensive application of disclosure rules. The result should be improved decision making without a substantial increase in costs.

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With Statement no. 132, FASB has begun to require companies to disclose accounting estimates to a much greater extent than in the past.

tems described below is, however, cause for concern.

VARIATIONS IN UNCERTAINTY DISCLOSURE

The most recent FASB pronouncement requiring companies to disclose measurement uncertainties is Statement no. 132, *Employers' Disclosures about Pensions and Other Postretirement Benefits*. It requires companies to disclose the assumptions they use in estimating their net liability for pensions and other postemployment benefits. Exhibit 1, at right, summarizes Statement no. 132 and the other FASB pronouncements requiring uncertainty disclosures. Each standard in exhibit 1 requires routine disclosure of the information identified without regard to the measurement's relative uncertainty. It is clear FASB has begun to require companies to disclose accounting estimates to a much greater extent than in the past.

SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*, takes a different approach. It says companies must disclose the existence of measurement uncertainties if it is reasonably possible that the underlying accounting estimate may change within a year of the financial statement date to an extent that would materially affect the financial statements.

The contrasting results of the two approaches and Statement no. 5 are summarized in exhibit 2, page 103. Exhibit 2 also shows the circumstances requiring disclosure and the differences that result from those standards. These differences and the inherent difficulties of applying the several standards are readily apparent in the treatment of a long-lived asset impairment. FASB Statement no. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*, requires disclosures whenever a company recognizes a material impairment loss. Interestingly, Statement no. 121 employs a specific "event" trigger to decide when a company needs to recognize an impairment rather than using the probability test required by Statement no. 5 and SOP 94-6. It is difficult for companies to discern whether and under what circumstances SOP 94-6 would require them to disclose the possible impairment of a long-lived asset. Under Statement no. 121, an impairment loss would not be recognized.

Exhibit 1: FASB-Required Uncertainty Disclosures

Standard	Subject	Disclosures Required
Statement no. 107	Financial instruments—disclosure only—no financial statement adjustment.	For all financial instruments: fair value and methods and significant assumptions used to make estimate.
Statement no. 121	Long-lived assets.	For long-lived assets written down due to an impairment: "how fair value was determined."
Statement no. 123	Stock-based compensation.	The method and significant assumptions used during the year to estimate the fair values of options, including specific elements.
Statement no. 124	Investment accounting by not-for-profit organizations.	Methods and significant assumptions used to estimate the fair values of investments other than financial instruments (such as oil and gas properties and real estate).
Statement no. 125	Mortgage servicing rights.	The fair value of capitalized mortgage servicing rights and the methods and significant assumptions used to estimate that fair value.
Statement no. 132	Amendments to Statement no. 106: Postemployment benefit obligations other than pensions. Amendments to Statement no. 87: Defined benefit pension plans.	Assumptions for discount rate, rate of compensation increase, long-term rate of return on plan assets, rate used to measure costs of benefits, and certain sensitivity-related assumption information.

The following examples further illustrate the reporting distinctions between FASB standards and SOP 94-6.

Example 1. FASB Statement no. 107, *Disclosures about Fair Value of Financial Instruments*, requires companies to disclose the fair value of long-term debt and the related methods and significant assumptions used in making those estimates. Estimating the fair value of debt instruments not actively traded (such as notes payable to banks and debt of nonpublic companies) is simple and straightforward. For example, if a company's creditworthiness has not changed since the debt was issued, it may be necessary only to identify the interest rate a lender would charge for a similar loan at the balance sheet date and apply that rate to the instrument's future cash flows. While the resulting estimate may not be subject to significant uncertainty, the disclosures would nevertheless be substantial and extend beyond an estimate of fair value to include the methods and significant assumptions.

continued on page 103

It makes no sense that a common and more uncertain estimate requires less disclosure than a common and less uncertain estimate.

Example 2. On the other hand, consider the disclosure standards that apply to a liability for product warranties. Although the amount a company accrues might be subject to much greater uncertainty than the long-term debt discussed above, it is not required to make a disclosure unless the financial statement preparer believes certain conditions exist. Specifically, he or she must conclude, based on known information, that it is reasonably possible the amount the company accrues will change in the near term due to one or more "future confirming events" and that such a change will be material to the financial statements. Even if those conditions are met, the SOP 94-6 disclosures extend only to the nature of the uncertainty and an indication that it is at least reasonably possible a change in the estimate will occur soon. Statement no. 5, on the other hand, calls for a company to disclose the range of a contingent loss if a single point estimate is not possible. The statement does not, however, address the probability necessary to establish such a range. SOP 94-6 calls for companies to disclose the existence of any reasonably possible material variation in the amount accrued under Statement no. 5. The required disclosures, however, do not extend to how the estimate was made or to the assumptions used.

It seems at best illogical that in comparing the examples, example 2, which might involve a much greater level of uncertainty, results in substantially less information about the methods and assumptions that are used to estimate the uncertainty.

The SEC view. While nonpublic companies are not required to apply SEC pronouncements to their financial statements, these pronouncements do have an indirect impact on general financial reporting; hence their relevance here. The SEC staff underscored the need for additional product liability disclosures in Staff Accounting Bulletin (SAB) no. 92, *Accounting and Disclosures Relating to Loss Contingencies*. The staff issues bulletins only when it believes additional practice guidance is necessary. SAB no. 92 says, "The staff believes that product (and environmental) liabilities typically are of such significance that detailed disclosures regarding the judgment and assumptions underlying the recognition and measurement of the liabilities are necessary."

Some examples of specific disclosures that a company might make include

- Circumstances affecting the reliability and precision of loss estimates.

Exhibit 2: Disclosure of Accounting Uncertainties

ISSUE	STANDARD		
	FASB Statement no. 5	SOP 94-6	Recent FASB Statements
Conditions requiring disclosure	Reasonably possible loss. Probable loss with only a range of loss estimable. Gain contingency.	Accounting estimate that has reasonable potential to change materially in the near term due to one or more future confirming events.	Mere occurrence of transaction or event.
Disclosure required	Nature and amount of possible loss or statement that amount cannot be reasonably estimated. Range of loss. General nature (nonspecific).	Nature of the uncertainty. Indication that it is at least reasonably possible a change in estimate will occur in the near term.	Significant assumptions. Methods used.

- The extent to which unasserted claims are reflected in any accrual or may affect the magnitude of the contingency.

- The time frame over which the accrued or presently unrecognized amounts may be paid out.

- Material components of the accruals and significant assumptions underlying the estimates.

Other inconsistencies. Another example of seemingly inconsistent disclosure requirements relates to a variety of assets. FASB Statement no. 125, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities* (which superseded FASB Statement no. 122, *Accounting for Mortgage Servicing Rights*), requires loan servicers to disclose the methods and significant assumptions they use to estimate the value of mortgage servicing rights reported as assets on their financial statements. While many of these estimates are rather precise and do not involve great uncertainty, disclosures are required in all cases in which mortgage servicing rights are reported.

In contrast, consider the need for estimates in valuing the inventory of a manufacturer, wholesaler or retailer. GAAP requires that inventory be valued at the lower of cost or market. The upper bound of market is net realizable value—estimated selling price less cost to complete the sale. Thus, the value assigned to inventory on a balance sheet is subject to an accounting estimate in all cases. That is, estimates of future events are necessary to determine market, and cost must be related to market to determine the current value of the inventory on the financial statements. SOP 94-6, however, does not require companies to disclose this fact unless, based on known information, it is rea-

Standard setters should adopt a single system of disclosing how imprecise financial statement numbers are instead of the piecemeal approach now used.

sonably possible the estimate will change in the near term due to one or more future confirming events and the effect of the change will be material. In no case does SOP 94-6 require a company to disclose the methods and significant assumptions used to estimate the value of the inventory.

We believe the disclosures resulting from these two estimates of asset values are inconsistent and possibly confusing. It makes no sense that a more common and more uncertain estimate requires less disclosure and in fewer circumstances than does a more common estimate that is less uncertain.

ACTIONS TO IMPROVE PRACTICE

The disclosure of measurement uncertainties in GAAP financial statements is governed by a series of standards that are complex, sometimes inconsistent with each other, require substantial professional judgment and can produce illogical results. We believe standard setters should adopt a comprehensive approach requiring companies to disclose measurement uncertainties. While the conceptual basis for each of the FASB and AcSEC standards can be understood individually, together they confuse financial information users and others. In extreme cases, they may even result in misleading inferences. Measurement uncertainties pervade financial statements and relate to some of the most significant information in the statements. All standard setters should adopt a single system of disclosing just how imprecise financial statement numbers are instead of the piecemeal approach now used. Regardless of the system standard setters select, it should be applied to all financial statement items.

The AICPA special committee on financial reporting studied this topic intensively. Its report, *Improving Business Reporting—A Customer Focus*, was based on extensive work with a large number of financial information users. It recommended

- Identifying in financial statement notes the specific types of assets and liabilities subject to significant measurement uncertainties.

- Disclosing—for assets and liabilities subject to significant measurement uncertainties—how the reported amounts were derived and explaining the estimates, assumptions and judgments about the future events considered in their measurement.

The special committee based its recommendations in part on its research into the needs of investors and creditors. Both groups said disclosure of measurement uncertainties and the assumptions and methods used to make the underlying estimates would be useful to them in predicting future earnings and cash flows and in assessing the reasonableness of the accounting numbers in financial statements. The special committee's recommendations are a blend of the two disclosure systems described earlier. Like SOP 94-6, not all measurement uncertainties require disclosure. Criteria such as those in the SOP would determine whether the degree

of uncertainty and related materiality of an accounting estimate must be disclosed. Once a company determines disclosure is necessary, however, the disclosures the special committee recommends would extend to the methods and significant assumptions used in making the estimate. This type of information has been a hallmark of recent FASB standards but is noticeably absent from SOP 94-6.

Each of FASB's last four standards requires disclosure of the methods and significant assumptions for the estimates in those standards, regardless of the inherent degree of uncertainty. But many previous FASB standards contain no such disclosure requirements even though important estimates, based on forecasting future events, are frequently necessary when applying them. Examples include estimates necessary in complying with these FASB statements:

- Statement no. 13, *Accounting for Leases*.
- Statement no. 43, *Accounting for Compensated Absences*.
- Statement no. 67, *Accounting for Costs and Initial Operations of Real Estate Projects*.
- Statement no. 91, *Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases*.

In addition, the accounting standards established by predecessor standard-setting organizations (the AICPA Accounting Principles Board and committee on accounting procedure) have similar characteristics in that they require a large number of accounting estimates but not the disclosure of the existence of those estimates or the methods and significant assumptions used in their application. We believe the differences in accounting standards discussed above result in unnecessarily complex financial statement disclosures that are inconsistent and may confuse financial statement users. To solve this problem, FASB should undertake a project to unify or harmonize the disclosure of measurement uncertainties in financial statements.

While adopting the special committee's recommendations will substantially improve the disclosure of measurement uncertainties, it will not resolve all of the related issues. The special committee recommended disclosing only certain significant estimates depending on whether the measurement uncertainty is particularly sensitive to relatively small changes in an assumption, the likelihood that future events could be very different from the assumed future events or the existence of possible changes in the estimate due to changes in assumptions about the future. These criteria are similar to those in SOP 94-6 and give CPAs the variables to decide whether to disclose a particular uncertainty. Such criteria are subject to different interpretations; similarly situated professionals with the same facts might come to different conclusions about the need for disclosure in a particular practice situation. As such, the criteria may not result in similar information in similar reporting circumstances. In-

deed, research indicates practitioners have difficulty making consistent judgments about whether to disclose uncertainties under Statement no. 5.

Finally, SOP 94-6 disclosures are based on information that is known to management. Most accounting standards establish the measurement or disclosure standard and implicitly require management to obtain the information necessary to apply it. SOP 94-6 is a marked exception to this practice. By not requiring management to obtain sufficient information about the imprecision of accounting measurements, the SOP differs from similar standards.

Different managements may accumulate and possess widely different levels of information. One consequence of this is that well-informed managers disclose more measurement uncertainty information than less informed managers. As a result, the financial statements of companies with better informed management appear more uncertain and imprecise when the opposite may actually be the case.

In light of FASB's ongoing project on disclosure effectiveness and the concerns of others about the possibility of standards and disclosure overload, a call for additional disclosures cannot be made lightly. Nevertheless, both the Association for Investment Management and Research position paper *Financial Reporting in the 1990's and Beyond* and the special committee recognize that more information about measurement uncertainties in financial statements would be well received. Therefore, subject to the outcome of the FASB disclosure effectiveness project, we believe companies should disclose material measurement uncertainties and that those disclosures include the methods and significant assumptions. Such a requirement would

- Reduce the judgments companies must make in deciding whether to disclose measurement uncertainties.

- Result in more similar disclosures in similar fact situations.

- Reduce the claims of inadequate disclosure of uncertainties by potential litigants.

- Not substantially add to the costs of preparing financial statements.

AT WHAT COST?

The expense of gathering and providing the disclosures recommended above would not be large. In almost all cases in making the original estimates companies already have developed the information needed to make the recommended disclosures. While other costs, particularly competitive issues, should be considered, it is difficult to

envision that cost would make this recommendation prohibitive. A more uniform application of disclosure rules would improve decision making and the benefits would greatly exceed any implementation and compliance expenses. FASB, therefore, should move swiftly to generalize the accounting measurement disclosure standards they have already begun to issue. ■

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TAB F

RISK ASSUMED II

ATTACHMENT 3

Department of Education
2017 MD&A, pages 10-12

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FORWARD-LOOKING INFORMATION

This section summarizes information pertinent to the Department's future progress and success.

DIRECT LOAN PROGRAM

The Department's largest program, the William D. Ford Federal Direct Loan (Direct Loan) program, provides students and their families with funds to help pay for their postsecondary education costs. Easing the burden of student loan debt is a significant priority for the Department. The following is a discussion of (1) the steps the Department has taken to ensure that student debt is manageable and (2) the risks inherent in estimating the cost of the program.

Managing Student Loan Debt

Each year, federal student loans help millions of Americans obtain a college education—an investment that, on average, has high returns. While the average return to a college degree remains high, substantial inequities in outcomes exist, and some students leave school poorly equipped to manage their debt, whether due to limited labor market opportunities or high debt.

Traditionally, federal loans of this type have had flat 10-year repayment schedules, making it difficult for borrowers to pay at the start of their career when their salaries are lower. The recent expansion of income-driven repayment plans grants students the opportunity for greater financial flexibility as it pertains to their monthly payment. For more details on these plans, visit FSA's

How to Repay Your Loans Portal.

As the labor market declined during the financial crisis of 2008, serious challenges in student debt repayment came to the forefront of conversations. The availability of income-driven repayment plans like Pay As You Earn (PAYE) and an improving labor market has led to substantial improvement, signifying Departmental progress in the focus area of higher education, namely, its efforts to innovate loan program guidelines in order to make student loan debt more manageable for borrowers across the board. Recent trends in student loan repayment data show that:

- More than 80 percent of Direct Loan recipients with loans in repayment are current on their loans.

- Growing numbers of borrowers are taking action and responsibility with regard to their student loans when they are in need of modifications and support. As of June 2017, nearly 6.3 million Direct Loan recipients were enrolled in income-driven repayment plans, representing a 19 percent increase from June 2016 and a 62 percent increase from June 2015.

The Department has made progress in this area and continues to work relentlessly to make student debt more manageable. Looking to the future, the Department will build on its recent successes by:

- Conducting significant outreach efforts to inform student loan borrowers of their repayment options, including the protections provided by income-driven repayment plans.
- Ensuring that borrowers have access to an affordable repayment plan, high-quality customer service, reliable information, and fair treatment.
- Continuing to support additional tools like the College Scorecard and Financial Aid Shopping Sheet to increase transparency around higher education costs and outcomes, in an effort to help students and families make informed decisions before college enrollment.

Managing Risks and Uncertainty Facing the Direct Loan Program's Cost Estimates

Direct Loan program costs are estimated consistent with the requirements of the *Federal Credit Reform Act of 1990*. Under the Act, the future costs and revenues associated with a loan are estimated for the entire life of the loan, up to 40 years in this case. The actual performance of a loan cohort tends to deviate from the estimated performance during that time, which is not unexpected given the inherent uncertainty involved in developing estimates. There are four types of risk that make estimating lifetime program costs a difficult task.

Legislative, Regulatory, and Policy Risk

There are inherent risks from the possibility that the cost structure of the Direct Loan program may be altered through legislative, regulatory, or administrative action. In addition, recent legislative, regulatory, and policy

action may be difficult to interpret with regard to effects on financial modeling and estimation, given the lack of actual trend data availability. Some examples of current risks include the following:

Income-Driven Repayment Plans: Several new income-driven repayment plans have been introduced in recent years, including Income-Based Repayment, PAYE, and Revised Pay As You Earn. In general, the proliferation of plans has made income-driven repayment terms more generous (and more costly to the government) and made the plans available to a greater number of borrowers. Having more plans complicates repayment plan selection, since the tradeoffs between available plans vary by borrower and may not always be entirely clear. Selected comparisons between projected originations and borrower repayments under the different income-driven repayment plans are available on the **Department's website**. The Department has also engaged in outreach campaigns to broaden borrower awareness of these plans. However, future commitment to market and increased participation in these plans are areas of uncertainty.

Public Service Loan Forgiveness: Enacted in 2007, the Public Service Loan Forgiveness (PSLF) program allows a Direct student loan borrower to have the balance of their Direct student loans forgiven after having made 120 qualifying monthly payments under a qualifying repayment plan, while working full time for a qualifying public service employer (such as government or certain types of nonprofit organizations). In general, forgiveness provided via PSLF raises the cost of the Direct Loan program; however, there is still uncertainty as to how many borrowers will take advantage of the program. Much of this uncertainty arises because borrowers do not need to apply for the program until after having made the 120 qualifying monthly payments. While data on current applications is helpful to gauge potential forgiveness, it may not be representative of final participation figures. In addition, since the first date by which a borrower could receive forgiveness under this program is October 1, 2017, the Department does not yet have a robust set of actual forgiveness data. The available data on borrowers who have already certified their employment, nearly 740,000 borrowers as of September 2017, is less valuable than it appears since it does not track breaks in their repayment or qualifying employment. The Department continues to remain informed on, and manage the risk that may arise in relation to, the uncertainty about the effect of further borrower outreach on boosting participation in the PSLF program.

Borrower Defense: In May 2015, Corinthian Colleges, Inc. (Corinthian), a publicly traded company operating numerous postsecondary schools that enrolled over 70,000 students at more than 100 campuses nationwide, filed for bankruptcy under deteriorating financial conditions and while subject to multiple state and federal investigations. The Department received thousands of claims for student loan relief from Corinthian students under a provision in the *Higher Education Act of 1965* (HEA) referred to as "borrower defense." Valid borrower defense claims would lead to the discharge of borrower debt, thus increasing the cost of the Direct Loan program to taxpayers. However, it is unknown how many of the claims are valid. Since Corinthian, several other postsecondary schools have closed under similar circumstances, including ITT Technical Institute.

In August 2015, the Department initiated a rulemaking process to establish a more accessible and consistent borrower defense standard to clarify and streamline the borrower defense process to protect borrowers. The legality of this rule has since been challenged in court (*California Association of Private Postsecondary Schools v. DeVos*) and certain provisions of the rule have been subsequently delayed. In addition, the Department has initiated a new rulemaking process to consider potential changes to the original rule. The overall level of activity that could lead to valid borrower defense claims, particularly in the for-profit postsecondary sector, coupled with the uncertainty as to the framework of the final rule, make projections as to the financial impact exceedingly difficult. The Department continues to monitor instances of this risk factor to its programs.

Estimation Risk

Actual student loan outcomes may deviate from estimated student loan outcomes, which is not unexpected given the long projection window of up to 40 years. The Direct Loan program is subject to a large number of future borrower level events and economic factors that heavily impact the ultimate cost of issued loans. For example, estimates that need to be made for loans originating in FY 2017 include how long students will remain in school; what repayment plan will be chosen; whether the loan will be consolidated; whether the borrower will die, become disabled, bankrupt, or have another claim for discharge or forgiveness (closed school, borrower defense, etc.); if the loan will go into deferment or forbearance; if the loan will go into default and, if so, what collections will be received on the defaulted loan; and, if the loan is in income-driven repayment, what the borrower's employment (public sector or not) and income and family status will be over

the next 25 years. These types of projections are not only extremely difficult to make but also are subject to change if future student behaviors deviate from past experience. Changes in private student loan markets, such as the recent increase in refinancing of federal student loans into private student loans, also add a layer of uncertainty to student loan estimates. Lastly, the Direct student loan portfolio has grown from around \$380 billion in FY 2011 to around \$1.06 trillion as of the end of FY 2017. This growth naturally results in increased re-estimates, since a re-estimate worth 1 percent of the portfolio today would be more than twice as large as a similar re-estimate in FY 2011 (\$10.6 billion vs. \$3.8 billion).

Macroeconomic Risk

The ultimate amount, timing and value of future borrower repayments under the Direct Loan program are heavily affected by certain economic factors, especially since the introduction of income-based repayment plans. Some examples include the following:

Interest Rates: Direct Loan subsidy estimates are very sensitive to changes in interest rates. Recent interest rate history has been atypical, as interest rates have continued to remain lower than their historical averages. Under the current program terms, the fixed borrower rates for direct loans are established in advance of the upcoming school year, while the Treasury fixed interest rate on borrowings to fund those loans is not set until after those awards are fully disbursed, which can be as much as 18 months later. Unexpected changes in interest rates during this time can significantly impact the subsidy cost of these loans.

Unemployment: The financial crisis of 2008 and ensuing spike in unemployment rates had a dramatic effect on both student loan volume and student loan performance. Student loan volume peaked along with unemployment, as many displaced workers sought higher education opportunities. Student loan performance suffered as many borrowers repaying their loans were left with much less disposable income with which to make their loan payments. For example, the default rate for students was at a high of 14.7 percent for loans entering repayment in 2010, while the most recent rate is 11.5 percent for loans entering repayment in 2014. While recessions and economic downturns are cyclical phenomena, their exact timing and impact on the cost estimates remain an area of uncertainty.

Wage Growth: The estimated costs of income-driven repayment plans are largely dependent on trends in observed wage growth. To the extent that future wage growth deviates significantly from prior wage growth,

actual costs of income-driven repayment plans may deviate from projected estimated costs. The Department continues to manage risks in this area by continuing to learn about its borrower base and remain informed on such labor market statistics.

Operational Risk

Unforeseen issues in administering and servicing student loans may impact the cost estimates. For example, in March 2017, a tool used to automatically transfer a family's tax information to both student aid applications and income-driven repayment (IDR) plan applications was taken down due to security concerns. Although usage of the tool for IDR recertification has since been brought back up, it is yet uncertain what, if any, impact this outage may have had on student loan cost estimates. However, this example highlights that there is an inherent risk that future, unpredictable disruptions in the administrative status quo may impact student loan cost estimates.

CONTINUOUS IMPROVEMENT

Improving critical infrastructure, systems, and overall capacity, and ensuring sound strategic decision making regarding allocation of resources are essential to the Department's future progress and success. Exploring the expanded use of shared services and incorporating enterprise risk management into Department decision making are two of the Department's key initiatives.

Shared Services

The Department of Education uses shared services where feasible and practical, including payroll and travel. The Department will explore other options to further leverage shared services for other mission support areas in the coming years.

Enterprise Risk Management

The Department plans to implement Enterprise Risk Management (ERM) practices by integrating its existing risk management processes and governance bodies into a suitable ERM framework and including risk as a central element in all critical day-to-day and strategic decision-making activities. The Department will also develop a more risk-aware culture that facilitates increased focus on the wide range of risks the Department faces and fosters more open discussions about how those risks might impact the accomplishment of the Department's mission and whether allocation of resources is aligned to best mitigate risks to an acceptable level. The Senior Management Council will oversee the implementation of ERM in accordance with OMB Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*.

TAB F

RISK ASSUMED II

APPENDIX A

Risk Assumed – Phase II:
Project History and Milestones

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PROJECT OBJECTIONS

The issuance of [Statement of Federal Financial Accounting Standards \(SFFAS\) 51, Insurance Programs](#), on January 18, 2017, effectively concluded the first phase of risk assumed. For the history of the risk assumed project and milestones for phase I, please see <http://www.fasab.gov/ra-insurance-programs/>.

In phase II, the Board will holistically review significant risk events other than adverse events covered by SFFAS 51, Insurance Programs, to determine accounting standards that provide concise, meaningful, and transparent information regarding the potential impact to the fiscal health of the federal government.

HISTORY OF BOARD DELIBERATIONS

October 19-20, 2016 Board Meeting

At the October 19, 2016, Board meeting, the risk assumed – phase II began.

The Board reviewed staff's high-level gap analysis presented in table 1: Analysis of Federal Accounting Standards in Relation to the IMF [International Monetary Fund] Recommendations for Disclosing Fiscal Risks and table 2 from the Australian Statement 8: Statement of Risks.

The Board agreed that an extensive gap analysis is necessary to determine the risk information that the consolidated financial report of the U.S. Government includes and how it is presented, the extent to which FASAB can align with enterprise risk management (ERM) as prescribed by The Office of Management and Budget Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*, and the Board's preference for presenting risk assumed information going forward.

For the gap analysis, the Board agreed to determine the following:

- If federal government reporting is transparent enough for estimates and uncertainty around significant risks with a focus on broad risk categories, such as an economic downturn where revenues go down and benefit program costs go up
- If there is a significant gap in reporting to be addressed for individual risk items, such as treaties, commitments by the federal government, and intergovernmental dependencies with state and local governments
- How to present summarized risk events at the government-wide level for cross-cutting agency efforts, such as disaster relief, with access to detail at the agency level

December 19-20, 2016

At the December 20, 2016, Board meeting, the Board approved a framework for the risk assumed gap analysis. Members agreed that categories should not be a laundry list of events but instead should be principle-based and broad enough to encompass current and future significant risk events. The scope will include past and future events and whether uncertainty is adequately explained. Staff will review past financial reports to understand what was included before and after recent large events, such as the 2008 financial crisis, at the agency and government-wide levels.

Staff will utilize roundtable discussions to discover if current disclosures are clear, relevant, and add value in relation to the available standards. If roundtable participants do not feel that current disclosures are clear, relevant, or valuable, the group will discuss what is missing and should be included.

Staff will work on the gap analysis over the next several months and present findings and recommendations to the Board upon completion.

June 21-22, 2017

Members did **not** want to include discussions that

- predict unforeseen catastrophes and their potential financial effect;
- trends for using emergency funding as an indicator of fiscal exposure to risk shocks;
- comparisons of estimates to actuals;
- how past risk events were managed; or
- a separate risk section [as presented in the USAFacts 10-K Report -risk section—Item 1A Risk Factors] within federal financial reports.

Members **did want to**

- include past events that affect the current financial position;
- include and define major risk events with a relationship to long-term sustainability that are not already reported;
- use the principle-based broad risk categories as a foundation for continuing the gap analysis; and
- present meaningful streamlined information as a broad analysis rather than specific details.

October 25-26, 2017

According to the project objective, the risk assumed project strives ... to determine accounting standards that provide concise, meaningful, and transparent information regarding the potential impact to the fiscal health of the federal government. However, understanding what risks affect U.S. financial sustainability and why they do is very challenging. Therefore, as part of the ongoing gap analysis, staff reviewed SFFAS 2, Accounting for Direct Loans and Loan Guarantees, to learn how risk is currently disclosed in the financial statements.

Staff conducted research with the Department of Education, Department of Housing and Urban Development, Small Business Administration, and the Government Accountability Office and learned that agencies cannot specifically identify their users. In addition, reporting is inconsistent, extremely detailed, and burdensome. This not only affects preparers, but also users.

On October 26, 2017, staff presented these findings at the Board meeting to determine if members wanted to pilot amendments to SFFAS 2 to develop a framework for how to address risk assumed holistically.

Members agreed and requested that staff

- identify user groups to analyze risk factors, beyond those used to calculate credit subsidy reestimates, to help build a risk profile;
- develop a framework for how to discuss measurement uncertainty;
- consider how to discuss the “why” behind the “what” of risk;
- present sensitivity analysis at a future meeting; and
- pilot amendments to SFFAS 2 to develop a model/framework for how to address risk assumed holistically.

FEBRUARY 21-22, 2018

The Board hosted an **ERM risk profiling education session**. The panel discussed the following:

- Ms. SallyAnne Harper, a founding member and immediate past president of the Association for Federal Enterprise Risk Management (AFERM), provided a high-level review of federal ERM.
- Mr. Tom Brandt, the Chief Risk Officer at the Internal Revenue Service (IRS) and AFERM President Elect, presented a review of IRS’s risk profiling

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processes, including risk identification, categorization, assessment, quantification, measurement, and modeling.

- Mr. Mike Wetklow, Deputy Chief Financial Officer (CFO) and Division Director for Financial Management, National Science Foundation (NSF), presented NSF's ERM implementation process, including a discussion about risk appetite as an integral part of risk profiling.
- Mr. Daniel Fodera, Lead Management Analyst, Program Management Improvement Team, Directors of Field Services, Federal Highway Administration (FHWA), explained the tools used in ERM risk profiling, including the use of a heat map at FHWA.

The Board learned the following main points:

- Risk assessment is integrated into strategic planning and investment decision making to determine priorities and objectives.
- Senior management is responsible for setting risk appetite to determine the most significant risks that could impact the organization's strategic mission.
- Risk appetite includes an analysis of both the likelihood and impact of events.
- Most agencies are just beginning to develop their ERM processes; a few are moving into a more mature model.

Directly following the education session, the Board discussed whether to leverage ERM risk profiling as identified in OMB Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*.

The Board agreed that staff should explore how to incorporate OMB A-123 risk profiling in the project; however members noted the following concerns:

- The Board should determine what type of risks to focus on: performance/programmatic—MD&A and/or financial impact—disclosure notes.
- The Board should determine what risks are not currently included in financial reports through working groups and determine the consequences of not including certain risks.
- The Board should consider producing best practices guidance if the standards are complete and agencies need additional help.
- The Board should prevent risk identification from turning into a compliance exercise that might affect the ERM process.

- The Board should consider how agency internal ERM processes might be affected by external financial reporting and the related audit.

APRIL 25-26, 2018

During the April 2018 meeting, staff presented the gaps for reporting RA as identified from the nine round tables conducted over the past year. Many round table participants were interested in reporting on full program costs, including key risk factors and assumptions. Some believed a **clearer understanding of uncertainties regarding estimates** would help facilitate better management decisions and **an understanding of financial performance**. These gaps will help to establish a framework for reporting RA holistically in the financial reports. This framework may include new or updated note disclosures and improvements to management's discussion and analysis (MD&A).

For MD&A improvements the RA and MD&A Improvements projects collaborated to present recommendations to improve MD&A. The projects collaborated because the findings from the separate round tables were the same—**financial statement users want to understand the financial performance for major programs and not have to sift through dense, duplicative strategic performance information that can be found in the agency performance report**. As a result, staff recommended a new Statement that would maintain the current principles but rescind Statement of Federal Financial Accounting Concepts (SFFAC) 3, *Management's Discussion and Analysis*, and Statement of Federal Financial Accounting Standards (SFFAS 15), *Management's Discussion and Analysis*.

The Board directed staff to consider previously discussed concerns regarding MD&A, review existing MD&A concepts and standards, and determine what changes might be needed. Staff will also collaborate with the Office of Management and Budget to determine whether form and content guidance could help guide improvements.

JUNE 27-28, 2018

The RA and MD&A Improvements projects continued to collaborate to request a more integrated format for MD&A.

Members agreed to remove the requirement to segment information in the MD&A. SFFAS15 currently requires management to discuss topics in discrete sections of the MD&A. Removing this requirement would allow flexibility in formatting MD&A and facilitate an integrated discussion about financial performance. The discussion should include the rationale for material changes in accounting elements, such as assets, liabilities, and/or net costs.

Staff originally presented a framework that would include a financial performance discussion for each responsibility segment presented in the statement of net cost. The discussions would inform users on the financial impact of key risks to the segment. However, the Board determined that key risk factors may affect entities at different levels and requested staff to present an alternative framework. The framework should be flexible enough to integrate risks that had or will have a significant financial impact at the level best defined by management.

Members requested that staff develop principle-based standards to address the different types of risks that may have a significant financial impact on the government-wide financial position, condition, or results of operations. To tell the entire financial story, members believed that management should discuss what actions are being taken to address current and future risk drivers, as well as forward-looking information.