Research and development

Handbook

US GAAP

August 2023

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The many connections of R&D accounting

US GAAP covers two distinct areas of accounting related to R&D: how to account for costs an entity incurs in its R&D activities, and how parties to an R&D funding arrangement account for that arrangement.

The FASB’s guidance has been around a long time – the guidance on R&D costs dates back to 1974 and FASB Statement No. 2, while the guidance on R&D funding arrangements dates back to 1982. Since then, the guidance has remained largely – although not entirely – unchanged.

As businesses look for new ways to innovate and finance their R&D activities, application questions continue to emerge. Our objective with this publication is to help you make the judgments associated with these application issues. We start with the basics of R&D accounting and expand to provide insights, examples and perspectives based on our years of experience in this area.

There are many connections to other accounting topics, and we identify common issues that will require you to consult our handbooks on other Topics, such as business combinations, consolidation, software and website costs, debt and equity financing, and derivatives and hedging.

Viewed from that angle, this one resource provides you with a roadmap to resolving the many varied issues that can arise with R&D activities.

Nick Burgmeier
Department of Professional Practice, KPMG LLP
About this publication

The purpose of this Handbook is to assist in accounting for R&D costs and R&D funding arrangements.

Organization of the text

The chapters include excerpts from the FASB’s Accounting Standards Codification® Subtopics 730-10 (R&D costs) and 730-20 (R&D funding arrangements).

Our commentary is referenced to the Codification and other literature, where applicable. The following are examples.

- 730-10-15-2 is paragraph 15-2 of ASC Subtopic 730-10
- SAB 5O.Q1 is Question 1 of SEC Staff Accounting Bulletin Topic 5.O, Research and Development Arrangements
- AAG-RDA 3.14 is paragraph 3.14 of AICPA Accounting and Valuation Guide, Assets Acquired to be Used in Research and Development Activities
- TQA 2260.03 is section 2260.03 of the AICPA’s Technical Questions and Answers
- 1994 AICPA Conf is the 1994 AICPA National Conference on Current SEC Developments

AICPA Accounting and Valuation Guide

This Handbook refers to the AICPA Accounting and Valuation Guide, Assets Acquired to be Used in Research and Development Activities, as the ‘AICPA’s IPR&D Guide’.

This Guide provides guidance from an AICPA task force and AICPA staff on the initial and subsequent accounting for, valuation of, and disclosures related to acquired IPR&D assets. The IPR&D Guide was issued in December 2013 to identify leading practices in the financial reporting of assets acquired to be used in R&D activities, including specific IPR&D projects.

Although the IPR&D Guide has no authoritative status, its guidance is used as a resource by preparers, valuation professionals and auditors in all industries in identifying, valuing and reporting IPR&D assets acquired in business combinations and asset acquisitions.
August 2023 edition

This edition of our Handbook has been updated to incorporate new or updated interpretive guidance. Compared to the August 2022 edition, a Question has been added and is identified with **.

In connection with this edition, Accounting Standard Updates published through July 31, 2023 have been incorporated.

Abbreviations

We use the following abbreviations in this Handbook:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
</tr>
<tr>
<td>IP</td>
<td>Intellectual property</td>
</tr>
<tr>
<td>IPR&amp;D</td>
<td>In-process research and development</td>
</tr>
<tr>
<td>MD&amp;A</td>
<td>Management's Discussion and Analysis</td>
</tr>
<tr>
<td>PTRS</td>
<td>Probability of technical and regulatory success</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
</tbody>
</table>
1. Executive summary

Topic 730 on research and development provides accounting and reporting guidance for costs incurred by entities engaged in R&D activities (Subtopic 730-10) and R&D funding arrangements (Subtopic 730-20).

R&D activities

Subtopic 730-10 has a single accounting model for accounting for research and development activities that are in its scope.

<table>
<thead>
<tr>
<th>Research &amp; Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities to develop or significantly improve a product or service, or a process or technique, whether those items are intended for sale or use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>The planned search or critical investigation aimed at discovery of new knowledge with the hope that such knowledge will be useful in developing or significantly improving a product or process, and the translation of that research into a plan or design for a new product or process or improvements to an existing product or process.</td>
<td>The translation of research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process, whether intended for sale or use. It includes the conceptual formulation, design, and testing of product alternatives, construction of prototypes, and operation of pilot plans.</td>
</tr>
</tbody>
</table>

Example: Laboratory research aimed at discovering new knowledge | Example: Design, construction and testing of preproduction models |

Scope exceptions

- R&D conducted for others under a contractual arrangement
- Activities unique to entities in the extractive industries
- The acquisition, development or improvement of a process by an entity for use in its selling or administrative activities
- Routine or periodic alterations to existing products, production lines, manufacturing processes and other ongoing operations even though those alterations may represent improvements
- R&D assets acquired in a business combination or an acquisition by a not-for-profit entity
- Marketing research or testing
- Certain software development costs

Read more: Section 2.2
R&D costs

R&D costs in the scope of Subtopic 730-10 are expensed as incurred. However, the cost of acquired assets (tangible or intangible) to be used in R&D activities may be capitalized in certain circumstances. When capitalized assets are subsequently consumed or used in R&D activities, the asset or related depreciation or amortization is charged to R&D expense.

The following decision tree outlines the considerations for acquired assets to be used in R&D.

Is the asset acquired in a business combination?  
- Yes: Capitalize and subsequently account for as:
  - indefinite-lived intangible asset under Topic 350
  - other assets, as appropriate, under US GAAP
- No

Does the asset acquired have an alternative future use?  
- Yes: Capitalize and subsequently account for as appropriate under US GAAP
- No: Expense as incurred

Read more: Section 2.3

R&D funding

R&D funding arrangements are used to finance the R&D for a variety of items such as technology, new pharmaceutical products and aerospace equipment. Subtopic 730-20 provides guidance for such arrangements for both the party receiving the funding and the party providing the funding (the funding party).

The more complex analysis under this Subtopic relates to determining the accounting for the party receiving the funding. The objective of the Subtopic is to determine if the substance of the arrangement is an obligation to repay others (i.e. a borrowing) or an obligation to perform R&D for others. However, Subtopic 730-20 is not the only relevant literature and in some cases other US GAAP that requires debt classification or recognition of another financial liability (e.g. a derivative) may take precedence.
The following decision tree highlights the various ways the entity receiving funding could account for an R&D funding arrangement.

1. Executive summary

Read more: Chapter 3
2. **R&D costs**

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*New item added in this edition ***

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2.2.20 Scope exceptions

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2.1 How the standard works

R&D costs in the scope of Subtopic 730-10 are charged to expense as incurred. An entity considers both the nature of the activities and costs to determine when those costs qualify as R&D and are expensed.

Costs incurred in an R&D activity fall into one of the categories in the following table, which indicates when a cost in a category qualifies as an R&D cost and is charged to expense.

<table>
<thead>
<tr>
<th>Elements of R&amp;D cost</th>
<th>Intangible assets purchased from others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Materials, equipment and facilities</strong></td>
<td><strong>Intangible assets used in R&amp;D activities (excluding assets acquired in a business combination):</strong></td>
</tr>
<tr>
<td>Tangible assets used in R&amp;D activities (excluding assets acquired in a business combination):</td>
<td>• Expensed as incurred unless they have an alternative future use</td>
</tr>
<tr>
<td>• Cost of assets with an alternative future use consumed in R&amp;D activities and depreciation of assets used in R&amp;D activities are charged to R&amp;D expense (section 2.3.20)</td>
<td>• Amortization of intangible assets with an alternative future use is charged to R&amp;D expense (section 2.3.40)</td>
</tr>
<tr>
<td><strong>Personnel</strong></td>
<td><strong>Contract services</strong></td>
</tr>
<tr>
<td>Salaries, wages and other related costs of personnel engaged in R&amp;D activities</td>
<td>The cost of R&amp;D activities performed by others</td>
</tr>
<tr>
<td>• Expensed as incurred (section 2.3.30)</td>
<td>• Expensed as incurred (section 2.3.50)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.2 R&D activities

Excerpt from ASC 730-10

> Entities

15-2 The guidance in the Research and Development Topic applies to all entities, including the following:

a. Entities in the extractive industries whose research and development activities are comparable in nature to research and development activities of other entities, such as development or improvement of processes and techniques including those employed in exploration, drilling, and extraction.

> Transactions

15-3 The guidance in the Research and Development Topic applies to the following transactions and activities:

a. Those activities aimed at developing or significantly improving a product or service (referred to as product) or a process or technique (referred to as process) whether the product or process is intended for sale or use. A process may be a system whose output is to be sold, leased, or otherwise marketed to others. A process also may be used internally as a part of a manufacturing activity or a service activity where the service itself is marketed.

• > Examples of Activities Typically Included in Research and Development

55-1 The following activities typically would be considered research and development within the scope of this Topic (unless conducted for others under contractual arrangement—see paragraph 730-10-15-4[a]):

a. Laboratory research aimed at discovery of new knowledge
b. Searching for applications of new research findings or other knowledge
c. Conceptual formulation and design of possible product or process alternatives
d. Testing in search for or evaluation of product or process alternatives
e. Modification of the formulation or design of a product or process
f. Design, construction, and testing of preproduction prototypes and models
g. Design of tools, jigs, molds, and dies involving new technology
h. Design, construction, and operation of a pilot plant that is not of a scale economically feasible to the entity for commercial production
i. Engineering activity required to advance the design of a product to the point that it meets specific functional and economic requirements and is ready for manufacture
j. Design and development of tools used to facilitate research and development or components of a product or process that are undergoing research and development activities.
• > Examples of Activities Typically Excluded from Research and Development

55-2 The following activities typically would not be considered research and development within the scope of this Topic:

a. Engineering follow-through in an early phase of commercial production
b. Quality control during commercial production including routine testing of products
c. Trouble-shooting in connection with breaks-downs during commercial production
d. Routine, ongoing efforts to refine, enrich, or otherwise improve upon the qualities of an existing product
e. Adaptation of an existing capability to a particular requirement or customer's need as part of a continuing commercial activity
f. Seasonal or other periodic design changes to existing products
g. Routine design of tools, jigs, molds, and dies
h. Activity, including design and construction engineering, related to the construction, relocation, rearrangement, or start-up of facilities or equipment other than the following:
   1. Pilot plants (see [h] in the preceding paragraph)
   2. Facilities or equipment whose sole use is for a particular research and development project (see paragraph 730-10-25-2[a]).
i. Legal work in connection with patent applications or litigation, and the sale or licensing of patents.

2.2.10 Types of R&D activities

Subtopic 730-10 applies to all entities. An entity first determines whether any of its activities qualify as R&D activities in the scope of Subtopic 730-10. Certain activities are scoped out of the Subtopic (see section 2.2.20).

Question 2.2.10
What R&D activities are in the scope of Subtopic 730-10?

Interpretive response: R&D is defined as follows. [730-10 Glossary]

- **Research.** The planned search or critical investigation aimed at discovery of new knowledge with the hope that such knowledge will be useful in developing or significantly improving a product or process, and the translation of that research into a plan or design for a new product or process or improvements to an existing product or process.

- **Development.** The translation of research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process whether intended for sale or
use. It includes the conceptual formulation design, and testing of product alternatives, construction of prototypes, and operation of pilot plans.

This definition relates to activities to develop or significantly improve a product or service, or a process or technique, whether those items are intended for sale or use. [730-10-15-3]

Example 2.2.10 provides examples of R&D activities.

<table>
<thead>
<tr>
<th>R&amp;D activities</th>
<th>Not R&amp;D activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory research aimed at discovering new knowledge</td>
<td>Engineering follow-through in an early phase of commercial production</td>
</tr>
<tr>
<td>Search for application of new research findings or other knowledge</td>
<td>Quality control during commercial production including routine testing of products</td>
</tr>
<tr>
<td>Conceptual formulation and design of possible product or process alternatives</td>
<td>Trouble-shooting in connection with breakdowns during commercial production</td>
</tr>
<tr>
<td>Testing in search for/or evaluation of product or process alternatives</td>
<td>Routine, ongoing effort to refine, enrich or otherwise improve the qualities of an existing product</td>
</tr>
<tr>
<td>Modification of formulation or design of a product or process</td>
<td>Adaptation of an existing capability to a particular requirement or customer’s need as part of a continuing commercial activity</td>
</tr>
<tr>
<td>Design, construction and testing of preproduction prototypes and models</td>
<td>Seasonal or other periodic design changes to existing products</td>
</tr>
<tr>
<td>Design of tools, jig, molds and dies involving new technology</td>
<td>Routine design of tools, jigs, molds and dies</td>
</tr>
</tbody>
</table>
| Design, construction and operation of a pilot plant that is not of a scale economically feasible to the entity for commercial production | Activity related to construction, relocation, rearrangement or start-up of facilities or equipment other than:  
  • pilot plants  
  • facilities or equipment whose sole use is for a particular R&D development project |
| Engineering activity required to advance the design of a product to the point that it meets specific functional and economic requirements and is ready for manufacture | Legal work in connection with patents applications or litigation, and the sale or licensing of patents |
### Question 2.2.20
Are activities required to obtain regulatory approval for a new product an R&D activity?

**Interpretive response:** Generally, yes. An entity may perform activities necessary to obtain regulatory approval to commercialize a product. For example, a pharmaceutical company requires regulatory (e.g., FDA) approval to market a pharmaceutical product. The activities to develop the product and related tasks necessary to obtain regulatory approval generally meet the definition of R&D activities and, therefore, the related costs are expensed as incurred. This is the case regardless of the probability of success.

After regulatory approval is obtained, any further activities and related costs associated with the product may be more appropriately considered selling, general and administrative or cost of sales. Generally, once an entity receives regulatory approval, the R&D project is considered to be complete (see also Question 2.3.50). This is consistent with the AICPA’s IPR&D Guide, which states that the R&D project is “no longer in-process at the point when regulatory approval of the drug is obtained.” [AAG-RDA 4.34]

In some cases, post-approval activities may be similar to pre-approval activities and significant judgment is required to evaluate the nature of those post-approval costs. In general, if those activities relate to:

- a new product (e.g., an additional regulatory approval would result from the activities), they would be characterized as R&D;
- ongoing compliance or routine ongoing effort to refine the existing product, they may more appropriately be characterized as selling, general or administrative.

### Example 2.2.20
Regulatory approval of a generic pharmaceutical

Pharma Corp is in the process of creating a generic version of a drug that has been on the market for many years. Pharma has not previously manufactured this drug and its generic version is not yet approved by the FDA.

Although the technological feasibility has already been established for the generic compound, Pharma has not previously produced the compound and
Research and development

2. R&D costs

Example 2.2.30
Regulatory approval in additional territories

Pharma Corp currently has a drug compound that was approved for sale in Country X. It is currently conducting additional procedures to obtain approval from Country Y, which has a history of approving similar drugs as Country X.

The additional development activities related to gaining approval in Country Y qualify as R&D activities and the costs are expensed as incurred. Country Y’s history of approving similar drugs as Country X is irrelevant.

Question 2.2.30
Are preproduction activities related to a long-term supply arrangement an R&D activity?

Interpretive response: It depends. Preproduction activities related to long-term supply arrangements are not R&D and are accounted for under Subtopic 340-10. That Subtopic states that design and development costs for products to be sold under long-term supply agreements are expensed as incurred. It also states that design and development costs for molds, dies and other tools that a supplier will own and use in producing products under a long-term supply arrangement are capitalized as a part of those assets. [340-10-25-1]

However, Subtopic 340-10 also states that when the molds, dies and other tools involve new technology, the design and development costs are R&D and are expensed as incurred under Subtopic 730-10. [340-10-25-1]

2.2.20 Scope exceptions

Excerpt from ASC 730-10

15-4 The guidance in this Topic does not apply to the following transactions and activities:

a. Accounting for the costs of research and development activities conducted for others under a contractual arrangement, which is a part of accounting for contracts in general. Indirect costs, including indirect costs that are specifically reimbursable under the terms of a contract, are also excluded from the scope of this Topic.
b. Activities that are unique to entities in the extractive industries, such as prospecting, acquisition of mineral rights, exploration, drilling, mining, and related mineral development.

c. The acquisition, development, or improvement of a process by an entity for use in its selling or administrative activities. A process may be intended to achieve cost reductions as opposed to revenue generation. However, (e) specifically excludes market research or market testing activities from research and development activities. Those activities were excluded because they relate to the selling function of an entity. Thus, while in the broadest sense of the word, a process may be used in all of an entity's activities, the acquisition, development, or improvement of a process by an entity for use in its selling or administrative activities shall be excluded from the definition of research and development activities. To the extent, therefore, that the acquisition, development, or improvement of a process by an entity for use in its selling or administrative activities includes costs for computer software, those costs are not research and development costs. Examples of the excluded costs of software are those incurred for development by an airline of a computerized reservation system or for development of a general management information system. See Subtopic 350-40 for guidance related to costs of computer software developed or obtained for internal use and Subtopic 985-20 for computer software intended to be sold, leased or marketed.

d. Routine or periodic alterations to existing products, production lines, manufacturing processes, and other ongoing operations even though those alterations may represent improvements.

e. Market research or market testing activities.

f. Research and development assets acquired in a business combination or an acquisition by a not-for-profit entity. If tangible and intangible assets acquired in that manner are used in research and development activities, they are recognized and measured at fair value in accordance with Subtopic 805-20, regardless of whether they have an alternative future use. After recognition, tangible assets acquired in a business combination or an acquisition by a not-for-profit entity that are used in research and development activities are accounted for in accordance with their nature. After recognition, intangible assets acquired in a business combination or an acquisition by a not-for-profit entity that are used in research and development activities are accounted for in accordance with Topic 350.

15-5 The guidance in this Topic may or may not apply to the following transactions and activities:

a. Development of computer software internally for its own use. If development of computer software is undertaken for the entity's own use, the software may be intended, for example, to be used in the research and development activities of the entity or as a part of a newly developed or significantly improved product or process. See Subtopic 350-40 for guidance related to costs of computer software developed or obtained for internal use.

b. Costs incurred to purchase or lease computer software developed by others are not research and development costs under this Subtopic unless
the software is for use in research and development activities. See also paragraph 985-20-25-1.

**Question 2.2.40**

**What types of activities are excluded from the scope of Subtopic 730-10?**

**Interpretive response:** Subtopic 730-10 specifically scopes out certain transactions that relate, or are similar, to R&D. The following table summarizes those exceptions. [730-10-15-4 – 15-5]

<table>
<thead>
<tr>
<th>Scope exceptions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D conducted for others under a contractual arrangement</td>
<td>R&amp;D services in a revenue contract. When an entity is providing R&amp;D services to a customer, the costs incurred are fulfillment costs in the scope of Subtopic 340-40. However, any costs incurred before the contract exists that otherwise meet the definition of R&amp;D of the entity are in the scope of Subtopic 730-10.</td>
</tr>
<tr>
<td>Activities unique to entities in the extractive industries</td>
<td>Activities in the mining or oil and gas industry that involve prospecting, acquisition of mineral rights, exploration, drilling, mining and mineral development.</td>
</tr>
<tr>
<td>The acquisition, development or improvement of a process by an entity for use in its selling or administrative activities</td>
<td>Developing a new sales technique or other activities broadly associated with the selling or marketing function.</td>
</tr>
<tr>
<td>Routine or periodic alterations to existing products, production lines, manufacturing processes and other ongoing operations even though those alterations may represent improvements</td>
<td>• Routine, ongoing efforts to refine, enrich or otherwise improve upon the qualities of an existing product. [730-10-55-2(d)]&lt;br&gt;• Adaptation of an existing capability to a particular requirement or customer’s need as part of a continuing commercial activity. [730-10-55-2(e)]&lt;br&gt;• Seasonal or other periodic design changes to existing products. [730-10-55-2(f)]</td>
</tr>
<tr>
<td>R&amp;D assets acquired in a business combination or an acquisition by a not-for-profit entity</td>
<td>Tangible assets and IPR&amp;D acquired in a business combination to be used in R&amp;D activities. See sections 2.3.20 (tangible assets) and 2.3.40 (intangible assets).</td>
</tr>
<tr>
<td>Marketing research or testing</td>
<td>Customer surveys or studies on consumer preferences.</td>
</tr>
</tbody>
</table>
2.3 Elements of R&D cost

Excerpt from ASC 730-10

> Accounting for Research and Development Costs

25-1 Research and development costs encompassed by this Subtopic shall be charged to expense when incurred. As noted in paragraph 730-10-15-4(f), this Topic does not apply to tangible and intangible assets acquired in a business combination or in an acquisition by a not-for-profit entity that are used in research and development activities.

> Elements of Costs to Be Identified with Research and Development Activities

25-2 Elements of costs shall be identified with research and development activities as follows (see Subtopic 350-50 for guidance related to website development):

a. Materials, equipment, and facilities. The costs of materials (whether from the entity’s normal inventory or acquired specially for research and development activities) and equipment or facilities that are acquired or constructed for research and development activities and that have alternative future uses (in research and development projects or otherwise) shall be capitalized as tangible assets when acquired or constructed. The cost of such materials consumed in research and development activities and the depreciation of such equipment or facilities used in those activities are research and development costs. However, the costs of materials, equipment, or facilities that are acquired or constructed for a particular research and development project and that have no alternative future uses...
2.3.10 Overview

When an activity is an R&D activity in the scope of Subtopic 730-10, the entity identifies the costs related to that activity, which are then expensed as incurred.

[730-10-25-1]

The types of costs related to an R&D activity comprise:

- direct costs, such as the cost of personnel performing R&D, the cost of purchasing assets to be used in R&D activities and the cost of services received from a contractor; and

- indirect costs allocated to R&D activities.
These costs fall into one of the following five categories.

<table>
<thead>
<tr>
<th>Elements of R&amp;D cost</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials, equipment and facilities</td>
<td>2.3.20</td>
</tr>
<tr>
<td>Personnel</td>
<td>2.3.30</td>
</tr>
<tr>
<td>Intangible assets purchased from others</td>
<td>2.3.40</td>
</tr>
<tr>
<td>Contract services</td>
<td>2.3.50</td>
</tr>
<tr>
<td>Indirect costs</td>
<td>2.3.60</td>
</tr>
</tbody>
</table>

### 2.3.20 Materials, equipment and facilities

An entity may purchase or construct tangible assets such as materials, equipment and facilities that are used in R&D activities. For example, an entity may purchase computer testing equipment, supplies (e.g. test tubes, mixers), materials (e.g. active pharmaceutical ingredient) to be used in R&D activities or to construct a pilot plant for testing.


### Question 2.3.10

How are tangible assets to be used in R&D activities accounted for?

**Interpretive response:** It depends. The accounting for tangible assets to be used in R&D activities depends first on whether they are acquired in a business combination, or either purchased in an asset acquisition or internally constructed. The following decision tree illustrates the key steps in accounting for such tangible assets. [730-10-25-2(a), 730-10-15-4(f)]

```
Are the assets acquired in a business combination?
  Yes
  Recognize and measure at fair value under Topic 805 and subsequently account for under applicable US GAAP
  No
  Do the assets have an alternative future use?
    Yes
    Capitalize and subsequently account for under applicable US GAAP (e.g. Topic 330 or 360)
    No
    Expense as incurred
```
Business combination

Tangible assets to be used in R&D that are acquired in a business combination are recognized and measured at fair value under Subtopic 805-20.

Asset acquisition or internally constructed

If the tangible asset to be used in R&D is constructed by the entity or acquired in an asset acquisition, the costs are considered R&D and expensed as incurred unless those assets have an alternative future use. If those items have an alternative future use, they are accounted for in accordance with other US GAAP such as Topic 360 (property, plant and equipment) and/or Subtopic 805-50 (asset acquisitions). When those items are consumed or depreciated they are recorded as an R&D cost. [730-10-25-2(a)]

Question 2.3.20 discusses ‘alternative future use’ for tangible assets.

Example 2.3.10
Construction of a plant for commercial production

Pharma Corp is developing a new drug compound for which it currently does not have regulatory approval. It began construction on a plant intended to be used for commercial production of the drug compound.

Because the new plant will be used in the future commercial production of the end product, it is not an asset to be used in R&D activities. Therefore, if the plant meets the definition of an asset, Pharma accounts for the costs of constructing the plant under Topic 360 and generally capitalizes the costs.

Note: If the plant (or any other assets included in the facility) was being used solely for the purpose of R&D and had no alternative future use, its construction costs would be R&D costs and expensed as incurred.

Question 2.3.20
When do tangible assets have an alternative future use?

Background: The cost of materials, equipment and facilities to be used in R&D are expensed as incurred unless those items have an alternative future use. If the tangible asset is acquired in a business combination, it is capitalized regardless of whether it has an alternative future use (see Question 2.3.10). [730-10-25-2(a), 15-4(f)]

Interpretive response: An asset has an alternative future use when: [AAG-RDA 3.14]

- the entity reasonably expects to use the asset in an alternative manner – an alternative manner could include use in a currently identifiable R&D project
that has not commenced – and expects an economic benefit from that alternative use; and

- this alternative use is not contingent on further development of the asset – i.e. the asset can be used in the alternative manner in its condition at the acquisition date.

For tangible assets purchased from others, we believe (consistent with the AICPA’s IPR&D Guide) there is a rebuttable presumption that such assets have an alternative future use because they generally have separate economic benefit (other than scrap) independent of the R&D project’s successful completion. However, this presumption can be overcome if the entity reasonably expects (i.e. greater than 50% chance of occurring) that the asset will only be used in a specific R&D project that began before the acquisition date. [AAG-RDA 3.17]

---

**Example 2.3.20**

*Materials and equipment used in R&D*

Pharma Corp is in the process of developing a unique product. To develop that product, Pharma:

- manufactures supplies as part of its development program for use in clinical trials – the supplies can be used in multiple projects other than those currently being studied;

- purchases computer equipment to be used in testing for the R&D project – the equipment is not unique to R&D activities and has an alternative use outside of the current R&D project; and

- purchases unique testing equipment in an asset acquisition that is highly customized for the project – the nature of the customization makes it uneconomical to use the testing equipment for another R&D project.

Pharma evaluates each of the assets purchased or constructed to determine whether they have an alternative future use.

**Supplies**

Pharma capitalizes the costs of manufactured supplies and records R&D expense as the supplies are consumed. It maintains documentation supporting the alternative future uses and evaluates quarterly whether an alternative future use still exists for the supplies. If it subsequently identifies unconsumed supplies that have no alternative future use, it expenses them at that time.

**Computer equipment**

Pharma capitalizes the cost of the equipment and subsequently accounts for the asset under Topic 360. It classifies the depreciation as an R&D expense during the periods it uses the asset in R&D activities.
Testing equipment

Pharma reasonably expects that it will only use the testing equipment for the R&D project due to the significant customization, thereby overcoming the rebuttable presumption that there is an alternative use. Therefore, it expenses the cost of the equipment, less salvage value, as R&D expense as it is incurred.

2.3.30 Personnel

A workforce engaged in R&D activities could consist of scientists, engineers and other personnel; see Question 2.2.10 on what is considered an R&D activity. The costs of the workforce engaged in those activities are R&D costs.

Question 2.3.30

Are personnel costs related to R&D capitalized?

Interpretive response: No. Salaries, wages and other related costs of personnel engaged in R&D activities are R&D costs and are therefore expensed as incurred.

The personnel costs of researching or developing internally generated intangible assets are expensed as incurred even if the R&D costs are incurred after technological feasibility of the asset has been established. Unlike Subtopic 985-20 on software costs, there is no capitalization threshold based on technological feasibility for costs in the scope of Subtopic 730-20. [730-10-25-2(b)]

2.3.40 Intangible assets purchased from others

An entity may purchase intangible assets from others to be used in R&D activities. For example, an entity may license or purchase the rights to a technology or drug compound to be used in development.

An R&D project that is underway but has not yet been completed is referred to as an in-process research and development (IPR&D) project. Intangible assets to be used or that are used in R&D activities, including IPR&D projects, are referred to as IPR&D assets.
Question 2.3.40
How are purchased IPR&D assets accounted for?

Interpretive response: It depends. The accounting for purchased IPR&D assets depends on whether they are acquired in a business combination or asset acquisition. The following decision tree illustrates the key steps in accounting for these assets. [730-10-25-2(c), 730-10-15-4(f)]

Are the assets acquired in a business combination?
- Yes: Capitalize and subsequently account for as indefinite-lived intangible assets under Topic 350-30
- No: Do the assets acquired have an alternative future use?
  - Yes: Capitalize and subsequently account for as intangible assets under Topic 350
  - No: Expense as incurred

Business combination
IPR&D assets acquired in a business combination are not in the scope of Subtopic 730-10. Subtopic 805-20 requires IPR&D assets acquired in a business combination to be initially recognized and measured at fair value and accounted for as indefinite-lived intangible assets until completion or abandonment of the related R&D efforts. Those assets are tested for impairment on an annual basis in accordance with Topic 350.

See sections 7 and 22 of KPMG Handbook, Business combinations, for further discussion of IPR&D acquired in a business combination.

Asset acquisition
If the entity acquires IPR&D in an asset acquisition, the acquisition costs are allocated to the assets on a relative fair value basis. Any costs allocated to an IPR&D asset are expensed as incurred unless the asset has an alternative future use.

See further discussion in:
- Questions 2.3.50, 2.3.60 and 2.3.70 about whether an intangible asset is used in an R&D activity.
- Question 2.3.80 about alternative future use.
Chapter 4 of KPMG Handbook, Asset acquisitions, about the framework for recognizing and allocating costs to intangible assets in an asset acquisition.

Question 8.2.15 in KPMG Handbook, Statement of cash flows, about the treatment in the statement of cash flows.

**Question 2.3.50**
When is an intangible asset an IPR&D asset?

**Interpretive response:** An intangible asset is considered to be used in R&D activities (i.e. an IPR&D asset) when the acquirer will use the asset in a specifically identified R&D project that is expected to incur future R&D costs in the scope of Subtopic 730-10 (i.e. the project is incomplete). [AAG-RDA 2.08, 2.56]

To determine whether a project is incomplete, an entity evaluates the following, which would indicate the project is not complete: [AAG-RDA 2.56]

- whether it expects to incur more than a de minimis amount of future R&D costs; and
- whether there are remaining risks (e.g. technological, engineering) or certain remaining regulatory approvals at the acquisition date.

An asset related to a completed project is considered to be an asset resulting from R&D activities and therefore is not an IPR&D asset. Those assets are accounted for under the general asset acquisition guidance in Subtopic 805-50 and not Subtopic 730-10.

The following are examples of when certain projects are complete. [AAG-RDA 2.57]

<table>
<thead>
<tr>
<th>Product type</th>
<th>When complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible product not subject to governmental regulations</td>
<td>First customer acceptance (or similar demonstration of completion)</td>
</tr>
<tr>
<td>Pharmaceutical products/processes related to right to market or use that are subject to governmental regulations</td>
<td>Regulatory approval – e.g. FDA approval in the US</td>
</tr>
</tbody>
</table>

An acquired asset that is idled and not expected to be used further (i.e. incur no additional R&D costs) generally would not be used in R&D activities unless acquired to defend other IPR&D assets (see Question 2.3.70). [AAG-RDA 2.35]

**Question 2.3.60**
Is an asset related to an IPR&D project the acquirer expects to sell or out-license an IPR&D asset?

**Interpretive response:** It depends. An entity may plan to sell or out-license an IPR&D project rather than be actively involved in further development of the asset (i.e. not incur additional R&D costs).
• If the entity reasonably expects (i.e. greater than 50% likely) to sell or out-license the asset and does not plan on being actively involved in further development, the asset would not be used in R&D activities and therefore would not be an IPR&D asset.

• If the entity plans on being actively involved with the development before or during the out-licensing period, the asset still would be an IPR&D asset.

If not considered an IPR&D asset, the entity follows the general asset acquisition guidance in Subtopic 805-50 and accounts for the acquisition outside the scope of Subtopic 730-10. When not IPR&D in the scope of Subtopic 730-10, an evaluation of whether it has an alternative future use is not required to recognize an asset.

For example, if an entity acquires an intangible asset in development that it reasonably expects to sell and for which it does not plan to be actively involved in future development, it recognizes the intangible asset and evaluates whether the held-for-sale criteria in Topic 360 are met. If the held-for-sale criteria are met at the acquisition date or probable of being met within a short period of time subsequent to the acquisition date (usually three months), the acquired intangible asset is initially recognized at fair value less cost to sell. [AAG-RDA 3.30]

### Question 2.3.70

**Is a defensive intangible asset an IPR&D asset?**

**Background:** A defensive intangible asset is an intangible asset that is acquired to prevent others from obtaining access to it, thereby defending the value of the entity’s existing assets.

**Interpretive response:** It depends. If an acquired intangible asset is used to defend other intangible assets used in R&D activities, that asset is considered to be ‘used in R&D activities’ and an IPR&D asset. Therefore, it is accounted for as outlined in Question 2.3.40. In contrast, if the acquired asset is used to defend a completed product, the asset is not used in R&D activities and is not an IPR&D asset; therefore it is accounted for as a defensive intangible asset. [AAG-RDA 3.20]

### Question 2.3.80

**When does an IPR&D asset have an alternative future use?**

**Background:** The cost of an IPR&D asset acquired in an asset acquisition is expensed as incurred under Subtopic 730-10 unless it has an alternative future use. If the intangible asset is acquired in a business combination, it is R&D recognized as an indefinite-lived intangible asset and measured at fair value under Subtopic 805-20. See Question 2.3.40.
**Interpretive response:** An asset has an alternative future use when: [AAG-RDA 3.14]

- the entity reasonably expects to use it in an alternative manner – an alternative manner could include use in a currently identifiable R&D project that has not commenced – and expects an economic benefit from that alternative use; and
- this alternative use is not contingent on further development of the asset – i.e. the asset can be used in the alternative manner in its condition at the acquisition date.

Unlike a tangible asset purchased from others (see Question 2.3.20), there is no rebuttable presumption that the asset has an alternative future use. Instead, the entity must evaluate the facts and circumstances. The following are examples of situations in which there is no alternative future use. [AAG-RDA 3.18-20]

- There is no currently identifiable future project for which the asset can be used – i.e. the only identifiable projects have commenced.
- The future projects are only viable if the current project is successful.
- The asset will only be used to defend (defensive IP) other current R&D projects.

---

**Example 2.3.30**

**Alternative future use examples**

The following examples illustrate the concepts in Question 2.3.80 for when an IPR&D asset does or does not have an alternative future use.

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No alternative future use</td>
<td></td>
</tr>
<tr>
<td>License with restricted use</td>
<td>Technology company licenses technology that is contractually restricted for use only in a current R&amp;D project.</td>
</tr>
<tr>
<td>Drug compound with contingent use in other projects</td>
<td>Pharmaceutical company licenses the right to develop and market a drug compound in early stages of clinical trials for a particular disease. If the current testing is successful (e.g. toxicity study) the compound may be effective for other diseases. Given the contingency around the current testing, the compound does not have an alternative use in its current state. [AAG-RDA 3.22]</td>
</tr>
</tbody>
</table>
| Delivery mechanism for multiple products | Pharmaceutical company acquires rights to Compound A that is approved and being sold, and unapproved Compound B that is in development.  
The company also acquires the delivery mechanism technology for both compounds. The delivery mechanism technology used in Compound A will be substantially altered to be used with Compound B, which will therefore be a different asset from the Compound A mechanism.  
The use of the Compound A delivery mechanism does not constitute an alternative future use for the Compound B delivery mechanism because it is a different asset. [AAG-RDA 3.24] |
### Example

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug compound with multiple indications</td>
<td>Pharmaceutical company licenses rights to a new drug compound with multiple indications. The company plans to use the compound in three currently active R&amp;D projects. It does not plan to use the license in future projects. The currently active projects are not an alternative use because they have all commenced. [AAG-RDA 3.25]</td>
</tr>
<tr>
<td>IPR&amp;D with contingent alternative use</td>
<td>Technology company acquires IPR&amp;D that could be used in two projects (Project X and Y). Project Y has not yet commenced and is an advanced version of Project X that depends on the successful completion of Project X. Project Y is not an alternative future use because it is contingent on the success of Project X. [AAG-RDA 3.21]</td>
</tr>
</tbody>
</table>

### Alternative future use

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology used in current and future projects</td>
<td>Pharmaceutical company licenses rights to completed technology that can be used in its current state for the testing and screening of potential drug candidates. It reasonably expects to use the technology in both current and future R&amp;D projects. [AAG-RDA 3.26]</td>
</tr>
<tr>
<td>Library of molecules</td>
<td>Pharmaceutical company licenses rights to a library of molecules that can be used for screening of drug candidates in both current and future R&amp;D projects. There are no contingencies and the company reasonably expects to use the library in currently identified future projects. [AAG-RDA 3.29]</td>
</tr>
</tbody>
</table>

### 2.3.50 Contract services

Entities often outsource R&D activities to third parties or hire contractors to assist in R&D activities. The cost of the activities performed by others is an R&D cost and expensed as incurred. [730-10-25-2(d)]

### Question 2.3.90

**How are fees for contract services recognized?**

**Interpretive response:** The cost of services performed by others in connection with R&D projects (including R&D conducted by others on behalf of the entity) is expensed as incurred. [730-10-25-2(d)]

An entity recognizes the expense as the services are performed and not just based on the billing schedule. As a result, an entity may have to estimate the amount of expense incurred under the contract based on the work to date.

For services related to a pharmaceutical company’s clinical trial, this would mean estimating services provided at each clinical site to each patient in the trial. Delays in reporting from clinical sites can present a challenge in obtaining such information at each period end. As another example, if an entity pays the
service provider a fixed fee upon completion of the project, the entity would accrue the cost in proportion to the amount of services completed.

Success-based fees are accrued and recognized in proportion to the services performed assuming the event is probable of occurring, unless those fees are required to be accounted for under other US GAAP (e.g. Topic 815 on derivatives and hedging).

### 2.3.60 Indirect costs

R&D costs include indirect costs that are clearly related to the R&D activities. An entity must adopt a methodology for reasonably allocating indirect costs to R&D activities. [730-10-25-2(e)]

### 2.4 Computer software

[Excerpt from ASC 730-10]

> Computer Software

**25-3** When software for use in research and development activities is purchased or leased, its cost shall be accounted for as specified by (c) in the preceding paragraph and paragraph 730-10-25-1. That is, the cost shall be charged to expense as incurred unless the software has alternative future uses (in research and development or otherwise).

**25-4** Development of software to be used in research and development activities includes costs incurred by an entity in developing computer software internally for use in its research and development activities, are research and development costs and, therefore, shall be charged to expense when incurred. The alternative future use test does not apply to the internal development of computer software; paragraph 730-10-25-2(c) applies only to intangibles purchased from others. This includes costs incurred during all phases of software development because all of those costs are incurred in a research and development activity.

[Question 2.4.10]

**How are costs of software to be used in R&D accounted for?**

**Background:** As discussed in Question 2.2.40, software development costs are generally accounted for under either Subtopic 350-40 (internal-use software) or Subtopic 985-20 (software to be sold, leased or otherwise marketed). However,
costs of software to be used in R&D activities are in the scope of Subtopic 730-10.

**Interpretive response:** Purchased software to be used in R&D activities is accounted for like the purchase of any other intangible asset to be used in R&D activities (see section 2.3.40). That is, the cost is expensed unless the software has an alternative future use. [730-10-25-3]

Internal costs incurred by the entity to develop software for use in R&D are expensed as incurred. This includes costs for a (1) pilot project or (2) for use in a particular R&D project. The entity need not determine if such software has an alternative future use. [730-10-25-4]

### 2.5 Disclosure

**Excerpt from ASC 730-10**

50-1 Disclosure shall be made in the financial statements of the total research and development costs charged to expense in each period for which an income statement is presented. Such disclosure shall include research and development costs incurred for a computer software product to be sold, leased, or otherwise marketed.

**Question 2.5.10**

What disclosures are required for R&D costs?

**Interpretive response:** Entities are required to disclose total R&D costs for each period an income statement is presented. Entities should also consider whether disclosure is required under critical accounting policies. [350-30-50-1]

**Question 2.5.15**

Are SEC registrants required to include R&D specific disclosures within MD&A?

**Interpretive response:** Yes. In accordance with Item 303(b) of Regulation S-K, SEC registrants are required to include disclosures within MD&A related to significant changes in results of operations, which includes R&D expenses.

The SEC expects registrants to disaggregate these disclosures. Examples of the type of disaggregation commonly requested in SEC comment letters to
registrants includes by product/program, internal versus external spend, or nature of the expenses.

**Question 2.5.20**

What disclosures are required for asset acquisitions of IPR&D?

**Interpretive response:** Entities are required to disclose the amount of IPR&D assets acquired in an asset acquisition and written off in the period, and the line item in the income statement in which the amounts written off are presented.

[350-30-50-1(c)]

IPR&D that has an alternative future use is subject to the general intangible asset disclosure requirements in Subtopic 350-30. [350-30-50]

### 2.6 Other considerations

**Question 2.6.10**

How is contingent consideration for IPR&D in an asset acquisition accounted for?

**Interpretive response:** It depends. An entity must first evaluate the payments under other US GAAP such as Topic 815 (derivatives and hedging) or Topic 718 (share-based payments). If the contingent payments are not in the scope of other US GAAP, the entity generally accounts for the consideration under Topic 450 (contingencies).

Any contingent payments liability (or in some cases an asset) recognized at the acquisition date is included in the acquisition cost and allocated to the acquired assets; this includes IPR&D for which the amounts are expensed unless there is an alternative future use. Subsequent to the acquisition date, any changes to the amounts recognized are adjustments to the acquisition cost and allocated to acquired assets consistent with the initial allocation unless specific US GAAP requires another treatment – e.g. Topic 815 requires subsequent changes to be recorded in earnings.

If the additional cost is incurred after the IPR&D project is completed, we believe it is appropriate to capitalize the additional amounts allocated to IPR&D, assuming the intangible otherwise meets the definition of an asset. In contrast, if the additional cost is incurred before the R&D project is complete, the additional cost is expensed as incurred, unless the asset has an alternative future use.

KPMG Handbook, *Asset acquisitions*, includes additional guidance on contingent consideration in an asset acquisition, in particular:
• section 3.5 on the initial accounting for contingent consideration;
• when there is a bargain purchase:
  • Question 4.6.30
  • Example 4.6.10
  • Example 4.6.15

• subsequent accounting for contingent consideration:
  • Question 4.8.10
  • Question 4.8.20
  • Example 4.8.10.

Question 2.6.20
How is the purchase of FDA priority review vouchers accounted for?

**Background:** Priority review vouchers (PRVs) are awarded by the FDA for treatments for certain tropical diseases or rare pediatric diseases. An entity can use a PRV to expedite the FDA review process for a drug candidate. PRVs once awarded can be sold freely between companies and do not expire.

When an entity intends to use a PRV, it notifies the FDA of its intent to submit a new drug application (NDA) with a PRV at least 90 days before submission. Upon submission, the entity is obligated to pay an irrevocable priority review fee. If the entity decides not to use the PRV in its application, the entity retains the PRV but is not refunded the priority review fee.

**Interpretive response:** It depends. In our experience, entities generally capitalize the cost of PRVs until they commit to use them for a particular project; this is because the PRV has an alternative future use through a future sale or use in future projects that have not commenced. In those cases, an entity may reasonably expect to use the PRV in one of those alternative manners because of the uncertainty about whether a commenced project will fail before being submitted for FDA approval.

In contrast, at the acquisition date some entities intend, and are committed, to use the PRV in a current project that will be submitted to the FDA in the near future; therefore, there is less uncertainty about how the PRV will be used. In those cases, the PRV would be expensed when purchased. Generally, we believe an entity is considered to be committed no later than when it notifies the FDA of its intent to use the PRV in an NDA submission.
Question 2.6.30
Are legal costs incurred to defend a patent capitalized?

Interpretive response: Legal fees incurred for patent applications or litigation are not R&D costs. [730-10-55-2]

Patent defense costs may be capitalized when a successful defense of the patent is likely and there is evidence that the defense increases the value of the patent. However, in our experience entities generally expense these costs as incurred because of the difficulty in assessing the outcome of the litigation and evidencing the increase in fair value. [TQA 2260.03]

In our experience, patent application costs are also generally expensed as incurred due to the uncertainty and development risks in the IP.
3. R&D funding arrangements

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**Examples**

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3.5 **Funding party**

**Question**

3.5.10 How does the funding party account for an R&D funding arrangement?

**Example**

3.5.10 Refundable advance payment for inventory under development by the supplier

3.6 **Issuance of warrants or similar instruments**

**Question**

3.6.10 How is R&D funding accounted for when equity or debt instruments are issued to the same counterparty?

3.7 **Certain nonrefundable advance payments**

**Question**

3.7.10 How does a funding party account for a nonrefundable advance payment made pursuant to an executory contract for future R&D activities?

**Example**

3.7.10 Nonrefundable advance payment for R&D services
3.8 Disclosure

Question

3.8.10 What disclosures are required for R&D funding arrangements?
3.1 How the standard works

R&D funding arrangements are used to finance the R&D for a variety of items such as technology, new pharmaceutical products and aerospace equipment. Subtopic 730-20 provides guidance for such arrangements for both the party receiving the funding and the party providing the funding (the funding party).

The more involved analysis under this Subtopic relates to the accounting for the party receiving the funding. The objective of the Subtopic is to determine if the substance of the arrangement is an obligation to repay others (i.e. a borrowing) or an obligation to perform R&D for others.

However, Subtopic 730-20 is not the only relevant literature and in some cases other US GAAP that requires debt classification or recognition of another financial liability (e.g. a derivative) may take precedence. An entity must carefully consider the substance of the arrangement to determine the appropriate accounting, particularly when concluding that the arrangement is not debt or another financial liability.

The following decision tree highlights the various ways the entity receiving funding could account for an R&D funding arrangement.
3.2 Overview

Excerpt from ASC 730-20

05-1 This Subtopic provides guidance on research and development arrangements. Research and development arrangements have been used to finance the research and development of a variety of new products, such as information processing systems, medical technology, experimental drugs, electronic devices, and aerospace equipment. Entities may enter into arrangements for any of the following reasons:

a. To transfer all or part of the uncertainty and risk involved with the research and development to others
b. To obtain the benefit of funds that are made available because of tax incentives for investors
c. To attract qualified research and development personnel who otherwise might be concerned that funding might not be assured
d. To avoid expanding the ownership of the entity and the impact on earnings per share (EPS) that would result from issuing equity securities
e. To avoid debt service expenditures and the impact on the entity’s debt-to-equity ratio that would result from issuing debt securities
f. To avoid the impact on the entity’s near-term earnings that would result if it incurred the related research and development expenses

05-2 Many arrangements are formed as limited partnerships. In some, the entity or a related party is the general partner who manages the research and development activities. Sometimes, the limited partners are related to the entity. In some arrangements, the entity has the basic technology needed for the research and development and has performed preliminary research and development work to determine the attractiveness of further work. The entity might contribute the preliminary research and development work and basic technology to the partnership for a minor equity interest or might license or give the rights to the preliminary work and basic technology to the partnership.

05-3 The terms of the arrangement usually contemplate, but do not guarantee, that the funds provided by the limited partners will be sufficient to complete the intended research and development. However, some agreements permit or require the general partner to sell additional limited-partnership interests or to use its own funds if the funds provided are insufficient to complete the research and development effort. The entity sometimes provides additional funds through loans or advances to the partnership. Repayment of the loans or advances sometimes is guaranteed by the partnership although repayment sometimes is contingent on realization of future economic benefits of the research and development; for example, repayment might be made through offsets against the purchase price for the results of the project or against royalty payments.

05-4 The entity or a related party of the entity usually performs the research and development work under a contract with the partnership. The compensation under the research and development contract usually is either a
fixed fee or reimbursement of direct costs plus a fixed fee or fixed percentage of those costs. The work is performed on a best-efforts basis with no guarantee of either technological or commercial success. The partnership retains legal ownership of the results of the research and development and sometimes retains legal rights to the basic technology provided by the entity.

05-5 Either as part of the partnership agreement or through contracts with the partnership, the entity usually has an option either to purchase the partnership's interest in or to obtain the exclusive rights to the entire results of the research and development in return for a lump sum payment or royalty payments to the partnership. Some arrangements contain a provision that permits the entity to acquire complete ownership of the results for a specified amount of the entity's stock or cash at some future time. In some of those purchase agreements, the partnership has the option to receive either the entity's stock or cash; in others, the entity makes the decision. Sometimes, warrants or similar instruments to purchase the entity's stock are issued in connection with the arrangement.

05-6 An entity that is a party to an arrangement through which research and development is funded by other parties usually incurs an obligation when it enters into the arrangement. The nature and extent of the entity's obligation are sometimes difficult to determine and can range from an obligation to perform contract research and development work to an obligation to repay the other parties, with a return, for the funds provided.

05-7 If the results of the research and development are determined to have sufficient future economic benefit, the entity probably will exercise its option either to purchase the partnership's interests in or to obtain the exclusive rights to the entire results. If the results do not have future economic benefit, the entity usually is not legally required to exercise its option; however, there may be valid business reasons for the entity to acquire the results even though the original objectives of the research and development are not met. For example, the entity may want to obtain ownership of results that have value to the entity even though they do not meet the original objectives.

05-8 Other reasons to acquire the results of research and development may be:

a. To maintain the ability to enter into another arrangement with the same parties or similar arrangements with other parties
b. To recover the ownership of or rights to the entity's basic technology or to prevent the partnership from providing that technology to others
c. To avoid any potential future claim against the use of the results
d. To fulfill a moral obligation (for example, the entity is the general partner and due to a conflict of interest feels compelled to exercise its option).

05-9 Although the entity's legal liabilities will be specified in the various contracts and agreements under the arrangement, accounting representations should not necessarily be limited to legal requirements. Depending on the facts and circumstances involved in a particular research and development arrangement, future payments by the entity to the other parties ostensibly for royalties or to purchase the partnership's interests in or to obtain the exclusive rights to the research and development results might actually be any of the following:
R&D funding arrangements can take many forms. Typically, the entity with the R&D project (i.e., the party receiving funding) will retain rights to the IP and the funding party will provide consideration to partially or wholly fund a project, with the arrangement contemplating but not guaranteeing that the funds will be repaid. In other arrangements, the entity may contribute the R&D project to a newly formed legal entity and have the right to repurchase the results of the R&D in return for a lump sum payment or royalty payments.

**Question 3.2.10**
What is an R&D funding arrangement?

**Interpretive response:** An entity is a party to an R&D funding arrangement if the contract has the following characteristics: [730-20-15-2]

- the activities performed under the arrangement meet the definition of R&D and are in the scope of Subtopic 730-10 (see section 2.2);
- the entity can obtain the results of the R&D; and
- the R&D is funded partially or entirely by others.

Subtopic 730-20 may apply whether the R&D is performed by the entity, the funding parties or others. See **Question 3.2.20** if the R&D is performed in a separate legal entity. [730-20-15-3]

Because Subtopic 730-20 applies to arrangements in which a party can obtain the results of R&D, it may apply to contracts that have characteristics of sales or revenue contracts when the entity receiving the funds either does not transfer the IP, transfers a nonexclusive license (i.e., retains the right to the results of the R&D to license to others) or it transfers the IP but has the option or obligation to obtain the results in the future.
However, before an entity accounts for these arrangements under other GAAP, it must evaluate the substance of the arrangement under Subtopic 730-20 to determine if the arrangement should be accounted for as debt (i.e. an obligation to repay) or an obligation to perform R&D for others. See section 3.4.

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**Example 3.2.10**

**Not an R&D funding arrangement**

ABC Corp enters into an arrangement to customize Customer’s software based on certain customer-specific functionality requirements. The customized software developed by ABC under this arrangement is the property of Customer, and ABC does not have any rights to obtain the software that is developed as part of this engagement.

ABC does not have the right to acquire the results of the software development arrangement funded by others, and therefore the arrangement is not in the scope of Subtopic 730-20. ABC accounts for the arrangement under Topic 606 as a contract to perform software development services.

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**Question 3.2.20**

**How is an R&D funding arrangement conducted through a newly formed legal entity accounted for?**

**Background:** Some R&D funding arrangements are conducted through a newly formed legal entity (R&D vehicle). In some cases, the R&D vehicle may be funded by a third-party investor, another commercial entity or both.

**Interpretive response:** When an R&D funding arrangement is conducted through a newly formed legal entity, the reporting entity first determines whether to consolidate the R&D vehicle.

- In many cases, the R&D vehicle is a variable interest entity (VIE) that is evaluated for consolidation under the Subtopic 810-10 VIE model.
- In other cases, an R&D vehicle that is not a VIE may be in the scope of Subtopic 810-30 (consolidation of R&D arrangements) depending on the relationship between the parties; see Question 2.5.90 in KPMG Handbook, Consolidation.
- If neither the VIE model nor Subtopic 810-30 apply, the Subtopic 810-10 voting interest model is applied.

If the reporting entity consolidates the R&D vehicle, it accounts for the activities of the R&D vehicle in its consolidated financial statements. If the R&D vehicle is not consolidated, the reporting entity then evaluates the R&D funding arrangement under other applicable US GAAP, which could include Subtopic 730-20 (see section 3.3).
3.3 Scope

Excerpt from ASC 730-20

> Overall Guidance

15-1 This Subtopic follows the same Scope and Scope Exceptions as outlined in the Overall Subtopic, see Section 730-10-15, with specific qualifications and exceptions noted below.

15-1A This Subtopic also applies to software-development arrangements that are fully or partially funded by a party other than the vendor that is developing the software and for which technological feasibility of the computer software product in accordance with the provisions of Subtopic 985-20 on software has not been established before entering into the arrangement. Those arrangements typically provide the funding party with some or all of the following benefits:

a. Royalties payable to the funding party based solely on future sales of the product by the software vendor (that is, reverse royalties)
b. Discounts on future purchases by the funding party of products produced under the arrangement
c. A nonexclusive sublicense to the funding party, at no additional charge, for the use of any product developed (a prepaid or paid-up nonexclusive sublicense).

> Entities

15-2 This Subtopic establishes standards of financial accounting and reporting for an entity that is a party to a research and development arrangement through which it can obtain the results of research and development funded partially or entirely by others.

15-3 The guidance in this Subtopic applies whether the research and development is performed by the entity, the funding parties, or a third party. Although the limited-partnership form of arrangement is used for illustrative purposes in this Subtopic, the guidance also applies for other forms.

> Transactions

15-4 The guidance in this Subtopic does not apply to the following transactions and activities:

a. Government-sponsored research and development.
b. Funded software-development arrangements in which the technological feasibility of the computer software product, in accordance with the
provisions of Subtopic 985-20 on software, has been established before the arrangement has been entered into (see paragraph 985-20-25-12).

Subtopic 730-20 has the same general scope and scope exceptions as Subtopic 730-10 (see section 2.2). In addition, Subtopic 730-20 has incremental explicit scope requirements. However, even when those scope requirements are met, the entity receiving funding has to determine whether to account for its R&D funding arrangement under the recognition guidance in Subtopic 730-20 or under other US GAAP. This analysis is required only if the R&D activity is not conducted in an R&D vehicle that the entity consolidates (see Question 3.2.20).

Question 3.3.10
What guidance applies to an R&D funding arrangement?

Interpretive response: If an entity has an R&D funding arrangement, it follows the analysis in the following decision tree to determine whether it accounts for the arrangement under Subtopic 730-20 or another (Sub)Topic. In contrast, if the arrangement is not an R&D funding arrangement, the entity looks to other US GAAP not specified in this Handbook.
Question 3.3.20
When is an R&D funding arrangement accounted for as a derivative?

Background: R&D funding arrangements are not explicitly scoped out of Topic 815 (derivatives and hedging) and they often have characteristics similar to derivatives. Therefore, before an entity accounts for an R&D funding arrangement under Subtopic 730-20, it considers whether the derivative guidance in Topic 815 applies to the entire arrangement.

Interpretive response: An entity accounts for an R&D funding arrangement as a derivative when the arrangement in its entirety meets the definition of a derivative and does not meet a scope exception to Topic 815.

In some cases, the arrangement meets the definition of a derivative because it:

- has an underlying (e.g. requires payments based on net sales) or a payment provision (e.g. payment upon meeting a regulatory approval);
- requires no initial net investment; and
- is net settled (e.g. the arrangement is explicitly settled in cash).

If the arrangement meets the definition of a derivative, the entity then evaluates whether any scope exceptions in Topic 815 apply. In our experience, the scope exceptions that most commonly apply to R&D funding arrangements are for contracts (1) that are not exchange traded and (2) with an underlying on which the settlement is based on a:

- specified volume of sales or services revenues of one of the parties to the contract (e.g. royalty agreements); see section 2.7.40 in KPMG Handbook, Derivatives and hedging, for guidance on evaluating this scope exception; and/or
- unique, nonfinancial asset related to the underlying that is owned by the party that would not benefit under the contract from an increase in the fair value of the nonfinancial asset. See section 2.7.30 in KPMG Handbook, Derivatives and hedging, for further guidance on evaluating this scope exception.

If the arrangement in its entirety is in the scope of Topic 815, the entity receiving the funding initially measures its obligation to repay the funding party at fair value and remeasures the obligation at fair value each period with any changes recorded in earnings. We understand the SEC staff has taken the view that certain R&D funding arrangements should be accounted for as a derivative when the repayment is based on a multiple of R&D costs incurred. It is important to consider the facts and circumstances of each arrangement and apply professional judgment to evaluate the Topic 815 scope exceptions.

If the arrangement in its entirety is not in the scope of Topic 815, the entity may still need to recognize a liability if the arrangement is in the scope of Subtopic 470-10 on sales of future revenue (see Question 3.3.50) or based on the guidance in Subtopic 730-20 (see Question 3.4.10). Further, the entity must
evaluate whether the arrangement contains an embedded derivative in the scope of Topic 815 that requires separate accounting.

Question 3.3.30
Are government sponsored R&D funding arrangements in the scope of Subtopic 730-20?

Interpretive response: Government sponsored R&D arrangements are explicitly scoped out of Subtopic 730-20. We believe this scope exception generally applies to arrangements with the government such as government grants or best efforts R&D arrangements with the US federal government. [730-20-15-4(a)]

Best efforts R&D arrangements with the US federal government are evaluated under Subtopic 912-730. Subtopic 912-730 applies to contractual arrangements that meet all of the following conditions: [912-730-15-2(a)-(f)]

- activities performed in connection with the contractual arrangement qualify as R&D;
- the contractor (the entity) retains a right to the data and results of the R&D activities;
- the contract obligates the contractor to perform only on a best-efforts basis rather than deliver a product or service meeting defined performance or other specifications;
- at contract inception, the contractor and customer expect that costs will be incurred in excess of amounts to be funded. This condition will be met if contractual or other documentation specifically evidences acknowledgment of this expectation by both the contractor and the customer. Implicit in this condition is the existence of significant uncertainty at the date the contractor enters into the arrangement regarding the likelihood of successfully securing follow-on contracts related to the research and development activity;
- the R&D is not combined with other revenue contracts; and
- the federal government is the sole or principal expected ultimate customer of the R&D activity or products directly resulting from the R&D activity.

If all of the above criteria are met, the amounts funded by the US Federal government are recognized as an offset to the contractor’s R&D expense instead of as revenue.

If the criteria are not met or the government customer is not the US federal government, the contractor (entity receiving the funding) evaluates the nature of the arrangement to determine the appropriate accounting. For example, the entity should consider whether the contract is with a customer and in the scope of Topic 606, a government grant or whether other US GAAP applies. [912-730-15-3, 25-1]
If the entity’s arrangement with a government has characteristics of an R&D funding arrangement (i.e. the government can earn a return similar to an investor), we believe entities should evaluate the arrangement under Subtopic 730-20 to evaluate the substance of the arrangement (e.g. whether the arrangement represents an obligation to repay the government or provide it contractual R&D services).

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**Question 3.3.40**

Are funded software development arrangements in the scope of Subtopic 730-20?

**Interpretive response:** It depends on whether technological feasibility of the software has been achieved. See section 5.2 in KPMG Handbook, *Software and website costs*, for guidance on evaluating technological feasibility. [730-20-15-1A, 730-20-15-3(b)]

When technological feasibility has been achieved, Subtopic 985-20 (costs of software to be sold, leased or marketed) indicates the accounting is based on whether the transaction is with a customer. [985-20-25-12]

- If not with a customer, the entity accounts for payments received first as a reduction of capitalized development costs. If the consideration received exceeds the amount of capitalized costs, the excess is credited against future amounts that subsequently qualify for capitalization. Any deferred amount recognized after the project is complete is credited to income.
- If the arrangement is with a customer, the entity applies Topic 606.

When technological feasibility has not been achieved, the software development arrangement is in the scope of Subtopic 730-20 and accounted for similar to any other R&D funding arrangement. See Question A30 in KPMG Handbook, *Revenue: Software and SaaS*, for specific guidance on software arrangements.

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**Example 3.3.10**

Funded software development arrangement

ABC Corp enters into an arrangement to develop a new networking software application for Customer. The software developed by ABC under this arrangement is the property of ABC and can be marketed to future customers. The arrangement is an R&D funding arrangement because ABC obtains the results of the R&D funded by others (see Question 3.2.10).

**Scenario 1: Technological feasibility is not established**

Technological feasibility of the software has not been established at contract inception. Therefore, ABC evaluates the arrangement under Subtopic 730-20.
Scenario 2: Technological feasibility is established

Technological feasibility of the software has been established at contract inception. Therefore, ABC accounts for the arrangement under the guidance in Subtopic 985-20 (see Question 3.3.40).

Question 3.3.50

When is an R&D funding arrangement in the scope of the sales of future revenue guidance?

Background: R&D funding arrangements are not explicitly scoped out of Subtopic 470-10 on sales of future revenue, and judgment is required to determine if the arrangement should be accounted for in the scope of Subtopic 470-10 or Subtopic 730-20. A sale of future revenue typically occurs when an entity receives an upfront cash payment from a third party (the investor) in return for the entity paying the investor a specified percentage or amount of the entity’s revenue or other measure of income for a defined period. R&D funding arrangements are similar in that the entity receives funding (often from an investor) and then may be obligated to make payments based on future revenues. [470-10-25-2]

Before an entity accounts for an R&D funding arrangement under Subtopic 730-20, it must consider whether the transaction is in the scope of the sale of future revenue guidance in Subtopic 470-10 rather than Subtopic 730-20. See decision tree in Question 3.3.10.

Interpretive response: We believe an entity receiving funding should generally apply Subtopic 470-10 rather than Subtopic 730-20 when at contract inception successful completion of the R&D project and future sales are probable. If probable at contract inception, in substance the arrangement is not an R&D funding arrangement but the sale of a future revenue stream.

In the pharmaceutical industry, this evaluation typically involves assessing the probability of technical and regulatory success (PTRS) at inception. It also requires a careful evaluation of the terms of the arrangement to understand whether provisions that limit the funding party’s risk indicate success is probable at contract inception. The factors in Question 3.4.40 should be evaluated in making this determination.

In our experience, an arrangement of this type that is in the scope of Subtopic 470-10 is required to be accounted for as debt. If any of the factors exist, it is difficult to overcome the presumption that the arrangement is debt. While all of the factors in paragraph 470-10-25-2 need to be considered (and may be applicable in these arrangements) the entity’s continuing involvement in the generation of sales often results in debt classification. [470-10-25-2(b)]

See section 3.7.30 in KPMG Handbook, Debt and equity financing, for a discussion on evaluating the sales of future revenue guidance.
Example 3.3.20
Scope of sales of future revenue in Subtopic 470-10 vs R&D funding in the scope of Subtopic 730-20

Biotech Corp receives funding from Investor for a single drug candidate in development. If the drug is approved, Biotech will pay Investor a royalty from all future commercial sales. Biotech concludes that the arrangement is not in the scope of Topic 815 because it meets the scope exception for a contract that is not exchange traded and the underlying is based on sales (see Question 3.3.20).

Biotech evaluates whether the arrangement is in the scope of the sales of future revenue guidance under Subtopic 470-10 or the R&D funding guidance under Subtopic 730-20.

Scenario 1: Sale of future revenue in scope of Subtopic 470-10

The drug candidate is in Phase 3 of clinical trials and Biotech estimates it has a PTRS of 85%, which is consistent with outcomes in the same therapeutic area in this stage of development. Biotech therefore concludes that approval is probable. Further, it determines there is a viable market for commercial sales such that they will begin shortly after FDA approval.

Biotech concludes the arrangement is in the scope of the sale of future revenue guidance in Subtopic 470-10. It further concludes the funding is debt under that guidance because Biotech meets the factor for having continuing involvement with its involvement generating the commercial sales of the drug. [470-10-25-2(b)]

Note: As noted in Question 3.3.50, the factor of continuing involvement is not the only factor to consider that may require debt classification.

Scenario 2: R&D funding in scope of Subtopic 730-20

The drug candidate is starting Phase 2 of clinical trials and Biotech estimates it has a PTRS of 55%, which is consistent with outcomes in the same therapeutic area in this stage of development. Biotech therefore concludes that FDA approval is not probable at this time.

As a result, Biotech concludes that the arrangement is not a sale of future revenue and it needs to evaluate the arrangement under Subtopic 730-20 (see section 3.4).
3.4 Entities receiving funding

3.4.10 Overview

Excerpt from ASC 730-20

25-1 This Subtopic deals with transactions in which the issue is whether, at the time an entity enters into a research and development arrangement:

a. The entity is committed to repay any of the funds provided by the other parties regardless of the outcome of the research and development.
b. Existing conditions indicate that it is likely that the entity will repay the other parties regardless of the outcome.
c. The entity is obligated only to perform research and development work for others.

25-2 An entity shall determine the nature of the obligation it incurs when it enters into an arrangement with other parties who fund its research and development. The factors discussed in paragraphs 730-20-25-3 through 25-9 and other factors that may be present and relevant to a particular arrangement shall be considered when determining the nature of the entity's obligation.

If no other US GAAP applies to an R&D funding arrangement (see section 3.3), then an entity receiving funding evaluates the arrangement under Subtopic 730-20.

Question 3.4.10

How does an entity receiving funding evaluate an R&D funding arrangement under Subtopic 730-20?

Interpretive response: An entity receiving funding in an R&D funding arrangement accounts for the arrangement as either an obligation to repay others (i.e. a borrowing) or an obligation to perform R&D activities for others.

[730-20-25-3, 25-8]

The following decision tree indicates the key issue in this evaluation.

Has there been a substantive and genuine transfer of financial risk associated with R&D to the funding party? (Section 3.4.20)

- No
  - Obligation to repay others (i.e. a borrowing) (Question 3.4.70)
- Yes
  - Obligation to perform contractual services (Section 3.4.30)
3.4.20  Obligation to repay others

Excerpt from ASC 730-20

> Obligation to Repay the Other Parties

25-3 If the entity is obligated to repay any of the funds provided by the other parties regardless of the outcome of the research and development, the entity shall estimate and recognize that liability. This requirement applies whether the entity may settle the liability by paying cash, by issuing securities, or by some other means.

25-4 To conclude that a liability does not exist, the transfer of the financial risk involved with research and development from the entity to the other parties must be substantive and genuine. To the extent that the entity is committed to repay any of the funds provided by the other parties regardless of the outcome of the research and development, all or part of the risk has not been transferred. The following are some examples in which the entity is committed to repay:

a. The entity guarantees, or has a contractual commitment that assures, repayment of the funds provided by the other parties regardless of the outcome of the research and development.
b. The other parties can require the entity to purchase their interest in the research and development regardless of the outcome.
c. The other parties automatically will receive debt or equity securities of the entity upon termination or completion of the research and development regardless of the outcome.

25-5 Even though the written agreements or contracts under the arrangement do not require the entity to repay any of the funds provided by the other parties, surrounding conditions might indicate that the entity is likely to bear the risk of failure of the research and development. If those conditions suggest that it is probable that the entity will repay any of the funds regardless of the outcome of the research and development, there is a presumption that the entity has an obligation to repay the other parties. That presumption can be overcome only by substantial evidence to the contrary. In this context, probable means that repayment is likely.

25-6 Examples of conditions leading to the presumption that the entity will repay the other parties include any of the following:

a. The entity has indicated an intent to repay all or a portion of the funds provided regardless of the outcome of the research and development.
b. The entity would suffer a severe economic penalty if it failed to repay any of the funds provided to it regardless of the outcome of the research and development. An economic penalty is considered severe if in the normal course of business an entity would probably choose to pay the other parties rather than incur the penalty. For example, an entity might purchase the partnership's interest in the research and development if the entity had provided the partnership with proprietary basic technology necessary for
the entity's ongoing operations without retaining a way to recover that technology, or prevent it from being transferred to another party, except by purchasing the partnership's interest.

c. A significant related party relationship between the entity and the parties funding the research and development exists at the time the entity enters into the arrangement.

d. The entity has essentially completed the project before entering into the arrangement.

25-7 An entity that incurs a liability to repay the other parties shall charge the research and development costs to expense as incurred. The amount of funds provided by the other parties might exceed the entity's liability. That might be the case, for example, if license agreements or partial buy-out provisions permit the entity to use the results of the research and development or to reacquire certain basic technology or other assets for an amount that is less than the funds provided. Those agreements or provisions might limit the extent to which the entity is economically compelled to buy out the other parties regardless of the outcome. In those situations, the liability to repay the other parties might be limited to a specified price for licensing the results or for purchasing a partial interest in the results. If the entity's liability is less than the funds provided, the entity shall charge its portion of the research and development costs to expense in the same manner as the liability is incurred. For example, the liability might arise as the initial funds are expended, or the liability might arise on a pro rata basis.

An entity receiving funding accounts for the funds received as an obligation to repay others (i.e. a borrowing) unless there has been a substantive and genuine transfer of the R&D’s financial risk to the funding party. [730-20-25-3 – 25-4]

See Question 3.4.70 on how an entity accounts for arrangements that give rise to a liability. See section 3.4.30 for arrangements in which the transfer of financial risk is substantive and genuine.

**Question 3.4.20**

How does an entity evaluate whether there has been a substantive and genuine transfer of financial risk?

**Interpretive response:** A substantive and genuine transfer of the financial risk related to R&D has not occurred when the entity receiving funding is obligated or committed to repay the funding party regardless of the results of R&D. In those cases, the entity receiving the funding still bears the risk of R&D failure.

In contrast, when repayment depends solely on the R&D results having a future economic benefit, the entity receiving funding generally does not bear the risk of R&D failure. We believe a repayment solely depends on the R&D results having a future economic benefit when it occurs as a result of the R&D project being successfully completed and the results are available for commercial use. [730-20-25-4 – 25-5, 25-8]
A substantive and genuine transfer of risk has not occurred when the entity receiving funding has either: [730-20-25-4 – 25-6]

- committed to repay the funds it received regardless of the outcome of the R&D (see Question 3.4.30); or
- conditions indicate it is probable (i.e. likely) that the entity will repay the funding regardless of the outcome of the R&D even if not contractually obligated to do so (see Question 3.4.40).

Question 3.4.30
When is an entity committed to repay R&D funding?

Interpretive response: An entity receiving funding incurs an obligation to repay others (i.e. a borrowing) when the transfer of financial risk associated with the R&D is not substantive and genuine (see Question 3.4.20). When the entity receiving the funding is committed to repay the funds regardless of the outcome of R&D, all or part of the risk has not been transferred. [730-20-25-4]

An entity could be committed to repay regardless of the outcome of the R&D under its contractual arrangement with the funding party. The following are examples of when the entity is committed to repay. [730-20-25-4(a) – 25-4(c)]

- The entity guarantees, or the contract requires repayment, regardless of the outcome of the R&D (see Example 3.4.10).
- The other parties can require the entity to purchase their interests in the R&D regardless of the outcome (see Example 3.4.20).
- The other parties automatically receive debt or equity securities upon termination or completion of the R&D regardless of outcome.

Even if the contractual terms do not require repayment unless the results of the R&D are successful, the entity must still evaluate whether it is likely that it will repay the funding party regardless of the results (see Question 3.4.40).

Example 3.4.10
Funded software arrangement – entity committed to repay

ABC Corp is developing a new human resources software application (Product X). Before development is complete, ABC enters into a perpetual license arrangement with Customer to license software Product X for $1 million, due at inception of the arrangement.

Product X will be delivered to Customer upon its general release. Technological feasibility of Product X has not been established as of inception of the arrangement and therefore the arrangement is not in the scope of Subtopic 985-
20 (see Question 3.3.40). Further, commercial sales to third parties are not yet probable.

ABC will pay Customer a royalty equal to 3% of future sales of Product X for three years. If ABC has not paid at least $1 million in royalties to Customer after three years, ABC must pay Customer the difference between $1 million and the actual royalties that were paid; this condition applies even if future sales of Product X are $0 because ABC fails to successfully complete development.

ABC is committed to repay amounts to Customer up to $1 million regardless of the outcome of the research arrangement – i.e. Customer is guaranteed at least $1 million. As such, ABC accounts for the $1 million proceeds as a liability. Further, ABC accounts for software development costs under Subtopic 985-20 – i.e. in the same manner as software development costs incurred absent the funding arrangement.

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**Example 3.4.20**

**R&D funding arrangement – purchase options**

Biotech Corp out-licenses the rights to a drug candidate in Phase 2 of clinical trials to Pharma Corp, an unrelated party with significant other commercial activities. At contract inception, FDA approval is not considered probable. Pharma funds the development of the drug candidate.

If Biotech concludes the arrangement is not in the scope of Topic 815 (see Question 3.3.20) or Subtopic 470-10 (see Question 3.3.50), it will evaluate the arrangement under Subtopic 730-20.

**Scenario 1: Entity not committed to repay**

If FDA approval is obtained, Biotech has the option (but not the obligation) to acquire the results of the R&D. If Biotech does not exercise its option, Pharma can commercialize the approved drug. There are no other conditions indicating it is probable Biotech would repurchase the results of the R&D regardless of the outcome.

Biotech concludes that it has transferred the R&D risk to Pharma because it is not committed to repay Pharma for the funding and repayment solely depends on the results of the R&D having future benefit.

Therefore, Biotech does not account for the arrangement as a liability under Subtopic 730-20. Instead, Biotech accounts for the arrangement as an obligation to perform R&D activities for others under Subtopic 730-20. Question 3.4.90 discusses exercising an option to acquire the results of R&D.

**Scenario 2: Entity committed to repay**

Assume the same facts as Scenario 1 except that If the R&D is not successful, Pharma has the option to put the results of the R&D back to Biotech for an amount equal to the funding provided by Pharma.
While there is no unconditional obligation to repay Pharma for the funding, Pharma can require Biotech to reacquire the results of the R&D even if the R&D is not successful. Therefore, Biotech is committed to repay Pharma and recognizes a liability for that obligation (i.e. a borrowing).

Question 3.4.40
What conditions indicate it is probable the entity will repay the funding regardless of outcome?

Interpretive response: Even when the terms of the contract do not require an entity to repay the funds regardless of outcome, conditions might indicate the entity bears the risk of failure of the R&D and a substantive and genuine transfer of risk has not occurred. If it is probable (i.e. likely) that the entity will repay the funding party regardless of the outcome of the R&D, there is a presumption that the entity has an obligation to repay the other parties and has incurred debt. This presumption can only be overcome with substantive evidence to the contrary. [730-20-25-5]

The following are examples in Subtopic 730-20 of conditions creating a presumption that it is probable that the entity will repay the other parties. [730-20-25-6(a) – 25-6(d)]

- The entity intends to repay all or a portion of the funds regardless of the outcome.
- The entity would suffer a severe economic penalty (i.e. the entity is compelled to repay instead of incur the penalty) if it failed to repay any of the funds regardless of the outcome of the R&D – e.g. the entity would forfeit its rights to proprietary technology needed for its ongoing operations.
- A significant related party relationship exists between the entity and funding parties (see Question 3.4.50).
- The entity has essentially completed the project before entering into the arrangement – e.g. there is not a substantive risk of R&D failure.

We believe the following are additional examples (not exhaustive) that may also indicate repayment is probable regardless of the outcome of the R&D– i.e. the transfer of risk is not substantive and genuine.

- Any portion of the repayment relates to current revenue streams (or revenues of the entity as a whole) and not just the R&D project being funded.
- The entity has an option to acquire the results of the R&D with a strike price other than fair value.
- The payment relates to multiple R&D projects (or the funding party has substitution rights) such that the risk of failure is not substantive – e.g. a portfolio of drug compounds in development.
• Repayment of any of the funds is required before the project is complete – e.g. repayment is based on development milestones.

• There is minimal commercial risk associated with repayment (e.g. repayment is primarily based on obtaining regulatory approval) and there is a high likelihood of approval.

These additional examples could also indicate that repayment is probable at contract inception and that the arrangement should be accounted for as a sale of future revenue under Subtopic 470-10 (see Question 3.3.50).

Example 3.4.30
R&D funding arrangement – obligation to repay

Pharma Corp is developing six drug candidates in Phase 2 of clinical trials. Pharma enters into an agreement with Investor under which Investor provides $100 million to Pharma at contract inception to fund the R&D of the six candidates. Pharma is required to repay Investor a lump sum milestone payment of $150 million upon FDA approval for the first candidate approved. However, no payment is required for any subsequent approvals. At contract inception, Pharma estimates that the PTRS is greater than 90% that at least one of the candidates will be approved.

Even though repayment depends on success of at least one project, Pharma nevertheless concludes that there is no substantive and genuine transfer of risk because the portfolio of compounds cumulatively provides a high probability of repayment and risk of R&D failure is not substantive. Furthermore, Investor does not have commercial risk. Therefore, Pharma recognizes a liability for its obligation to repay the funds received (see Question 3.4.70).

Note: This example illustrates the evaluation under Subtopic 730-20, but Pharma would first need to evaluate whether the arrangement was in the scope of Topic 815 (see Question 3.3.20) or Subtopic 470-10 (see Question 3.3.50). We understand the SEC staff has taken the view that certain R&D funding arrangements should be accounted for as a derivative when the repayment is based on a multiple of R&D costs incurred. It is important to consider the facts and circumstances of each arrangement and apply professional judgment to evaluate the Topic 815 scope exceptions.

Example 3.4.40
R&D funding arrangement – obligation to perform R&D services

Biotech Corp is performing R&D for a drug candidate and enters into a contract with Pharma Corp, an unrelated party with substantive operations. Under the contract, Pharma funds the rest of the R&D performed by Biotech and obtains the rights to IP being developed.
Biotech has no obligation to repay Pharma if the R&D is not successful, and Pharma cannot require Biotech to repay the funds or repurchase the IP. Further, no other conditions indicate it is probable that Biotech will repay Pharma if the R&D is not successful.

Biotech concludes that it has not incurred a liability because the R&D risk has been transferred to Pharma. Therefore, it accounts for the arrangement as an obligation to perform R&D for others (see section 3.4.30).

**Question 3.4.50**

What does the SEC consider a ‘significant’ related party relationship to be?

**Background:** The existence of a significant related party relationship between the entity receiving funding and the funding parties creates a presumption that the receiving entity will repay the funds provided by the funding parties. The presumption can only be overcome with substantive evidence to the contrary. See Question 3.4.40.

**Interpretive response:** In the SEC staff’s view, a significant related party relationship exists in an R&D funding arrangement when 10% or more of the entity providing the funds is owned by related parties. [SAB 50.Q1]

The SEC staff may also question the appropriateness of treating an R&D arrangement as a contract to perform service for others at less than a 10% level. The SEC staff will consider, among other factors, the percentage of the funding entity owned by the related parties in relationship to their ownership in and degree of influence or control over the enterprise receiving the funds. [SAB 50.Q1]

**Question 3.4.60**

Is the presumption the entity will repay overcome if the entity lacks the ability to repay?

**Background:** Question 3.4.40 discusses conditions that create a presumption that the entity will repay the funds regardless of the outcome of the R&D. That presumption can be overcome by evidence to the contrary.

**Interpretive response:** No. The SEC staff guidance specifies that the presumption that funding will be repaid cannot be overcome by evidence that the entity receiving the funds lacks the resources to repay those amounts based on its current and expected future financial condition. [SAB 50.Q2]
Question 3.4.70
How is an R&D funding arrangement classified as an obligation to repay others accounted for?

**Interpretive response:** Generally, an entity records the cash received and a corresponding liability to repay the cash. It also expenses its R&D costs as they are incurred. [730-20-25-7]

We believe the entity generally accounts for the liability consistent with Topic 470 (debt) and uses the effective interest method to recognize interest expense over time equal to the difference between the total amount expected to be repaid and the amount of funding received. Amounts repaid in excess of the funding received should not be presented as additional R&D expense. For example, if the entity receives $100 and ultimately repays $110, it would record $10 of interest expense over time using the effective interest method.

Alternatively, the entity may elect the fair value option and record the liability at fair value each period. In our experience, to simplify the subsequent accounting, some entities elect the fair value option when the repayment provisions are complex.

3.4.30 Obligation to perform contractual services

Excerpt from ASC 730-20

> Obligation to Perform Contractual Services

25-8 To the extent that the financial risk associated with the research and development has been transferred because repayment of any of the funds provided by the other parties depends solely on the results of the research and development having future economic benefit, the entity shall account for its obligation as a contract to perform research and development for others.

25-9 If the entity's obligation is to perform research and development for others and the entity subsequently decides to exercise an option to purchase the other parties' interests in the research and development arrangement or to obtain the exclusive rights to the results of the research and development, the nature of those results and their future use shall determine the accounting for the purchase transaction or business combination (or an acquisition by a not-for-profit entity).

25-10 The accounting for the cost of an item to be used in research and development is specified by paragraphs 730-10-25-1 through 25-2. The accounting for recognized intangible assets acquired by the entity is specified in Topic 350.
When the entity has transferred the financial risk to the funding party because repayment depends solely on the results of the R&D having future economic benefit, the arrangement constitutes a contract to perform R&D activities for others. Therefore, the entity has an obligation to perform contractual services. [730-20-25-8]

**Question 3.4.80**
How is R&D funding accounted for when the entity has an obligation to perform R&D for others?

**Interpretive response:** If the entity’s obligation under the arrangement is to perform R&D for others, Subtopic 730-20 does not specify how to account for the arrangement. Therefore, an entity needs to first evaluate whether the contract is in the scope of other US GAAP. For example, the entity applies Topic 606 if the funding party meets the definition of a customer; see chapter 2 of KPMG Handbook, Revenue recognition.

If the funding party is not a customer, the entity next considers whether other US GAAP applies, including Topic 808 on collaborative arrangements. If a collaborative arrangement, Topic 808 does not provide recognition and measurement guidance. Under Topic 808, to determine the appropriate recognition and measurement, an entity first evaluates whether any other US GAAP applies. If no other US GAAP applies, it considers whether an analogy to other US GAAP (including Topic 606) is appropriate; if no analogy is appropriate, it applies a reasonable and rational policy to account for the transaction. We believe this process is also acceptable for arrangements that do not qualify as collaborative arrangements. [808-10-15-5C]

When not presented as revenue from contracts with customers, in our experience there is diversity in practice about whether the amount is presented as revenue (separate from contracts with customers), a reduction of R&D expense or as other income. We believe any of these may be appropriate based on the facts and circumstances, and an entity should evaluate the nature of the funding and activities performed for the funding party to determine the appropriate presentation.

**Question 3.4.90**
How is the exercise of an option to purchase the other parties' interests in R&D accounted for?

**Interpretive response:** When the entity’s obligation is to perform R&D for others and it subsequently decides to exercise an option to purchase the other parties’ interests in the R&D arrangement, or to obtain the exclusive rights to the results of the R&D, it must consider the nature of those results and their future use to determine the accounting treatment for the purchase transaction. [730-20-25-9]
If the entity acquires a business, it accounts for the transaction as a business combination under Topic 805; see KPMG Handbook, Business combinations. If no business is acquired, the entity accounts for the transaction as an asset acquisition under Subtopic 805-50. Section 2.3.40 discusses the acquisition of an intangible asset to be used in R&D in an asset acquisition.

If the entity issues share-based payments in an asset acquisition, the arrangement may be accounted for either under Topic 718 (stock compensation) as a nonemployee award or as non-cash consideration in an asset acquisition. See Question 3.3.10 in KPMG Handbook, Asset acquisitions.

### 3.5 Funding party

**Excerpt from ASC 730-20**

> Loan or Advance to Other Parties

#### 25-11

If repayment to the entity of any loan or advance by the entity to the other parties depends solely on the results of the research and development having future economic benefit, the loan or advance shall be accounted for as costs incurred by the entity. The costs shall be charged to research and development expense unless the loan or advance to the other parties can be identified as relating to some other activity, for example, marketing or advertising, in which case the costs shall be accounted for according to their nature.

**Question 3.5.10**

**How does the funding party account for an R&D funding arrangement?**

**Interpretive response:** Similar to how entities receiving funding account for R&D funding arrangements, the funding party accounts for the arrangement based on whether repayment solely depends on the R&D results having future economic benefit – e.g. when the entity receiving the funding is committed or obligated to repay regardless of the outcome (see Question 3.4.20). [730-20-25-11]

- **Not solely dependent.** The funding party accounts for the funding as an asset – e.g. a loan or advance. See Example 3.5.10.

- **Solely dependent.** The funding party accounts for the funding as R&D costs unless it can identify the payment as relating to another activity – e.g. marketing or advertising.

If the funding party makes a nonrefundable advance payment – e.g. under an executory contract in which the funding will not be repaid even if the R&D results are successful – see section 3.7.
Example 3.5.10
Refundable advance payment for inventory under development by the supplier

ABC Corp enters into a contract to purchase inventory from an established creditworthy supplier. At contract inception, Supplier is still developing the product that meets ABC’s specifications. ABC is not involved in Supplier’s development and does not have rights to Supplier’s IP.

ABC makes an advance payment to Supplier to fund the development activities. If Supplier is unsuccessful, ABC will be refunded. If Supplier is successful, it will deliver inventory to ABC that ABC will capitalize under Topic 330 (not materials to be used in R&D).

ABC recognizes the advance payment as an asset because it is entitled to the repayment regardless of Supplier’s successful outcome, either in cash (if unsuccessful) or the delivery of inventory (if successful). It needs to evaluate the asset for impairment under the inventory purchases guidance (Topic 330) unless and until the supplier is unsuccessful at which time it should evaluate the asset for impairment under the credit impairment model (Topic 326). See Question 2.2.80 in KPMG Handbook, Credit impairment, for the scope of Topic 326 on supplier advances.

3.6 Issuance of warrants or similar instruments

Excerpt from ASC 730-20

> Issuance of Warrants or Similar Instruments

25-12 If warrants or similar instruments are issued in connection with the arrangement, the entity shall report a portion of the proceeds to be provided by the other parties as paid-in capital. The amount so reported shall be the fair value of the instruments at the date of the arrangement.

In some arrangements, the entity may issue warrants or similar instruments contemporaneous with the R&D funding. The entity allocates proceeds to the warrants or similar instruments and recognizes paid-in capital equal to the fair value of the instruments. [730-20-25-12]
Question 3.6.10

How is R&D funding accounted for when equity or debt instruments are issued to the same counterparty?

**Background:** In some R&D funding arrangements, the entity may also issue equity or debt instruments. This may be in the same contract or a separate contract entered into contemporaneously with the R&D funding arrangement.

**Interpretive response:** The entity records the instruments at fair value, which could require an allocation of the proceeds in the R&D funding arrangement between the instruments and R&D funding arrangement. The instruments are accounted for under applicable US GAAP (e.g. Topic 480, Topic 815, Topic 505). If the instruments are equity-classified, their fair value is recorded as paid-in capital. See KPMG Handbook, *Debt and equity financing*, for further information. [730-20-25-12]

We believe that if the instruments are issued in a separate contract entered into at or near the same time and in contemplation of the R&D funding arrangement, the instruments and funding contracts are combined, and accounted for similar to the issuance in a single contract.

### 3.7 Certain nonrefundable advance payments

**Excerpt from ASC 730-20**

> Certain Nonrefundable Advance Payments

**25-13** Nonrefundable advance payments for goods or services that have the characteristics that will be used or rendered for future research and development activities pursuant to an executory contractual arrangement shall be deferred and capitalized. The guidance in this paragraph does not apply to refundable advance payments for future research and development activities. An entity shall not apply the guidance in this paragraph by analogy to other types of advance payments.

**25-14** Paragraph 730-10-55-3 states that nonrefundable advance payments for future research and development activities for materials, equipment, facilities, and purchased intangible assets that have an alternative future use (in research and development projects or otherwise) shall be recognized in accordance with Subtopic 730-10.

> Certain Nonrefundable Advance Payments

**35-1** Nonrefundable advance payments capitalized under paragraph 730-20-25-13 shall be recognized as an expense as the related goods are delivered or the related services are performed. An entity shall continue to evaluate whether it expects the goods to be delivered or services to be rendered. If an entity does not expect the goods to be delivered or services to be rendered, the advance
payment capitalized under paragraph 730-20-25-13 shall be charged to expense. The guidance in this paragraph does not apply to refundable advance payments for future research and development activities. An entity shall not apply the guidance in this paragraph by analogy to other types of advance payments.

Subtopic 730-20 provides guidance on accounting for a nonrefundable advance payment made pursuant to an executory contract for goods or services to be used or rendered in future R&D activities. However, it does not provide guidance on:

- a refundable advance payment (see Question 3.5.10); or
- the acquisition of materials, equipment or intangible assets (see section 2.3).

Further, the FASB explicitly prohibits analogies to Subtopic 730-20’s guidance on nonrefundable advance payments. [730-20-25-13 – 25-14]

Question 3.7.10
How does a funding party account for a nonrefundable advance payment made pursuant to an executory contract for future R&D activities?

Interpretive response: A funding party defers and capitalizes nonrefundable advance payments made pursuant to an executory contract for goods or services to be used or rendered for future R&D activities. [730-20-25-13]

The costs are recognized as an expense as the related goods are delivered or services are performed. If the goods or services subsequently are not expected to be delivered, the amount capitalized is charged to expense. [730-20-35-1]

Example 3.7.10
Nonrefundable advance payment for R&D services

Pharma Corp enters into a two-year contract with a contract research organization (CRO) for R&D services related to one of its drug candidates. Pharma pays the CRO a nonrefundable advance payment of $1 million for future research services.

Because the advance payment is for future R&D services pursuant to an executory contract, Pharma capitalizes the upfront payment and recognizes the $1 million as an expense as services are delivered.
### Question 3.8.10

What disclosures are required for R&D funding arrangements?

**Interpretive response:** Subtopic 730-20 only provides specific disclosure requirements when the arrangement is accounted for as a contract to perform R&D activities for others – i.e. not accounted for as an obligation to repay others (i.e. a borrowing). In that case, the entity receiving funding discloses: [730-20-50-1 – 50-2]

- the terms of significant agreements – including royalty arrangements, purchase provisions, license agreements, and commitments to provide additional funding;
- the amount of compensation earned and costs incurred under the contract for each period; and
- the related party disclosures in Topic 850 when the funding party is a related party.

The entity may aggregate similar arrangements unless separate disclosure is necessary to understand the effects on the financial statements. [730-20-50-3]
When an R&D funding arrangement is accounted for as an obligation to repay the funding party or the entity is the funding party, we believe the entity should consider whether disclosure is required under other Topics. For example, Topic 235 (material accounting policies), Topic 440 (commitments). Topic 470 (debt) and/or Topic 850 (related party transactions) may apply. In addition, we believe the entity should disclose key terms of the arrangement, including the repayment terms and significant judgments and estimates (e.g. assumptions used to apply the effective interest method), and the remaining liability.
Index of changes

This index lists the significant additions and changes made in this edition to assist you in locating recently added or updated content. The new Question added in this edition is identified with **.

2. R&D costs

   Question

   2.5.15 Are SEC registrants required to include R&D specific disclosures within MD&A? **
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