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**Unpacking the Tax Treatment
of Post-2021 R&E Expenditures
Under Section 174 and
Potential Implications Across
the Return**

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2:15-3:15 pm



Today's Presenters

- Mark Hindes, Deloitte Tax LLP
- Hogan Humphries, KPMG LLP
- Kathleen King, Alvarez & Marsal Taxand, LLC
- Betty Mak, Maxar Technologies (Moderator)

Please see the end of the slide deck for presenter biographies and contact information

Agenda

1. Introductions and legislative update
2. Scope of IRC section 174 e.g., overhead costs
3. Software development costs
4. Impact on international tax provisions
5. Closing comments and Q&A

Legislative Update

Scope of IRC section 174

Definition of Section 174 Costs

- Treas. Reg. § 1.174-2(a) defines R&E expenditures as expenditures incurred in connection with the taxpayer's trade or business which represent research and development costs in the experimental or laboratory sense
 - The term generally includes all such costs incident to the development or improvement of a product. (emphasis added)
- This definition of R&E expenditures is broad and may include certain taxpayer costs that are not typically thought of as research and development (R&D):
 - Heat, Light, Power
 - Lab Materials
 - Attorneys Fees (e.g. patent attorneys)
 - Building Depreciation
- The definitional scope of R&E expenditures under section 174 is broader than the definitional scope of "qualified research expenditures" under section 41

Potentially significant costs that could be “incident to” the development of a product

- Employee costs (e.g. self-insured medical, fringe benefits, payroll taxes)
- Cumulative overhead costs (utilities, building depreciation, building rent)
- Patent and regulatory costs incident to product development
- Supplies used in R&E
 - Often coded as “cost of goods sold” in taxpayer records
 - Consider application of section 263A
- Pilot Models used in R&E
- Allocable share of certain M Adjustments
 - Amortization of intangible property used in research (e.g. acquired know how)
 - Bonus depreciation claimed on property used in research (e.g. testing equipment)

Costs **NOT** within definitional scope of section 174

- The section 174 regulations specifically exclude certain costs from the definition of R&E expenditures
 - Ordinary testing or inspection of materials for quality control
 - Efficiency surveys
 - Management studies
 - Consumer surveys
 - Advertising or promotions
 - Acquisition of another's patent, model, production, or process
 - Research in connection with literary, historical, or similar projects
- Other types of costs arguably outside of the definitional scope of section 174:
 - General and administrative expenses incident to the taxpayer's activities as a whole rather than incident to the development of products in particular (finance, accounting, and human resources)
 - Activity that is related solely to business operations or maintenance (e.g., routine support of production line, routine customer support)

Bonus Depreciation Example

US-based R&D cost center includes the cost of research engineers who spend 100% of their time performing research and development activities as well as certain R&D supplies and overhead allocable to the research effort (e.g. building rent and utilities). On January 1, 2022 the taxpayer purchases \$200,000 worth of testing equipment that is immediately placed into service and used exclusively for R&D purposes. Assume the testing equipment is amortized over five years for GAAP purposes and is eligible for first year additional depreciation under section 168(k).

R&D Cost Center Expenses	GAAP	M-Adjustment	Section 174 R&E (on tax method)
Engineers Salary	\$ 920,000	\$ -	\$ 920,000
Depreciation on Testing Equip.	\$ 40,000	\$ 160,000	\$ 200,000
R&D Supplies	\$ 20,000	\$ -	\$ 20,000
Other R&D Overhead	\$ 20,000	\$ -	\$ 20,000
R&D Expenditures	\$ 1,000,000	\$ 160,000	\$ 1,160,000

Section 197 Intangibles

On January 1, 2022, BigPharma acquires all of the assets of BioTarget, an early-stage Life Science company developing a drug called BioProduct. BioTarget has developed “know how” that is vital to completing the development of BioProduct. A portion of the purchase price is allocated to the following section 197 intangibles: (1) \$1,500,000 allocated to “know-how” and (2) \$3,000,000 allocated to goodwill. Following acquisition, BigPharma continues to incur R&E costs with respect to BioProduct in a single dedicated cost center.

BioTarget Expenses	GAAP	M-Adjustment	Tax Deduction (before Sec. 174)	Sec 174 R&E
Scientist Compensation	\$ 900,000	\$ -	\$ 900,000	\$ 900,000
Other cost “Incident to” R&E	\$ 50,000	\$ -	\$ 50,000	\$ 50,000
Amortization of Acq’d Know-How	\$ -	\$ 100,000	\$ 100,000	\$ 100,000
Amortization of Goodwill	\$ -	\$ 200,000	\$ 200,000	\$ -
Total	\$ 950,000	\$ 300,000	\$ 1,250,000	\$ 1,050,000

Practical Approaches

- Define appropriate level of granularity
- Consider existing data sources that can be leveraged to identify R&D activity:
 - ASC 730 R&D
 - Prior year research credit studies
 - Transfer pricing calculations
- Review cost centers not already classified as R&D and consider which may be “incident to” R&D
 - Operational or administrative support of R&D
 - Patent and regulatory activity necessary to bring products to market
 - Product-related aesthetic design activities

Practical Approaches

- Allocation of costs
 - Are there costs “incident to” product development that have not already been charged to a cost center?
 - Are there material M adjustments that should be allocated to cost center costs to reflect federal income tax methods of accounting?
- Consider potential collateral impacts of section 174 classification
 - Treas. Reg. Sec. 1.861-17
 - UNICAP
 - Transfer Pricing

Software Development Costs

Section 174 Costs – Addition of Software Development

- Section 174(b) defines specified research or experimental expenditures as research or experimental expenditures which are paid or incurred by the taxpayer during such taxable year in connection with the taxpayer's trade or business.
- Treas. Reg. § 1.174-2(a)(1) defines research or experimental expenditures and includes an uncertainty test.
- Section 174(c)(3) provides any amount paid or incurred in connection with the *development of any software* **shall be treated** as a research or experimental expenditure.
 - Key terms to define:
 - What is development?
 - What is software?

Pre-TCJA Law – Rev. Proc. 2000-50

- Rev. Proc. 2000-50 provided several options for taxpayers to treat costs associated with developing computer software.
 - Fully expense following rules similar to pre-TCJA Section 174(a) – some taxpayers then elected for 10-year amortization with Section 59(e) elections.
 - Capitalize and amortize over a period of 60 months following pre-TCJA Section 174(b).
 - Capitalize and amortize over a period of 36 months following rules provided in Section 167. These costs were eligible for bonus depreciation.
- Importantly, Rev. Proc. 2000-50 provided a definition of the term “computer software” but not a definition of the term “developing” or “development” as used in new section 174(c)(3).

Pre-TCJA Law – Rev. Proc. 2000-50 definition of computer software

- For the purpose of this revenue procedure, “computer software” is any program or routine (that is, **any sequence of machine-readable code**) that is designed to cause a computer to perform a desired function or set of functions, and the documentation required to describe and maintain that program or routine.
- Computer programs of all classes, for example, operating systems, executive systems, monitors, compilers and translators, assembly routines, and utility programs as well as application programs, are included.
- Computer software does not include any data or information base described in §1.197-2(b)(4) of the Income Tax Regulations (for example, data files, customer lists, or client files) unless the data base or item is in the public domain and is incidental to a computer program. Nor does it include any cost of procedures that are external to the computer’s operation.

What is development?

- Merriam-Webster's Dictionary - "to create or produce especially by deliberate effort over time."
- IBM's website – "software development refers to a set of computer science activities dedicated to the process of creating, designing, deploying, and supporting software" The website also states that software is the set of instructions or programs that tell a computer what to do.
- Gartner's website definition of software development – "project management, specifications, design, programming, testing, installation and training associated with a specific application development project of any size."
- Common theme – activities to produce software, uncertainty not mentioned. Uncertainty is a tax concept from section 174.

IRS Audit Guidelines on the Application of the Process of Experimentation for all Software

- Common software development activities
 - Project planning and project management.
 - Developing user requirements that define the software's functionality.
 - Developing specifications, such as functional, design or test specifications.
 - Estimating resource requirements.
 - Programming.
 - Tuning and benchmarking of software.
 - Performing software maintenance and debugging.
 - Improving performance and/or scalability of an application.
 - Quality assurance (QA)/Testing (module, systems, integration, alpha, beta, performance, stress, regression, user acceptance, and manual testing, etc.) occurs throughout the development and maintenance processes.

Example Fact Patterns for Consideration

- IT Script

- Facts: A company's IT department writes a script that is deployed to each employee's computer. The script will automatically install the latest version of desktop productivity applications. The user will not have to intervene in the installation by agreeing to license terms or take any other action other than click a button to execute the script.
 - Is this script computer software?
 - Does this rise to the level of software development that would require capitalization under section 174?
 - Would this be considered qualified research for section 41?

Example Fact Patterns for Consideration

- Software Maintenance Activities
 - Facts: A company that develops video conferencing software updates their software to support a new camera and microphone device developed by a device manufacturer. The device manufacturer provides instructions and sample software to assist the company in updating the video conferencing software.
 - Does this rise to the level of software development that would require capitalization under section 174?
 - Would this be considered qualified research for section 41?

Example Fact Patterns for Consideration

- ERP Projects

- Facts: A company is replacing its on-premises software system. The company hires a vendor to complete the project and plans to use the new system with as few modifications as possible. The vendor states that all activities are configuration of the new system and the vendor does not create any machine-readable code that is used in the implementation?
 - Is there creation of software?
 - Does this rise to the level of software development that would require capitalization under section 174?
 - Would this be considered qualified research for section 41?

- (1) The cost of the purchased ERP software (including the sales tax) is to be capitalized under §263(a) and amortized ratably over 36 months, beginning with the month the software is placed in service by Taxpayer.
- (2) The employee training and related costs are deductible as current expenses under §162. However, the pre-paid training expenses are deductible as a current expense in the year in which incurred under the requirements of §461.
- (3) The separately stated computer hardware cost is to be capitalized under §263(a) and depreciated under §168 over a 5-year recovery period.

ERP Guidance – PLR 200236028 – Reference Materials

- (4) If Taxpayer is solely responsible for the creation and performance of the software project covered by the consulting contracts, **the costs of writing machine readable code software** (and its allocable portion of the costs of modeling and design of additional software) under Taxpayer's consulting contracts are self-developed computer software and are allowed to be deductible as current expenses pursuant to section 5.01(1) of Rev. Proc. 2000-50.
- (5) The costs of option selection and implementation of templates (and its allocable portion of the costs of modeling and design of additional software) under Taxpayer's consulting contracts are installation/modification costs that are to be capitalized and amortized as part of the purchased ERP software ratably over 36 months, beginning with the later of the month the purchased software is placed in service by Taxpayer or the month the template work is available for use by Taxpayer. The undefined miscellaneous costs under Taxpayer's consulting contracts are also capitalized as a part of the underlying purchased ERP software and amortized over the same 36 month period described in the preceding sentence.
- Except as expressly provided herein, no opinion is expressed or implied concerning the tax consequences of any aspect of the transaction described above under any other provision of the Code or regulations. Specifically, we express no opinion on whether §174 or the regulations thereunder apply to Taxpayer's expenditures at issue.

International Provisions

Impact of Section 174 on International Provisions



FTC



BEAT



GILTI



FDII

Reduce Worldwide Taxes

Base Erosion and Anti-Abuse Tax (BEAT)

- **Who does it apply to?**

Taxpayers with >\$500 million of gross receipts) that make certain base erosion payments to foreign related parties (“FRPs”).

- **What is it?**

A corporate minimum tax.

How is it impacted by Section 174 capitalization?

Reduction in Section 174 expenditures will increase taxable income. This may decrease the likelihood of being subject to BEAT.

Base Erosion and Anti-Abuse Tax

- The BEAT rules attempt to reduce the permanent shifting of U.S. income to off-shore jurisdictions.
- Once modified taxable income is determined, the BEAT is applied at a rate that changes over the life of the provision.
 - From 2019 to 2024, BEAT is calculated at 10 percent; and
 - Beginning in 2025, BEAT is calculated at 12.5 percent.

Global Intangible Low-Taxed Income (GILTI)

- **Who does it apply to?**

Taxpayers with a controlled foreign corporation (CFC).

- **What is it?**

Potential income inclusion. Reported on dividend line of Form 1120 (flowing from schedule B and form 8992)

GILTI is income earned abroad by controlled CFCs of U.S. corporations. The tax on GILTI is intended to discourage moving intangible assets and related profits to countries with tax rates below the 21% U.S. corporate rate. FTC should be considered in this analysis.

- **How is it impacted by Section 174 capitalization?**

Capitalization of R&E expenditures (over a 15-year recovery period) will cause “Tested Income” to increase.

GILTI Calculation

CFC's gross income

10% of QBAI

less Deductions

= DTIR (Deemed Tangible Income
Return)

less Subpart F income

= Tested Income

Tested Income less DTIR = GILTI (taxable to the US shareholder)

Global Intangible Low-Taxed Income (GILTI)

CFC's	Pre-2022	2022
Gross Income	100,000,000	100,000,000
Less: Deductions (not 174)	(30,000,000)	(30,000,000)
Less: 174 Deductions	(30,000,000)	(1,000,000)
Tested Income	40,000,000	69,000,000
Less: DTIR	(500,000)	(500,000)
GILTI	39,500,000	68,500,000

GILTI is greater and may result in greater tax due from the US shareholder depending upon their overall FTC position.

Foreign-Derived Intangible Income (FDII)

- **Who does it apply to?**

U.S.-based multinationals that export goods or services to other countries.

- **What is it?**

The profit from the sale of intangible goods to other countries may benefit from a favorable U.S. tax rate on FDII (13.125% v. 21%). The FDII deduction under section 250 comes down to two basic questions:

- What is the intangible income a domestic corporation is deemed to produce?
- What part of this intangible income is foreign derived?

- **How is it impacted by Section 174 capitalization?**

Deduction eligible income (“DEI”), calculated as gross DEI less allocable deductions, will increase. Whether such impact is negative or positive will depend on how 174 costs are allocated and apportioned.

Foreign-Derived Intangible Income

Step 1.
Determine
Deduction
Eligible Income
(DEI)

Step 2.
Calculate
Deemed
Intangible
Income (DII)

Step 3.
Determine
Foreign-
Derived
Deduction
Eligible Income
(FDDEI)

Step 4.
Calculate the
FDII deduction
under section
250

$$FDII = \frac{FDDEI}{DEI} * (DEI - (10\% * QBIAI))$$

FDII Mechanics


US Based Multinational
Gross Income (Form 1120, line 11)
Less: GILTI and Other Exclusions from Income
Less: Deductions Allocated to DEI
= DEI
Less: DTIR (10% x QBAI)
= DII
X FDEII/DEI
= FDII
FDII X 37.5% = FDII Deduction

Section 174 Expenses are included in the calculation of FDEII and DEI.

As a result of capitalized R&E expenditures, FDII benefits may increase due to increased taxable income (and therefore deduction-eligible income and foreign-derived deduction-eligible income).

Other Income Tax Implications

- State Tax Implications
 - Decreased R&E deduction due to capitalization in 2022 and after will increase federal income tax.
 - For states that do not conform to new Section 174, taxpayers must assess the impact on state taxes.
- How should amortization expense related to capitalized R&E expenditures be treated under Section 263A (UNICAP)?
- What procedures are necessary to implement the method change to required capitalization?



Q&A

Presenters Information

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Mark Hinds has a diversity of experience dealing with federal income tax issues in both public accounting and private industry particularly involving the research credit and accounting method issues pertaining to high-technology companies, cryptocurrency, and leasing. In his current role in Deloitte's Washington national tax practice Mark focuses on providing technical support and quality assurance related to accounting method issues for clients nationwide. Mark is a certified public accountant in Washington DC and Washington State and holds a bachelor's degree in accounting from Washington State University and a Masters of Business Taxation from the University of Southern California.

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Hogan is a Managing Director in KPMG's Washington National Tax ("WNT") Incentive and Credits practice with over 10 years of experience in assisting clients with credits and incentives including federal and state research tax credits, Section 174 R&E deductions, and Section 59(e) elections. He consults with clients on numerous tax issues including application of the IRS LB&I ASC 730 R&D Directive; IRS examinations; and various credits and incentive issues.

Hogan has extensive experience providing tax services to a wide variety of clients ranging from start-up companies with fewer than five employees to Fortune 500 companies. For over 10 years, Hogan was a project manager and assisted companies with calculating and substantiating research and development tax credits. In his current WNT role, Hogan performs technical reviews of deliverables for the national practice, provides exam and audit support, develops implementation materials for engagement teams including new technology tools, and provides thought-leadership through published articles, external webcasts, and trainings for continuing professional education credits.

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Kathleen is a managing director of Alvarez & Marsal Taxand and has more than 25 years of experience advising corporate clients on federal tax matters. Her experience includes helping clients claim, document, and sustain tax incentives, including federal and state research tax credits, investment credits, energy credits, payroll based credits, fixed asset treatment, and meals and entertainment deductions. Her projects range from targeted consulting engagements designed to address a specific issue to large-scale projects utilizing engagement teams working concurrently in multiple locations.

She has advised clients in a variety of industries including aerospace and defense, food products, manufacturing, financial services, pharmaceutical products, and IT/software. Prior to joining A&M Taxand, she served as a National Office for the research credit services teams at Big Four accounting firms. She has written numerous articles and regulatory comments on the research credit and is a frequent speaker on research credit issues.

Kathleen earned her bachelor's degree in mineral land management from the University of Colorado and her master's degree in accounting from American University. She is a certified public accountant.

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