ANNOUNCEMENT AND REPORT CONCERNING ADVANCE PRICING AGREEMENTS

March 30, 2001

This Announcement is issued pursuant to § 521(b) of Pub. L. 106-170, the Ticket to Work and Work Incentives Improvement Act of 1999, requiring that the Secretary of the Treasury annually report to the public concerning Advance Pricing Agreements (APAs) and the APA Program. The first report, in Announcement 2000-35, 2000-1 C.B. 922, covered calendar years 1991 through 1999. This second report describes the experience of the APA Program during calendar year 2000 consistent with the mandate of § 521(b). This document does not provide general guidance regarding the application of the arm's length standard; rather, it reports on the structure and activities of the APA program.

Sean F. Foley
Director, Advance Pricing Agreement Program

Background

IRC § 482 provides that the Secretary may distribute, apportion, or allocate gross income, deductions, credits, or allowances between or among two or more commonly controlled businesses if necessary to reflect clearly the income of such businesses. Under the regulations, the standard to be applied in determining the true taxable income of a controlled business is that of a business dealing at arm's length with an unrelated business. The arm's length standard also has been adopted by the international community and is incorporated into the transfer pricing guidelines issued by the Organization for Economic Cooperation and Development (OECD). OECD, TRANSFER PRICING GUIDELINES FOR MULTINATIONAL ENTERPRISES AND TAX ADMINISTRATORS (1995). Transfer pricing issues by their nature are highly factual and have traditionally been one of largest issues identified by the IRS in its audits of multinational corporations. The Advance Pricing Agreement (APA) Program is designed to resolve actual or potential transfer pricing disputes in a principled, cooperative manner, as an alternative to the traditional adversarial process. An APA is a binding contract between the IRS and a taxpayer by which the IRS agrees not to seek a transfer pricing adjustment under IRC § 482 for a covered transaction if the taxpayer files its tax return for a covered year consistent with the agreed transfer pricing method. In year 2000, the IRS and taxpayers executed 63 APAs.

Since 1991, with the issuance of Rev. Proc. 91-22, 1991-1 C.B. 526, the IRS has offered taxpayers through the APA Program the opportunity to reach an agreement in advance of filing a tax return on the appropriate transfer pricing methodology (TPM) to be applied to related party transactions. In 1996, the IRS issued internal procedures for processing APA requests. Chief Counsel Directives Manual (CCDM), ¶¶ (42)(10)10 –(42)(10)(16)0 (November 15, 1996). Also in 1996, the IRS updated Rev. Proc. 91-22 with the release of Rev. Proc. 96-53, 1996-2 C.B. 375. The APA Program continues to operate under the provisions of Rev. Proc. 96-53, which provides taxpayers with instructions of how to apply for an APA, and what to expect in the processing of the case. In an effort to encourage taxpayers to utilize the APA process, in 1997 the IRS instituted an Early Referral Program by which, in appropriate cases, field examination teams may suggest to taxpayers that APAs be pursued before substantial time is spent examining transfer pricing issues. In addition, in 1998, the IRS published Notice 98-65, 1998-2 C.B. 803, which set forth streamlined APA procedures for Small Business Taxpayers (SBTs). That Notice also expanded the availability of the lowest APA user fee in an effort to attract taxpayers who may not have the resources to do the sophisticated economic studies normally required in APA submissions.

Advance Pricing Agreements

An APA generally combines an agreement between a taxpayer and the IRS on an appropriate transfer pricing methodology (TPM) for the transactions at issue (Covered Transactions) with an agreement between the U.S. and one or more foreign tax authorities (under the authority of the mutual agreement process of our income tax treaties) that the TPM is correct. With such a "bilateral" APA, the taxpayer ordinarily is assured that the income associated with the Covered Transactions will not be subject to double taxation by the IRS and the foreign tax authority. It is the policy of the United States, as set forth in § 7 of Rev. Proc. 96-53 to encourage taxpayers that enter the APA program to seek bilateral or multilateral APAs when competent authority procedures are available with respect to the foreign country or countries involved. However, the IRS may execute an APA with a taxpayer without reaching a competent authority agreement (a "unilateral" APA).

A unilateral APA is an agreement between a taxpayer and the IRS establishing an approved transfer pricing methodology for U.S. tax purposes. A unilateral APA binds the taxpayer and the IRS, but obviously does not prevent foreign tax administrations from taking different positions on the appropriate transfer pricing methodology for a transaction. As stated in Rev. Proc. 96-53, should a transaction covered by a unilateral APA be subject to double taxation as the result of an adjustment by a foreign tax administration, the taxpayer may seek relief by requesting that the U.S. competent authority consider initiating a mutual agreement proceeding, provided there is an applicable income tax treaty in force with the other country.

The APA Program

APAs are negotiated with the taxpayer by an IRS team headed by an APA team leader. As of December 31, 2000, the APA program had 16 team leaders, of whom 14 were attorneys and 2 were former international examiners. The team leader is responsible for organizing the IRS APA team, arranging meetings with the taxpayer, securing whatever information is necessary from the taxpayer to analyze the taxpayer's related party transactions, analyzing the available facts under the arm's length standard of § 482 and the regulations, and negotiating with the taxpayer.

The APA team generally includes an economist, an international examiner and, in a bilateral case, a competent authority analyst who leads the discussions with the treaty partner. The economist may be from the APA Program or from the IRS field organization. The APA team may include LMSB field counsel, other LMSB exam personnel, and an appeals officer.

The APA Process

The APA process is voluntary. Taxpayers submit an application for an APA, together with a user fee as set forth in Rev. Proc. 96-53. The APA process can be broken into five phases: (1) application; (2) due diligence; (3) analysis; (4) discussion and agreement; and (5) drafting and execution.

(1) The APA Application

In many APA cases, the taxpayer's application is preceded by a pre-file conference with the APA staff in which the taxpayer can solicit the informal views of the APA Program. Pre-file conferences can occur on an anonymous basis, although a taxpayer must disclose its identity when it applies for an APA. The APA Program's jurisdiction over a particular year is established by the filing of the appropriate user fee on or before the due date of the tax return for that year. Many taxpayers file a user fee first and then follow up with a full application later. The procedures for pre-file conferences, user fees, and delayed applications can be found in Rev. Proc. 96-53.

The APA application can be a relatively modest document for a small business taxpayer consisting of about 30 to 50 pages. Notice 98-65 describes the special APA procedures for small businesses. For most taxpayers, however, the APA application is a substantial document filling several binders. The APA Program makes every effort to reach agreement on the basis of the taxpayer's application. Two recent applications from two taxpayers in the same industry illustrate this point. Each taxpayer has proposed differing algorithms, within the same transfer pricing method, for valuing a service associated with the development of a product. The APA Program believes that both algorithms, if applied correctly, should converge and provide an accurate measure of the value of the service. As a consequence, the APA Program will work with both algorithms proposed by the two taxpayers, and will not insist that taxpayers adopt one algorithm over another.

The application is assigned to an APA team leader who will be responsible for the case. The APA team leader's first responsibility is to organize the APA team. This involves contacting the appropriate LMSB International Territory manager to secure the assignment of an international examiner to the APA case and the LMSB Counsel's office to secure a Division Counsel lawyer. In a bilateral case, the U.S. Competent Authority will assign a competent authority analyst to the team. In a large APA case, the international examiner may invite his or her manager and other LMSB personnel familiar with the taxpayer to join the team. When the APA may affect taxable years in Appeals, the appropriate appellate conferee will be invited to join the team. The APA team leader will then distribute copies of the APA application to all team members and will set up an opening conference with the taxpayer. The APA office strives to hold this opening conference within 45 days of the receipt of the complete application. At the opening conference, the APA team leader will propose a schedule designed to complete the recommended U.S. negotiating position for a bilateral APA within 9 months from the date the full application was filed and to complete a unilateral APA within 12 months from the application date.[1]

(2) Due Diligence

The APA team must satisfy itself that the relevant facts submitted by the taxpayer are complete and accurate. This due diligence aspect of the APA is vital to the process. It is because of this due diligence that the IRS can reach advance agreements with taxpayers in the highly factual setting of transfer pricing. Due diligence can proceed in a number of ways, but in a large case the taxpayer and the APA team typically will agree to a meeting, or more often to a series of meetings on dates, established in the opening conference. In advance of the meeting, the APA team leader will submit a list of questions to the taxpayer for discussion at the meeting. The meeting may result in a second set of questions. These questions from the IRS are developed jointly by the APA team leader and the IRS field. It is important to note that this due diligence is not an audit and is focused only on the transfer pricing issues associated with the transactions in the taxpayer's application, or such other transactions that the taxpayer and the IRS may agree to add.

(3) Analysis

A significant part of the analytical work associated with an APA is done typically by the APA or IRS field economist assigned to the case. The analysis may result in the need for additional information. Once the APA team has completed its due diligence and analysis, the APA team leader will begin negotiations with the taxpayer over the various aspects of the APA including the selection of comparable transactions, asset intensity and other adjustments, the transfer pricing methodology, which transactions to cover, the appropriate critical assumptions, the APA term, and other key issues. The APA team leader will discuss particularly difficult issues with his or her managers, but in the main the APA team leader is empowered to negotiate the APA.

(4) Discussion and Agreement

[1] The average time for completing a negotiating position in year 2000 was 16.1 months for a new APA. Although statistics regarding negotiating positions were not published for year 1999, 16.1 months, represents an improvement and progress towards this goal compared to past years. A similar improvement was seen with unilateral APAs, with an average processing time of 14.1 months for year 2000, as compared to 18.9 months for year 1999.

This phase differs for bilateral and unilateral cases. In a bilateral case, the discussions proceed in two parts and involve two IRS offices -- the APA Program and the U.S. Competent Authority. In the first part, the APA team will attempt to reach a consensus with the taxpayer regarding the recommended position that the U.S. Competent Authority should take in negotiations with its treaty partner. This recommended U.S. negotiating position is a paper drafted by the APA team leader and signed by the Associate Chief Counsel (International) or his designee that provides the APA Program's view of the best transfer pricing methodology for the covered transaction, taking into account the IRC, the Treasury regulations, the relevant tax treaty, and the U.S. Competent Authority's experience with the treaty partner.

The experience of the APA office and the U.S. Competent Authority is that APA negotiations are likely to proceed more rapidly with a foreign competent authority if the taxpayer fully supports the U.S. negotiating position. Consequently, the APA Office works together with the taxpayer in developing the recommended U.S. position. On occasion, the APA team will agree to disagree with a taxpayer. In these cases, the APA office will send a recommended U.S. negotiating position to the U.S. Competent Authority that includes elements with which the taxpayer does not agree. This disagreement is noted in the paper. The APA team leader also solicits the views of the field members of the APA team, and, in the vast majority of APA cases, the international examiner, LMSB field counsel, and other IRS field team members concur in the position prepared by the APA team leader.

Once the APA Program completes the recommended U.S. negotiating position, the APA process shifts from the APA Program to the U.S. Competent Authority. The U.S. Competent Authority analyst assigned to the APA will take the recommended U.S. negotiating position and prepare the final U.S. negotiating position which is then transmitted to the foreign competent authority. The negotiations with the foreign competent authority are conducted by the U.S. Competent Authority analyst, most often in face-to-face negotiating sessions conducted periodically throughout the year. At the request of the U.S. Competent Authority analyst, the APA team leader often will continue to assist the negotiations.

In unilateral APA cases, the discussions proceed solely between the APA Program and the taxpayer. In a unilateral case, the taxpayer and the APA Program must reach agreement to conclude an APA. Like the bilateral cases, the APA team leader almost always will achieve a consensus with the IRS field personnel assigned to the APA team regarding the final APA. The APA Program has a procedure in which the IRS field personnel are solicited formally for their concurrence in the final APA. This concurrence, or any items in disagreement, are noted in a cover memorandum prepared by the APA team leader that accompanies the final APA sent forward for execution by the Associate Chief Counsel (International) or his designee.

(5) Drafting and Execution

Once the IRS and the taxpayer reach agreement, the drafting of the final APA generally takes little time because the APA Program has developed standard language that is incorporated into every APA. The current version of this language is found in Attachment A. As noted above, APAs are executed by the Associate Chief Counsel (International) or his designee for the IRS. The APA is executed for the taxpayer by an appropriate corporate officer.

The Current APA Office Structure, Composition, and Operation

For the past three years, the APA Office has been structured into two branches, each staffed with a mix of APA team leaders, economists, and support staff and headed by a branch chief. The two branch chiefs report to the Director, APA. As of December 31, 2000, the APA staff was as follows:

<table>
<tr><td colspan="2" align="center"><u>Director's Office</u>
1 Director
1 Secretary to the Director</td></tr>
<tr><td><u>Branch 1</u>
1 Branch Chief (vacant)
1 Secretary
11 Team Leaders
1 Economist</td><td><u>Branch 2</u>
1 Branch Chief
1 Secretary
5 Team Leaders
2 Economists
1 Paralegal</td></tr>
</table>

The APA staffing grew modestly in 2000, rising from 23 persons at the end of 1999 to 25 as of December 31, 2000. The APA Office, however, had significant turnover in the past year. Of the 25 members of the APA staff, 9 were new to the program in 2000, replacing 7 people who left for other positions. The number of team leaders grew from 14 to 16, while the number of economist dropped from 4 to 3. Average caseloads per team leader remained essentially unchanged from year-end to year-end at 13 APAs per team leader. The affect of the two additional team leaders was mitigated by significantly higher total inventory. As set forth in Table 1 below, new APA filings rose 32% to 91 as compared to 69 in the prior year.

In August 2000, the General Accounting Office published <u>Tax Administration: IRS' Advance Pricing Agreement Program</u>, GGD-00-168 The report found that the APA program was not meeting consistently its goal of processing unilateral APA cases within 12 months and completing recommended U.S. negotiating positions within 9 months. In his response to the GAO, which was also published in the August report, the Commissioner of Internal Revenue stated:

> The main reason APA cases take longer than the ideal to process is resource constraints. In this way, the APA Program has been a victim of its own success. As the Program's reputation for reaching principled, even-handed, practical solutions to some of the most difficult cases facing the IRS and taxpayers has grown, demand for APAs has also grown. Even though we are processing APAs at a record pace, this demand has outstripped the Program's resources.

Recognizing these resource constraints, the Chief Counsel in June 2000 approved an initiative to expand the APA program from two to four branches. These additional positions have been announced and applications are now being processed.

Approximately 25% of the APA caseload comes from taxpayers located west of the Mississippi. The majority of these cases (ranging between 50% and 75% depending on the year) are from California. Servicing these Western cases involves significant travel by both APA staff and taxpayers. The processing of Western cases from Washington, D.C. also is more difficult due to time zone differences. To better service these Western cases, the APA Program plans to establish a new branch four located in California. The California APA cases are divided almost evenly between northern and southern California. As a consequence, the APA Program plans to establish a split branch with two offices. One office would be located in Los Angeles and one would be located in the San Francisco Bay area. The San Francisco office will open first, with the Los Angeles office to follow as resources are available. Establishing a Western branch is expected to have a number of benefits to the APA Program and taxpayers including more rapid case processing, reduction in travel cost, and closer relations with Western taxpayers and taxpayer organizations.

The planned APA Program structure, as memorialized in Chief Counsel Notice N(30)000-346, Nov. 19, 2000, (Organization and Function of the Office of Associate Chief Counsel (International)) is as follows:

<table>
<tr><td colspan="5">Director</td></tr>
<tr><td>Branch 1</td><td>Branch 2</td><td>Branch 3</td><td colspan="2">Branch 4</td></tr>
<tr><td colspan="3">Washington, DC
Office</td><td>San Francisco
Office</td><td>Los
Angeles
Office</td></tr>
</table>

The August GAO report also noted that the APA Program was not systematically tracking the reasons why particular APA cases had required more time to process. In response, the APA Program this past fall adopted a procedure by which APA team leaders periodically record whether each APA case assigned to them is proceeding within the timeliness goals, and if not, identifies the reason for the delay. This information is recorded in the central case processing computer data base of the IRS Chief Counsel and will be available for analysis by management.

Model APA at Attachment A

[§ 521(b)(2)(B)]

APA Program Statistical Data

[§ 521(b)(2)(C) and (E)]

The statistical information required under § 521(b)(2)(C) is contained in Tables 1 and 9 below; the information required under § 521(b)(2)(E) is contained in Tables 2 and 3 below:

TABLE 1: APA APPLICATIONS, EXECUTED APAS, AND PENDING APAS

	Unilateral	**Bilateral**	**Multilateral**	**Year Total**	**Cumulative Total**
APA applications filed during year 2000	24	67		91	492
APAs executed • Year 2000 • 1991–1999	 31 112	 30 114[2]	 2 5	 63 231	 294
APA renewals executed during year 2000	10	10	1	21	54
Revised or Amended APAs executed during year 2000	2			2	5
Pending requests for APAs	45	166		211	211
Pending requests for renewal APAs	14	45		59	59
APAs revoked or canceled				0	1
APAs withdrawn				3	49

[2] One 1996 APA involving a US Possession is counted as a bilateral APA.

TABLE 2: MONTHS TO COMPLETE APAS

Months to Complete Advance Pricing Agreements in Year 2000	
Combined Unilateral, Bilateral, Multilateral: Average	24.0
Combined Unilateral, Bilateral, Multilateral: Median	20.5

Unilateral New		**Unilateral Renewal**		**Unilateral Combined**	
Average	16.3	Average	12.8	Average	15.2
Median	11.0	Median	11.5	Median	11.0

Bilateral/Multilateral New		**Bilateral/Multilateral Renewal**		**Bilateral/Multilateral Combined**[3]	
Average	34.4	Average	27.4	Average	32.5
Median	34.0	Median	24.0	Median	33.0

[3] Although the time required to complete a negotiating position has substantially improved in the past year, the average time required to conclude a bilateral or multilateral APA has historically been split roughly equally between the APA and Competent Authority Offices.

TABLE 3: APA COMPLETION TIME – MONTHS PER APA

Months	Number of APAs	Months	Number of APAs	Months	Number of APAs	Months	Number of APAs
1	1	**16**	1	**31**	0	**46**	0
2	3	**17**	1	**32**	1	**47**	2
3	1	**18**	2	**33**	2	**48**	2
4	0	**19**	0	**34**	4	**49**	0
5	4	**20**	2	**35**	0	**50**	0
6	1	**21**	1	**36**	0	**51**	1
7	0	**22**	2	**37**	0	**52**	0
8	1	**23**	2	**38**	0	**53**	0
9	2	**24**	2	**39**	0	**54**	0
10	3	**25**	2	**40**	0	**55**	2
11	3	**26**	0	**41**	0	**56**	0
12	4	**27**	1	**42**	2	**57**	1
13	0	**28**	0	**43**	2	**58**	1
14	0	**29**	0	**44**	0	**59**	0
15	4	**30**	2	**45**	1	**60**	0

TABLE 4: RECOMMENDED NEGOTIATING POSITIONS

Recommended Negotiating Positions Completed in Year 2000	36

TABLE 5: MONTHS TO COMPLETE RECOMMENDED NEGOTIATING POSITIONS

Combined		New		Renewal	
Average	14.9	Average	16.1	Average	11.9
Median	15.0	Median	15.0	Median	12.5

TABLE 6: RECOMMENDED NEGOTIATING POSITIONS COMPLETION TIME – MONTHS PER APA

Months	Number	Months	Number	Months	Number	Months	Number
1	1	**11**	2	**21**	1	**31**	0
2	0	**12**	2	**22**	0	**32**	0
3	0	**13**	2	**23**	2	**33**	0
4	0	**14**	3	**24**	0	**34**	1
5	0	**15**	2	**25**	0	**35**	0
6	2	**16**	0	**26**	1	**36**	1
7	2	**17**	2	**27**	0	**37**	0
8	1	**18**	3	**28**	4	**38**	0
9	2	**19**	1	**29**	0	**39**	0
10	0	**20**	0	**30**	0	**40**	1

TABLE 7: SMALL BUSINESS TAXPAYER APAS [4]

Small Business Taxpayer APAs Completed in Year 2000	10
Renewals	2
New	8
Unilateral	10
Bilateral	0

TABLE 8: MONTHS TO COMPLETE SMALL BUSINESS TAXPAYER APAS

Months to Complete Small Business Taxpayer APAs in Year 2000					
New		**Renewal**		**Combined**	
Average	8.5	Average	6.5	Average	8.1
Median	7.5	Median	6.5	Median	7.0

[4] A " small business taxpayer" is a U.S. taxpayer with total gross income of $ 200 million or less, and the APA is processed under the special procedures set forth in Notice 98-65.

TABLE 9: INDUSTRIES COVERED

Industry Involved	Number [5]
Financial institutions and products	10 - 13
Industrial and commercial machinery	7 - 9
Food, beverages, and related products	7 - 9
Transportation equipment	7 - 9
Consumer electronics, not including computers	4 - 6
Computer hardware, components, and related products, and computer software	4 - 6
Photographic equipment and supplies	1 - 3
Chemicals and related products (industrial, pharmaceutical, cosmetics)	1 - 3
Transportation services	1 - 3
Petroleum refining and related industries	1 - 3
Hotel and related services	1 - 3
Electrical equipment and components (excluding computers and consumer electronics)	1 - 3
Information services	1 - 3
Construction services; construction, ground moving, and mining equipment	1 - 3
Mining	1 - 3
Measuring, analyzing, and controlling instruments	1 - 3
Jewelry, sporting equipment, and toys	1 - 3
Printing, publishing, and related industries	1 - 3
Metal industries and metal products (not machinery)	1 - 3
Engineering, research, consulting, accounting, management, legal, real estate, subscription, and related services	1 - 3
Telecommunications equipment, components, and services	1 - 3

Trades or Businesses

[§ 521(b)(2)(D)(i)]

The nature of the relationship between the related organizations, trades, or businesses covered by APAs executed in Year 2000 are set forth in Table 10 below:

[5] Several APAs listed in this table covered more than one industry.

TABLE 10: NATURE OF RELATIONSHIPS BETWEEN RELATED ENTITIES

Relationship	Number of APAs
Foreign Parent — U.S. Subsidiary (-ies)	39
U.S. Parent — Foreign Subsidiary (-ies)	16
Foreign Company and U.S. Branch	8
U.S. Company and Non-U.S. Branch	0
Partnership	0
U.S. Parent, U.S. Possessions subsidiary	0

Covered Transactions

[§ 521(b)(2)(D)(ii)]

The controlled transactions covered by APAs executed in Year 2000 are set forth in Table 11 and Table 12 below:

TABLE 11: TYPES OF COVERED TRANSACTIONS

Transaction Type	Number
Sale of tangible property into the U.S.	25
Use of intangible property by a U.S. entity	16
Performance of services by a U.S. entity	16
Performance of services by a Non- U.S. entity	12
Use of intangible property by a Non- U.S. entity	10
Sale of tangible property from the U.S.	8
Financial products – U.S. branch of foreign company	7
Financial products – U.S. parent company	4
Financial products – Non- U.S. parent company	3
Research & Development cost sharing – Non-U.S. parent company	3

TABLE 12: TYPES OF COVERED TRANSACTIONS – SERVICES

Intercompany Services Involved in the Covered Transactions	Number
Marketing and/or Distribution	12
Headquarters and Administrative Services	10
Management Services	5
Research and Development	5
Technical and Product Support Services	5
Warranty Services	4
Product Assembly	2
Communication Services	1
Purchasing	1
Other Services	2

Business Functions Performed and Risks Assumed

[§ 521(b)(2)(D)(ii)]

The general descriptions of the business functions performed and risks assumed by the organizations, trades, or businesses whose results are tested in the covered transactions in the APAs executed in Year 2000 are set forth in Tables 13 and 14 below:

TABLE 13: FUNCTIONS PERFORMED BY THE TESTED PARTY

Functions Performed	Number
Marketing and distribution functions	38
Manufacturing	23
Product assembly and/or packaging	23
Licensing of intangibles	23
Purchasing and materials management	21
Product testing and quality control	21
Research and development	20
Transportation and warehousing	19
Process engineering	17
Managerial, legal, accounting, finance, personnel, and other support services	17
Product design and engineering	16
Trading and risk management of financial products	15
Technical training and tech support for sales staff	13
Product service (repairs, etc.)	11
Consulting services	7
Other services	4

TABLE 14: RISKS ASSUMED BY THE TESTED PARTY

Risks Assumed	Number
Market risks, including fluctuations in costs, demand, pricing, and inventory	40
Financial risks, including interest rates and currency	32
General business risks (e.g., related to ownership of Property, Plant, and Equipment)	24
Credit and collection risks	18
Product liability risks	17
Research & Development risks	16

Discussion

The vast majority of APAs have covered transactions that involve numerous business functions and risks. For instance, with respect to functions, companies that manufacture products have typically conducted research and development, engaged in product design and engineering, manufactured the product, marketed and distributed the product, and performed support functions such as legal, finance, and human resources services. Regarding risks, companies have been subject to market risks, R&D risks, financial risks, credit and collection risks, product liability risks, and general business risks. In the APA evaluation process a significant amount of time and effort is devoted to understanding how the functions and risks are allocated amongst the controlled group of companies that are party to the covered transactions.

In their APA proposals taxpayers are required to provide a functional analysis. The functional analysis identifies the economic activities performed, the assets employed, the economic costs incurred, and the risks assumed by each of the controlled parties. The importance of the functional analysis derives from the fact that economic theory posits that there is a positive relationship between risk and expected return and that different functions provide different value and have different opportunity costs associated with them. It is important that the functional analysis go beyond simply categorizing the tested party as, say, a distributor. It should provide more specific information since, in the example of distributors, not all distributors undertake similar functions and risks.

Thus, the functional analysis has been critical in determining the TPM (including the selection of comparables). Although functional comparability has been an essential factor in evaluating the reliability of the TPM (including the selection of comparables), the APA evaluation process has also involved consideration of economic conditions such as the economic condition of the particular industry.

In evaluating the functional analysis, the APA program has considered contractual terms between the controlled parties and the consistency of the conduct of the parties with respect to the allocation of risk. Per the § 482 regulations, the APA program also has given consideration to the ability of controlled parties to fund losses that might be expected to occur as the result of the assumption of a risk. Another relevant factor considered in evaluating the functional analysis is the extent to which each controlled party exercises managerial or operational control over the business activities that directly influence the amount of income or loss realized. The § 482 Regulations posit that parties at arm's length will ordinarily bear a greater share of those risks over which they have relatively more control.

Related Organizations, Trades, or Businesses Whose Prices or Results are Tested to Determine Compliance with APA Transfer Pricing Methods

[§ 521(b)(2)(D)(iii)]

The related organizations, trades, or businesses whose prices or results are tested to determine compliance with TPMs prescribed in APAs executed in Year 2000 are set forth in Table 15 below:

TABLE 15: RELATED ORGANIZATIONS, TRADES, OR BUSINESSES WHOSE PRICES OR RESULTS ARE TESTED

Type of Organization	Number [6]
U.S. Distributor	26
U.S. Manufacturer	14
Non-U.S. Manufacturer	9
U.S. Provider of Services	8
U.S. Licensee of Intangible Property	8
Non-U.S. Distributor	7
Non-U.S. Provider of Services	7
U.S. Licensor of Intangible Property	6
Non-U.S. Licensee of Intangible Property	5
Non-U.S. Licensor of Intangible Property	4
Non-U.S. Dealer in Financial Products	3
U.S. Participant in Cost-Sharing Agreement	2
U.S. Dealer in Financial Products	2

[6] For purposes of this report, both sides are counted as tested parties for transactions involving the use of the Comparable Uncontrolled Price, Comparable Uncontrolled Transaction, and profit split methods, as well as for cost sharing agreements. There was no "tested party" counted for purposes of interbranch allocations in financial product cases (see Table 18).

Transfer Pricing Methods and the Circumstances Leading to the Use of Those Methods

[§ 521(b)(2)(D)(iv)]

The TPMs used in APAs executed in Year 2000 are set forth in Tables 16–20 below:

TABLE 16: TRANSFER PRICING METHODS USED FOR TRANSFERS OF TANGIBLE AND INTANGIBLE PROPERTY

TPM used	Number [7]
Comparable Uncontrolled Price (CUP) (tangible property only) – based on published market data	2
Comparable Uncontrolled Transaction (CUT) (intangible property only)	6
Resale Price Method (tangible property only)	3
Cost Plus Method (tangible property only)	2
Comparable Profits Method (CPM): PLI is return on assets or capital employed	4
Comparable Profits Method (CPM): PLI is operating margin	22
Comparable Profits Method (CPM): PLI is gross margin	1
Comparable Profits Method (CPM): PLI is Berry ratio	2
Comparable Profits Method (CPM): PLI is a markup on total costs	1
Comparable Profits Method (CPM) PLI is net margin	1
Residual Profit Split	5
Other Profit Split	3
Royalty	6

[7] Profit Level Indicators ("PLIs") used with the Comparable Profit Method of Treas. Reg. § 1.482-5, and as used in these TPM tables, are as follows: (1) rate of return on assets or capital employed is the ratio of operating profit to operating assets, (2) operating margin is the ratio of operating profit to sales, (3) gross margin is the ratio of gross profit to sales, (4) Berry ratio is the ratio of gross profit to operating expenses, (5) markup on total costs is generally a comparative markup on total costs involved, (6) SG&A to sales refers to the ratio of the costs of sales, general, and administrative expenses to sales, and (7) net margin is the ratio of net (before tax) profit over sales.

TABLE 17: TRANSFER PRICING METHODS USED FOR SERVICES

TPM used	Number [8]
Cost Plus Method	9
Cost Method	3
Comparable Profits Method: PLI is SG&A to Sales ratio	2
Comparable Profits Method: PLI is return on assets or capital employed	2
Comparable Profits Method: PLI is a markup on total costs	1
Comparable Profits Method: PLI is operating margin	1
Comparable Uncontrolled Transaction Method	1
Other Method	3

TABLE 18: TRANSFER PRICING METHODS USED FOR FINANCIAL PRODUCTS

TPM used	Number [9]
Interbranch allocation (e.g., foreign exchange separate enterprise)	8
Residual profit split	5
Profit split under Notice 94-40	2

TABLE 19: TRANSFER PRICING METHODS USED FOR CONTRIBUTIONS TO COST SHARING ARRANGEMENTS

TPM used	Number [10]
Costs allocated based on sales	3
Costs allocated based on total costs of R&D, manufacturing, and distribution	1

[8] Some of the service transactions were covered by the transfer pricing methods used in cost sharing arrangements and tangible/intangible property transactions.

[9] Some of the financial product APAs used more than one TPM.

[10] One of the cost sharing APAs involved two TPMs.

TABLE 20: TRANSFER PRICING METHODS USED FOR COST SHARING BUY-IN PAYMENTS

TPM used	Number
Capitalized R&D	1
Other	2

Discussion

The transfer pricing methods used in APAs completed during Year 2000 were based on those in the § 482 Treasury Regulations. Under § 1.482-3, the arm's length amount for controlled transfers of tangible property are determined using the Comparable Uncontrolled Price (CUP) method, the Resale Price Method, the Cost Plus Method, the Comparable Profits Method (CPM), and the Profit Split method. Under § 1.482-4, the arm's length amount for controlled transfers of intangible property are determined using the Comparable Uncontrolled Transaction (CUT) method, CPM, and the Profit Split Method. An "Unspecified Method" may be used for both tangible and intangible property if it provides a more reliable result than the enumerated methods under the best method rule of § 1.482-1(c). For transfers involving the provision of services, § 1.482-2(b) provides that services performed for the benefit of another member of a controlled group should ordinarily bear an arm's length charge, either deemed to be equal to the cost of providing the services (when non-integral) or which should be an amount that would have been charged between independent parties.

In addition, § 1.482-2(a) provides rules concerning the proper treatment of loans or advances, and § 1.482-7 provides rules for qualified cost sharing arrangements under which the parties agree to share the costs of development of intangibles in proportion to their shares of reasonably anticipated benefits. APAs involving cost sharing arrangements generally address both the method of allocating costs among the parties as well as determining the appropriate amount of the "buy-in" payment due for the transfer of intangibles to the controlled participants.

In reviewing the TPMs applicable to transfers of tangible and intangible property reflected in Table 16, it is clear that the majority of the APAs followed the specified methods. However, there are several distinguishing points that should be made. The Regulations note that for transfers of tangible property, the Comparable Uncontrolled Price (CUP) method will generally be the most direct and reliable measure of an arm's length price for the controlled transaction when sufficiently reliable comparable transactions can be identified. § 1.482-3(b)(2)(ii)(A). It was the experience of the APA Program in Year 2000 that in the cases that come into the APA Program, sufficiently reliable CUP transactions are difficult to find. In APAs executed in Year 2000, there were only two APAs that used the CUP method, and they both looked to published market data in setting the arm's length price. See § 1.482-3(b)(5).

Similar to the CUP method, for transfers of intangible property, the CUT method will generally provide the most reliable measure of an arm's length result when sufficiently reliable comparables may be found. § 1.482-4(c)(2)(ii). It has generally been difficult to identify external comparables, and APAs using the CUT method tend to rely on internal transactions between the taxpayer and unrelated parties. In Year 2000, there were six APAs that utilized the CUT method, and four of those also used one or more other methods for different covered transactions by the same taxpayer in the same APA.

Some cases in the past have utilized a "step royalty" arrangement to determine the proper transfer price for use of a unique intangible. For example, taxpayers have argued that an intangible was very valuable and therefore a high royalty rate was appropriate. Because there were no exact or closely similar comparables, it was difficult to demonstrate objectively whether the taxpayer was correct. A sliding scale, or step royalty, in conjunction with a CPM analysis, has been used to resolve such cases. The premise of such APAs was that, if the intangible truly had great value, the taxpayer would earn higher than normal return from its activities utilizing the intangible. Conversely, as the value of the intangible decreased, the taxpayer's pre-royalty results would be in the routine arm's-length range. Therefore, the royalty rate adopted in these APAs increases as the licensee's profitability increases.

The Cost Plus Method and Resale Price Method were applied in Year 2000 in two and three APAs respectively. See § 1.482-3(c), (d). The transactional nature of these methods distinguishes them from the CPM method using either a gross margin PLI (as compared to the Resale Price Method) or a markup on total costs PLI (as compared to the Cost Plus Method). A strict transactional method focuses on prices for individual or narrow groups of transactions, while a CPM looks at profits from broader groups of transactions or all of a company's transactions. In Year 2000, only one of the Resale Price Method APAs used only that method alone. The four other APAs using these methods all were supplemented by a CPM.

The CPM is frequently applied in APAs. This is because reliable public data on comparable business activities of independent companies may be more readily available than potential CUP data, and comparability of resources employed, functions, risks, and other relevant considerations is more likely to exist than comparability of product. The CPM also tends to be less sensitive than other methods to differences in accounting practices between the tested party and comparable companies, e.g. classification of expenses as cost of goods sold or operating expenses. §1.482-3(c)(3)(iii)(B), and -3(d)(3)(iii)(B). In addition, the degree of functional comparability required to obtain a reliable result under the CPM is generally less than required under the resale price or cost plus methods, because differences in functions performed often are reflected in operating expenses, and thus taxpayers performing different functions may have very different gross profit margins but earn similar levels of operating profit. § 1.482-5(c)(2).

There were 31 APAs involving tangible or intangible property that used some form of the CPM (with varying PLIs). The CPM was also used in some APAs concurrently with other methods. For example, in the eight APAs involving the use of a profit split method, the CPM was used in five of them to measure routine returns or other discreet parts of the covered transactions. The CPM similarly was used with two out of the three APAs that used the resale price method, including one of those three that used the resale price method, the cost plus method, and the CPM. The CPM was used with two out of the six APAs that used the CUT method. Finally, in two APAs the royalty payments were tested according to a CPM with an operating margin PLI, and were subject to adjustment based on the taxpayer's results compared to the CPM range.

The CPM has proven to be versatile in part because of the various PLIs that can be used in connection with the method. Reaching agreement on the appropriate PLI has been the subject of much discussion in many of the cases, and it depends heavily on the facts and circumstances. Some APAs have called for different PLIs to apply to different parts of the covered transactions or with one PLI used as a check against the primary PLI. In three APAs, an operating margin PLI was used in conjunction with other PLIs (rate of return on assets or capital employed in two and a gross margin in one). In one APA, a Berry ratio[11] was used to measure the distribution function, while a markup on total costs was used for the manufacturing function. There was one APA that used a gross margin PLI, but also employed an operating margin PLI in a critical assumption.

The CPM also was used regularly with services as the covered transactions in APAs executed in Year 2000. There were a total of six service APAs using the CPM method with various PLIs according to the specific facts of the taxpayers involved. Two APAs used a SG&A to sales PLI, and did not combine these methods with any others (services being the only covered transactions). Both of these also allocated various overhead expenses based on a percentage of worldwide sales by geographic region. In addition, and similar to the overlap of PLIs with tangible and intangible property, one APA involving services used separate PLIs for different U.S. subsidiaries of the foreign parent (return on assets or capital employed and operating margin). Table 17 reflects the methods used to determine the arm's length results for APAs involving services transactions.

In Year 2000, there were eight APAs involving tangible or intangible property that used some form of a profit split, primarily the Residual Profit Split, § 1.482-6(c)(3), in which routine contributions by the controlled parties are allocated routine market returns, and the residual income is allocated among the controlled taxpayers based upon the relative value of their contributions of intangible property to the relevant business activity. Profit splits are generally considered in cases in which the parties to the controlled transaction own valuable, non-routine, intangible property. Of the eight profit split APAs, none of them involved the use of the Comparable Profit Split under § 1.482-6(c)(2). Five APAs made use of a Residual Profit Split method. One APA used an unspecified method profit split based on the proportion of each country's total manufacturing, research and development, and distribution costs. See § 1.482-4(d) (unspecified methods for transfers of intangible property). Another APA used a profit split in which only the U.S. taxpayer's income was split at a ratio of 25% to the U.S. subsidiary and 75% to the foreign parent (the APA also used a CPM with an operating margin PLI, and involved royalty payments by the U.S. taxpayer). Lastly, one APA used a profit split based on a range developed with the use of a CPM with an operating margin PLI. This APA also required the taxpayer to annually update the data set of comparable companies.

[11] Named after Professor Charles Berry, who used the Berry ratio when serving as an expert witness in *E.I. DuPont de Nemours & Co. v. United States*, 608 F.2d 445 (Ct. Cl. 1979).

Profit splits have also been used in a number of financial product APAs in which the primary income-producing functions are performed in more than one jurisdiction. Two APAs executed in Year 2000 applied a profit split as described in Notice 94-40. Five APAs applied Residual Profit Splits as described in Prop. Reg. § 1.482-8(e)(6).

There were eight financial product APAs involving interbranch allocations. These involve a single taxpayer with branches that act autonomously with respect to the covered transactions, generally involving foreign currency exchanges. These particular APAs determine the appropriate amount of profits attributable to each branch from the activity by reference to the branches' internal accounting methods. The results take into account all trades, and test the arms length results using statistical tests to ensure that all controlled trades are priced the same as uncontrolled trades.

There were three cost sharing APAs during Year 2000. Cost sharing APAs under § 1.482-7 generally address the methods used for determining each participant's share of costs (consistent with the reasonably anticipated benefits) for the development of intangibles. When there is also the transfer of existing intangibles, the APA will also generally address the appropriate buy-in amount. Tables 19 and 20 reflect the methods applied in cost sharing APAs executed in Year 2000.

Critical Assumptions

[§ 521(b)(2)(D)(v)]

Critical Assumptions used in APAs executed in Year 2000 are described in Table 21 below:

TABLE 21: CRITICAL ASSUMPTIONS

Critical Assumptions involving the following:	Number of APAs
Material changes to the business	59
Material changes to tax and/or financial accounting practices	45
Changes in affiliated companies	18
Use of Mark-to-Market method	13
Assets will remain substantial the same	5
Major technological changes	5
Cost sharing and licensing agreements remain in effect	4
Catastrophic events	4
Currency fluctuations	4
Risks assumed and functions performed remain the same	3
Minimum sales volume	3
Material sales fluctuations	3
Changes in market shares	3

Change in market pricing policies	3
Change in ratio of SG&A to sales	2
Changes in sharing of risks of currency fluctuations	2
Marketing conditions remain substantially the same	2
Major regulatory changes	2
Change in compensation policy that affects the covered entity or transaction	2
Changes in sharing of risks of currency fluctuations	2
Limitation on R&D expenditures	2
Litigation hazards	2
Changes in the interest rate	1
Variation in budgeted versus actual expense	1
Changes involving antidumping/countervailing duties	1
Changes in other duties or tariffs	1
New import/export non-tariff barriers	1
Changes in ratio of R&D to sales	1
Renewal of the APA	1

Discussion

APAs include critical assumptions upon which their respective TPMs depend. Critical assumptions are objective business and economic criteria that form the basis of a taxpayer's proposed TPM. A critical assumption is any fact (whether or not within the control of the taxpayer) related to the taxpayer, a third party, an industry, or business and economic conditions, the continued existence of which is material to the taxpayer's proposed TPM. Critical assumptions might include, for example, a particular mode of conducting business operations, a particular corporate or business structure, or a range of expected business volume. Rev. Proc. 96-53, § 5.07. Failure to meet a critical assumption may render an APA inappropriate or unworkable.

A critical assumption may change (and/or fail to materialize) due to uncontrollable changes in economic circumstances, such as a fundamental and dramatic change in the economic conditions of a particular industry. In addition, a critical assumption may change (and/or fail to materialize) due to a taxpayer's actions that are initiated for good faith business reasons, such as a change in business strategy, mode of conducting operations, or the cessation or transfer of a business segment or entity covered by the APA.

If a critical assumption has not been met, the APA may be revised by agreement of the parties. If such agreement cannot be achieved, the APA may be canceled. If a critical assumption has not been met, it requires taxpayer's notice to and discussion with the Service, and possible Competent Authority activity. Rev. Proc. 96-53, § 11.07.

Critical assumption provisions are crucial to the APA because a TPM is premised on certain assumptions that apply to a particular taxpayer, its industry, and the dynamics of the economy. Critical assumptions provide flexibility in an APA by recognizing the reality of change in business cycles and economic circumstances and their effects on varying arm's length returns. Whether critical assumptions change (and/or fail to materialize) is subject to the examination process.

Sources of Comparables, Selection Criteria, and the Nature of Adjustments to Comparables and Tested Parties

[§ 521(b)(2)(D)(v), (vi), and (vii)]

The sources of comparables, selection criteria, and rationale used in determining the selection criteria for APAs executed in Year 2000 are described in Tables 22 through 24 below. Various formulas for making adjustments to comparables are included as Attachment B.

TABLE 22: SOURCES OF COMPARABLES

Comparable Sources	Number of Times This Source Used [12]
Compustat (database)[13]	29
Disclosure (database)[14]	8
Moody's (database)[15]	4
Global Vantage (database)[16]	3
Worldscope (database)[17]	1
Global Researcher's SEC (database)[18]	1
Public exchange or quotation media	1
Other sources	7

[12] Although still guided by the arm's length standard, some APAs do not use comparables, for example, when there is a residual profit split or in the case of certain financial products.

[13] See http://www.compustat.com.

[14] See http://www.primark.com/pfid/content/disclosure.shtml.

[15] See http://www.fisonline.com.

[16] See http://www.standardpoor.com.

[17] See http://www.bvdep.com.

[18] See http://www.bvdep.com

TABLE 23: COMPARABLE SELECTION CRITERIA

Selection Criteria Considered	Number of Times This Criterion Used
Comparable functions	39
Comparable risks	30
Comparable industry	32
Comparable products	27
Comparable intangibles	17
Comparable geographic market	9
Contractual terms	4
Comparable market levels	2

TABLE 24: ADJUSTMENTS TO COMPARABLES OR TESTED PARTIES

Adjustment	Number of Times This Adjustment Used
Asset Intensity: receivables	24
Asset Intensity: payables	24
Asset Intensity: inventory	23
Asset Intensity: property, plant, equipment	9
Accounting: LIFO to FIFO inventory	7
Accounting: reclassification of expenses (e.g., from COGS to operating expenses)	2
Accounting: reclassification of non-operating intangibles	1
PLI: operating expense	3
R&D adjustments	2
Foreign exchange	1
Commission expense adjustment to tested party	1

Discussion

At the core of most APAs are comparables. The APA program works closely with taxpayers to find the best and most reliable comparables for each covered transaction. In some cases, CUPs or CUTs can be identified. In other cases, comparable business activities of independent companies are utilized in applying the CPM or residual profit split methods. Generally, in the APA Program's experience since 1991, CUPs and CUTs have been most often derived from the internal transactions of the taxpayer.

For profit-based methods in which comparable business activities or functions of independent companies are sought, the APA Program typically has applied a three-part process. First, a pool of potential comparables has been identified through broad searches. From this pool, companies having transactions that are clearly not comparable to those of the tested party have been eliminated through the use of quantitative and qualitative analyses, i.e., quantitative screens and business descriptions. Then, based on a review of available descriptive and financial data, a set of comparable companies or transactions has been finalized. The comparability of the finalized set has then been enhanced through the application of adjustments.

Sources of Comparables

Comparables used in APAs can be U.S. or foreign companies. This depends on the relevant market, the type of transaction being evaluated, and the results of the functional and risk analyses. In general, comparables have been located by searching a variety of databases that provide data on U.S. publicly-traded companies and on a combination of public and private non-U.S. companies. Table 22 shows the various databases and other sources used in selecting comparables for the APAs executed in Year 2000.

Although comparables were most often identified from the databases cited in Table 22, in some cases comparables were found from other sources. For example, comparables derived internally from taxpayer transactions with third parties, those provided by the taxpayer's representative using an in-house database, comparables from trade publications in specific industries, and comparables derived from taxpayer information on competitors.

Selecting Comparables

Initial pools of potential comparables generally have been derived from the databases using a combination of industry and keyword identifiers. Then, the pool has been refined using a variety of selection criteria specific to the transaction or entity being tested and the transfer pricing method being used.

The listed databases allow for searches by industrial classification (generally, U.S. Standard Industrial Classification (SIC)), by keywords, or by both. These searches can yield a number of companies whose business activities may or may not be comparable to those of the entity being tested. Therefore, comparables based solely on SIC or keyword searches are rarely used in APAs. Instead, the pool of comparables is examined closely, and companies are selected based on a combination of screens, business descriptions, and other information found in the companies' Annual Reports to shareholders and filings with the U.S. Securities and Exchange Commission (SEC).

In virtually all cases, business activities are required to meet certain basic comparability criteria to be considered comparables. Functions, risks, economic conditions, and the property (product or intangible) and services associated with the transaction must be comparable. Determining comparability can be difficult – the goal has been to use comparability criteria restrictive enough to eliminate companies that are not comparable, but yet not so restrictive as to have no comparables remaining. The APA Program normally has begun with relatively strict comparability criteria and then has relaxed them slightly if necessary to derive a pool of reliable comparables. A determination on the appropriate size of the comparables set, as well as the companies that comprise the set, is highly fact specific and depends on the reliability of the results.

In addition, the APA Program, consistent with the regulations, generally has looked at the results of comparable companies over a multi-year period. Sometimes this has been three years, but it has been more or less, depending on the circumstances of the controlled transaction. Using a shorter period might result in the inclusion of companies in different stages of economic development or use of atypical years of a company subject to cyclical fluctuations in business conditions. Of the APAs executed in Year 2000 in which financial data over a period of years was used, 5 APAs looked at data over 1 year, 28 looked at data over 3 years, 1 looked at data over a period of 5 years, 1 over 6 years, and 2 over 7 years.

Many covered transactions have been tested with comparables that have been chosen using additional criteria and/or screens. These include sales level criteria and tests for financial distress and product comparability. These common selection criteria and screens have been used to increase the overall comparability of a group of companies and as a basis for further research. The sales level screen, for example, has been used to remove companies that, due to their size, might face fundamentally different economic conditions from those of the entity or transaction being tested. In addition, some APA analyses have incorporated selection criteria related to removing companies experiencing "financial distress" due to concerns that companies in financial distress often have experienced unusual circumstances that would render them not comparable to the entity being tested. These criteria include: an unfavorable auditor's opinion, bankruptcy, and in certain circumstances, operating losses in a given number of years.

An additional important class of selection criteria is the development and ownership of intangible property. In some cases in which the entity being tested is a manufacturer, several criteria have been used to ensure, for example, that if the controlled entity does not own significant manufacturing intangibles or conduct research and development (R&D), neither will the comparables. These selection criteria have included determining the importance of patents to a company or screening for R&D expenditures as a percentage of sales or costs. Another criterion used in some cases has been a comparison of the book and market values of a company; this can be another indicator of intangible value. Again, quantitative screens related to identifying comparables with significant intangible property generally have been used in conjunction with an understanding of the comparable derived from publicly available business information.

Selection criteria relating to asset comparability and operating expense comparability have also been used at times. A screen of property, plant, and equipment (PP&E) as a percentage of sales or assets, combined with a reading of a company's SEC filings, has been used to help ensure that distributors (generally lower PP&E) were not compared with manufacturers (generally higher PP&E), regardless of their SIC classification. Similarly, a test involving the ratio of operating expenses to sales or total costs has helped to determine whether a company undertakes a significant marketing and distribution function.

Table 25 shows the number of times various screens were used in APAs executed in Year 2000:

TABLE 25: COMPARABILITY SCREENS

Comparability Screen Used	**Number of Times Used**
Sales	18
Ratio of R&D/Sales	12
Non-Startup or Startup Company	7
Ratio of Foreign Sales/Total Sales	6
Ratio of Operating Expenses/Sales	5
Ratio of PP&E/Sales	2
Financial Distress Screens	**—**
Bankruptcy	7
Unfavorable Auditor's Opinion	4
Losses in One or More Years	7

Adjusting Comparables

After the comparables have been selected, the regulations require that "[i]f there are material differences between the controlled and uncontrolled transactions, adjustments must be made if the effect of such differences on prices or profits can be ascertained with sufficient accuracy to improve the reliability of the results." Treas. Reg. §1.482-1(d)(2). In almost all cases involving income-statement-based profit level indicators (PLIs), certain "asset intensity" or "balance sheet" adjustments for factors that have generally agreed-upon effects on profits have been carried out. In addition, in specific cases, additional adjustments have been performed to improve reliability.

The most common asset intensity adjustments used in APAs are adjustments for differences in accounts receivable, inventories, and accounts payable. The APA Program generally has required adjustments for receivables, inventory, and payables based on the principle that holding assets such as receivables benefits customers in a way that increases the entity's operating profit. Such adjustments are based on the assumption that the increase in operating profit is equal to the carrying cost of the assets. Conversely, the holding of accounts payable is considered to burden suppliers in a way that decreases the entity's profit. The decrease in operating profit has generally been assumed to be equal to the cost of funds implicitly borrowed from suppliers.

To compare the profits of two entities with different relative levels of receivables, inventory, or payables, the APA Program has estimated the carrying costs of each item and adjusted profits accordingly. Although different formulas have been used in specific APA cases, Attachment B presents one set of formulas used in many APAs. Underlying these formulas are the notions that (1) balance sheet items should be expressed as mid-year averages, (2) formulas should try to avoid using data items that are being tested by the transfer pricing method (for example, if sales are controlled, then the denominator of the balance sheet ratio should not be sales), (3) a short term interest rate should be used, and (4) an interest factor should recognize the average holding period of the relevant asset.

The APA Program has also required that data must be compared on a first-in first-out (FIFO) accounting basis. Although financial statements may be prepared on a last-in first-out (LIFO) basis, cross-company comparisons are less meaningful when one or more companies use LIFO inventory accounting methods. This adjustment directly affects costs of goods sold and inventories, and therefore affects both profitability measures and inventory adjustments.

Less commonly used but still important in some cases is the adjustment for differences in relative levels of PP&E between a tested entity and the comparables. Ideally, comparables and the entity being tested will have fairly similar relative levels of PP&E, since major differences can be a sign of fundamentally different functions and risks. Typically, the PP&E adjustment is made using a medium term interest rate, while short term interest rates are used for receivables, inventories, and payables.

Additional adjustments used less infrequently include those for differences in other balance sheet items, operating expenses, R&D, or currency risk. Accounting adjustments, such as reclassifying items from cost of goods sold to operating expenses, for example, have also been made when warranted to increase reliability. Often, data has not been available for both the controlled and uncontrolled transactions in sufficient detail to allow for these types of adjustments.

The adjustments made to comparables or tested parties in APAs executed in Year 2000 are reflected in Table 24 above.

Nature of Ranges and Adjustment Mechanisms

[§ 521(b)(2)(D)(viii)–(ix)]

The types of ranges used in APAs executed in Year 2000 are described in Table 26 and 27 below.

TABLE 26: TYPES OF RANGES

Type of Range	Number [19]
Interquartile range	14
Floor (i.e., result must be no less than x)	14
Financial products – statistical confidence interval to test for internal CUP	8
Specific result ("point")	7
Agreed range	4
Ceiling (i.e., result must be no more than x)	2

TABLE 27: ADJUSTMENTS WHEN OUTSIDE OF THE RANGE

Adjustment mechanism	Number
Taxpayer makes an adjustment to the closest edge of the range	24
Taxpayer makes an adjustment to a specific point	17
Competent Authority process invoked if results are outside the range	4
Taxpayer makes an adjustment to the median of the range	3
APA canceled or revoked if results are outside the range, subject to renegotiation, cancellation, or revocation	2
APA canceled or revoked if results beyond certain limits, otherwise taxpayer makes an adjustment to the closest edge	1
Taxpayer adjusts to specific point each year (annual comparables adjustment)	1

Discussion

Treas. Reg. § 1.482-1(e)(1*)* states that sometimes a pricing method will yield "a single result that is the most reliable measure of an arm's length result." Sometimes, however, a method may yield "a range of reliable results," called the "arm's length range." A taxpayer whose results fall within the arm's length range will not be subject to adjustment.

Under § 1.482-1(e)(2)(i), such a range is normally derived by considering a set of more than one comparable uncontrolled transaction of similar comparability and reliability. If these comparables are of very high quality, as defined in the Regulations, then under § 1.482-1(e)(2)(iii)(A), the arm's length range includes the results of all of the comparables (from the least to the greatest). However, the APA Program has only rarely identified cases meeting the requirements for the full range. There were no APAs executed in Year 2000 that used a full range. If the comparables are of lesser quality, then under § 1.482-1(e)(2)(iii)(B), "the reliability of the analysis must be increased, when it is possible to do so, by adjusting the range through application of a valid statistical method to the results of all of the uncontrolled comparables."

[19] This table does not include royalties, cost sharing agreements, and cost plus TPMs. In Year 2000, TPMs involving these methodologies did not use ranges.

One such method, the "interquartile range," is "ordinarily . . . acceptable," although a different statistical method "may be applied if it provides a more reliable measure." The "interquartile range" is defined as, roughly, the range from the 25th to the 75th percentile of the comparables' results. See § 1.482-1(e)(2)(iii)(C). The interquartile range was used 14 times in Year 2000.

A variant on the interquartile range involves a "Tukey filter," which is described as follows. First, the set of comparables is used to derive a standard interquartile range. Then the difference D between the top and bottom of the interquartile range is computed. Next, all comparables whose results are more than a certain multiple of D (often the multiple 1.5 is used) outside the interquartile range are discarded as "outliers." Finally, the reduced set of comparables (without the outliers) is used to compute a second interquartile range, which is then used as the arm's length range. The Tukey filter's primary purpose has been to eliminate companies that were so anomalous that they arguably should not have been included as comparables in the first place. In the past, this approach has only occasionally been used for APAs, and it was not used for any of the APAs executed in Year 2000.

In 7 APAs executed in Year 2000, the APA specified a single, specific result, or "point." Five of these involved profit splits in which the taxpayer's results for a given APA year under the TPM depended on the amount of system profit. Another of these specific result APAs involved a bilateral APA with a term encompassing entirely filed years. In the absence of any prospectivity, the Competent Authorities agreed on a particular result for each year. Finally, one APA involved a CPM in which the taxpayer agreed to a specific result. Some APAs specify not a point or a range, but a "floor" or a "ceiling." When a floor is used, the tested party's result must be greater than or equal to some particular value. When a ceiling is used, the tested party's result must be less than or equal to some particular value. Fourteen APAs executed in Year 2000 used a floor and 2 used a ceiling. Finally, 4 APAs used an agreed range other than interquartile range.

Some APAs involving financial products have employed a statistical confidence interval to compare pricing of a large set of controlled transactions with a comparable set of uncontrolled transactions. A statistical confidence interval is typically applied to a financial institution with autonomous branches in several countries. Pursuant to the business profits article of the applicable income tax treaties and Prop. Reg. § 1.482-8(b), APAs have been executed allowing the taxpayer to allocate profits between branches with reference to the branches' internal accounting methods, taking into account all trades, including interbranch and/or interdesk trades. In order for this method to provide a reliable result, however, it is necessary to ensure that all such controlled trades be priced on the same market basis as uncontrolled trades. To test whether this is so, a branch's controlled trades are matched with that branch's comparable uncontrolled trades made at times close to the controlled trades. A statistical test is performed to detect pricing bias, by which the controlled trades might as a whole be priced higher or lower than the uncontrolled trades. This has been accomplished by construction of a statistical confidence interval (typically 95%), with the tested hypothesis being that controlled trades are priced on the same basis as uncontrolled trades. An adjustment is necessary if the results of the controlled trades fall outside of this confidence interval. During Year 2000, there were 8 APAs executed that employed the statistical confidence interval.

Adjustments

Under § 1.482-1(e)(3), if a taxpayer's results fall outside the arm's length range, the Service may adjust the result "to any point within the arm's length range." Accordingly, an APA may permit or require a taxpayer and its related parties to make an adjustment after the year's end to put the year's results within the range, or at the point, specified by the APA. Similarly, to enforce the terms of an APA, the Service may make such an adjustment. When the APA specifies a range, the adjustment is sometimes to the closest edge of the range, and sometimes to another point such as the median of the interquartile range. Depending on the facts of each case, such automatic adjustments are not always permitted. Some APAs specify that if a taxpayer's results fall outside the applicable point or range, the APA will be canceled or revoked. Some bilateral APAs specify that in such a case there will be a negotiation between the Competent Authorities involved to determine whether and to what extent an adjustment should be made. Some APAs permit automatic adjustments unless the result is far outside the range specified in the APA. Thus they provide flexibility and efficiency (permitting adjustments when normal business fluctuations and uncertainties push the result somewhat outside the range).

In order to conform the taxpayer's books to these tax adjustments, the APA usually permits a "compensating adjustment" as long as certain requirements are met. Such compensating adjustments may be paid between the related parties with no interest, and the amount transferred will not be considered for purposes of penalties for failure to pay estimated tax. See § 11.02 Rev. Proc. 96-53.

APA Term and Rollback Lengths

[§ 521(b)(2)(D)(x)]

The various term lengths for APAs executed in Year 2000 are set forth in Table 28 below:

TABLE 28: TERMS OF APAS

APA Term in Years	Number of APAs
1	2
2	3
3	7
4	6
5	37
6	4
7	0
8	1
9	0
10 or more	3

Number of rollback years to which an APA TPM was applied in Year 2000 are set forth in Table 29 below:

TABLE 29: NUMBER OF YEARS COVERED BY ROLLBACK OF APA TPM

Number of Rollback Years	Number of APAs
1	2
2	6
3	3
4	1
5	2
6	1
7	2
8	0
9	1
10 or more	1

Nature of Documentation Required

[§ 521(b)(2)(D)(xi)]

APAs executed in Year 2000 required various that documents be provided with the Annual Reports filed by the taxpayers. These documents are described in Table 30 below:

TABLE 30: NATURE OF DOCUMENTATION REQUIRED

Documentation	Number of Times This[20] Documentation Required
Financial analysis demonstrating compliance with the TPM	60
Statement identifying all material differences between the taxpayer's business operations during the APA year and the description of the business operations contained in the request for the APA, and if there have been no such material differences, a statement to that effect	61
Statement identifying all material changes in the taxpayer's accounting methods and classifications, and methods of estimations, from those described or used in the request for the APA, or if there have been none, a statement to that effect	62
Description of any failure to meet critical assumptions, or if there have been none, a statement to that effect	62
Financial statements as prepared in accordance with GAAP	59
Certified Public Accountant's opinion that the financial statements present fairly the financial position of the taxpayer and the results of its operations, in accordance with GAAP	59
Description of, reason for, and financial analysis of an compensating adjustments with respect to any APA year, including the means by which any compensating adjustment has been or will be satisfied	58
Profit and Loss statement	29
Various workpapers	27
United States income tax return	19
Schedule of costs and expenses (e.g., intercompany allocations)	17
Certified Public Accountant's review of financial statements	11
Narrative description of the taxpayer's business	8
Book to tax reconciliation	7
Cash flow statement	6
Description of any matters economically or substantively related to the covered transactions, but that are not subject to the APA	5
Form 5471 or 5472	4
Organizational chart	4
Pertinent intercompany agreements	5
Royalty computations	2

[20] The first seven categories of documentation listed in this table are drawn from the standard APA language found in Attachment A. Certain APAs did not include this standard language, typically when all of the years covered by the APA were already past and the taxpayer's results were known. In addition, under some financial product APAs, the taxpayer agrees to maintain certain records, but the compliance with the TPM is determined by a later audit under an agreed statistical methodology. In these cases, a number of the standard documentation requirements may not be appropriate.

R&D costs as a percentage of WW sales	2
Various other documents or statements[21]	33

Approaches for Sharing of Currency or Other Risks

[§ 521(b)(2)(D)(xii)]

During Year 2000, there were three APAs that specifically addressed the sharing of currency risks. In one, there was an adjustment to the tested party's cost of goods sold if the exchange rate changed by more than a certain amount, in which case the adjustment was a percentage of the change in the exchange rate. In a second APA, there was an adjustment for currency fluctuations through a change in the operating margin range. Finally, in a third all currency risk was specifically allocated to the foreign parent.

Other explicit risk sharing in APAs completed in Year 2000 included one APA in which it was provided that if the U.S. licensor's worldwide ratio of research and development expenses to sales changed, the royalty paid by the foreign subsidiary to the U.S. parent changed too. In another, all risks were specifically allocated to the foreign parent, and in a third, the market and inventory risk on all tangibles purchased from the foreign parent were assumed by the U.S. subsidiary.

In addition, there were three APAs that specifically addressed the risks of a business start-up. The first provided that the risk of start-up losses was allocated to the foreign parent. The second allowed for the start-up businesses to have a three year phase-in, and the third APA allowed for losses during the startup phase.

Efforts to Ensure Compliance with APAs

[§ 521(b)(2)(F)]

As described in Rev. Proc. 96-53, section 11, APA taxpayers are required to file annual reports to demonstrate compliance with the terms and conditions of the APA. The filing and review of annual reports is a critical part of the APA process. Through annual report review, the APA program monitors taxpayer compliance with the APA on a contemporaneous basis. Annual report review provides current information on the success or problems associated with the various TPMs adopted in the APA process.

All reports received by the APA Office are tracked by one designated APA team leader who also has the prime responsibility for annual report review. Other APA team leaders also assist in this review, especially when the team leader who negotiated the case is available, since that person will already be familiar with the relevant facts and terms of the agreement. Once received by the APA Office, the annual report is sent out to the district personnel with exam jurisdiction over the

[21] This category includes particular documents that were highly fact specific to the particular taxpayer involved.

taxpayer. This process changed in November 2000; previously reports were held until reviewed by an APA team leader. This change has facilitated simultaneous review of the reports and sped up processing time.

The statistics for the review of APA annual reports are reflected in Table 31 below. As of December 31, 2000, there were 374 pending annual reports. In Year 2000, there were 118 reports closed. This is up considerably from the 211 reports closed in the 1994-1999 period. As noted below, annual report review in 2000 resulted in agreed adjustments involving 8 taxpayers for 38 APAs.

TABLE 31: STATISTICS OF ANNUAL REPORTS

Number of APA annual reports pending as of December 31, 2000	374
Number of APA annual reports closed in Year 2000	118
Number of APA annual reports requiring adjustment in Year 2000	38
Number of taxpayers involved in adjustments	8
Number of APA annual reports required to be filed in Year 2000	273
Number of APA annual reports actually filed in Year 2000	239[22]
Number of APA annual report cases over one and less than two years old	197
Number of APA annual report cases two or more years old	89

[22] Of the 34 reports that were due in Year 2000, but not filed by Dec. 31, 2000, there were 28 filed late after January 1, 2001.

ATTACHMENT A

MODEL ADVANCE PRICING AGREEMENT

between

TAXPAYER

and

THE INTERNAL REVENUE SERVICE

THIS ADVANCE PRICING AGREEMENT ("APA") is made by and between Taxpayer and the Internal Revenue Service ("Service"), acting through the Director, Advance Pricing Agreement Program.

WHEREAS, Taxpayer and the Service (the "Parties") wish to establish a method for determining whether certain prices used in international transactions involving Taxpayer are in accordance with the principles of section 482 of the Internal Revenue Code of 1986 as amended (the "Code") and attendant Regulations and, to the extent applicable, income tax conventions to which the United States is a party;

NOW, THEREFORE, in consideration of the mutual promises contained herein, the Parties agree as follows:

1. Identifying information. Taxpayer's EIN is __________. [Taxpayer is included in the consolidated federal income tax return filed by ________________, EIN ________. All

references to Taxpayer's United States income tax return in this APA refer to that consolidated return, and all references in this APA to "Taxpayer" shall refer to the ______________ consolidated return group.]

2. Covered transactions. This APA governs the pricing of the transactions specified in Appendix A (the "Covered Transactions").

3. Legal Effect.

3.1. Taxpayer agrees to comply with the terms and conditions of this APA, including the transfer pricing methodology ("TPM") that is described in Appendix A. If Taxpayer complies with the terms and conditions of this APA, then the Service will not contest the application of the TPM to the Covered Transactions and will not make or propose any reallocation or adjustment under section 482 of the Code with respect to Taxpayer concerning the transfer prices in Covered Transactions for the years covered by this APA (the "APA Years").

3.2. Regardless of the date on which Taxpayer filed its request for this APA, Taxpayer and the Service agree, unless otherwise specified to the contrary in this APA, that Rev. Proc. 96-53, 1996-2 C.B. 375, and not any predecessor to Rev. Proc. 96-53, governs the interpretation, administration, and legal effect of this APA.

3.3. If, for any APA Year, Taxpayer does not comply with the terms and conditions of this APA, then the Service may:

i. enforce the terms of this APA and propose adjustments to the income, expenses, deductions, credits, or allowances reported on Taxpayer's U.S. federal income tax return in keeping with the terms of this APA;

ii. cancel or revoke this APA pursuant to section 11.05 or 11.06 of Rev. Proc. 96-53; or

iii. revise this APA, upon agreement on revision with Taxpayer.

3.4. This APA addresses the arm's length nature of prices charged or received in the aggregate between Taxpayer and [name of foreign group], and except as explicitly provided in this APA does not address, and does not bind the Service with respect to, prices charged or received, or the relative amounts of income or loss realized, by particular legal entities that are members of Taxpayer or that are members of [foreign group]. The true taxable income of a member of an affiliated group filing a U.S. consolidated return shall be determined under the regulations governing consolidated returns. <u>See</u>, <u>e.g.</u>, Treas. Reg. section 1.1502-12. Similarly, to the extent relevant for United States tax purposes, and except as explicitly provided in this APA, the relative amounts of income of different entities that are members of [foreign group] shall be determined under the arm's length standard of section 482 without reference to this APA.

3.5. The Parties agree that nonfactual oral and written representations, within the meaning of sections 10.04 and 10.05 of Rev. Proc. 96-53 (including any proposals to use particular TPMs), made in conjunction with this request constitute statements made in compromise negotiations within the meaning of Rule 408 of the Federal Rules of Evidence.

4. <u>Term</u>. This APA shall apply only to the APA Years, which shall include only ________________.

5. <u>Financial Statements and APA Records</u>. The determination whether Taxpayer has complied with this APA will be based on its United States income tax return; its financial statements as prepared in accordance with generally accepted accounting principles ("GAAP")

on a consistent basis (the "Financial Statements"); the additional records ("APA Records") specified in Appendix B; and all information specified in section 8 of this APA. Taxpayer will not be in compliance with the TPM unless an independent certified public accountant renders an opinion that the Financial Statements present fairly, in all material respects, the financial position of Taxpayer and the results of its operations, in accordance with GAAP. Taxpayer agrees to maintain the Financial Statements and APA Records and to make them available within thirty days of a request by the Service in connection with an examination described in section 11.03 of Rev. Proc. 96-53. Compliance with this section 5 of the APA will constitute compliance with the record maintenance provisions of sections 6038A and 6038C of the Code, with respect to Covered Transactions during the APA Years.

6. Critical Assumptions. The Critical Assumptions of this APA, within the meaning of section 5.07 of Rev. Proc. 96-53, are listed in Appendix C.

7. Tax and Compensating Adjustments. In the event Taxpayer's actual transactions did not result in compliance with the TPM described in Appendix A, Taxpayer's taxable income must nevertheless be reported in an amount consistent with the TPM and the requirements of the APA, either on a timely filed original return or on an amended return. Taxpayer may make Compensating Adjustments as described in and subject to the rules of section 11.02 of Rev. Proc. 96-53, and subject to any restrictions stated in this APA.

8. Annual Report. Taxpayer shall file a timely Annual Report for each APA Year pursuant to the rules of section 11.01 of Rev. Proc. 96-53. The Annual Report shall contain the information described in Appendix D. In connection with an examination described in section 11.03 of Rev. Proc. 96-53, the District Director may request and Taxpayer shall provide

additional facts, computations, data or information reasonably necessary to clarify the Annual Report or verify compliance with the APA.

9. Disclosure. This APA, and the information, data, and documents related to this APA and Taxpayer's APA request are: (1) considered return information pursuant to section 6103(b)(2)(C) of the Code; and (2) not subject to public inspection as a written determination pursuant to section 6110(b)(1) of the Code. Pursuant to section 521(b) of the Ticket to Work and Work Incentives Improvement Act of 1999, Pub. L. 106-170, however, the Secretary of the Treasury is obligated to prepare a report for public disclosure that would include certain specifically designated information concerning all APAs, including this APA, in such form as not to reveal taxpayers' identities, trade secrets, and proprietary or confidential business or financial information.

10. Disputes. Should a dispute arise concerning the interpretation of this APA, the Parties agree to seek resolution of the dispute by the Associate Chief Counsel (International), to the extent reasonably practicable, prior to seeking alternative remedies. Disputes not related to the interpretation of this APA shall be pursued consistent with section 11.03(4) of Rev. Proc. 96-53.

11. Section Captions. The section captions contained in this APA are for convenience and reference only and shall not affect in any way the interpretation or application of this APA.

12. Notice. Any notices required by this APA or Rev. Proc. 96-53 shall be in writing. Taxpayer shall send notices to the Service at the address and in the manner prescribed in section 5.13(2) of Rev. Proc. 96-53. The Service shall send notices to Taxpayer at

____________________________________.

13. Effective date. This APA shall become binding when both Parties have executed the APA [,and the competent authorities of ____________ and the United States have executed a mutual agreement that is consistent with this APA].

14. Counterparts. This APA may be executed in counterparts, with each counterpart deemed an original.

IN WITNESS WHEREOF, the Parties have executed this APA on the dates indicated below.

TAXPAYER

By:___________________________ Date:_________
[Name of Signature]
[Title]

INTERNAL REVENUE SERVICE

By:___________________________ Date:_________
[Name of Signature]
Director, Advance Pricing Agreement Program

APPENDIX A

TRANSFER PRICING METHODOLOGY

For each APA Year:

Covered Transactions.

The Covered Transactions for this APA consist of ____________________.

Transfer Pricing Methodology (“TPM”).

APPENDIX B

APA RECORDS

1. All documents listed in Appendix D for inclusion in the Annual Report, as well as all documents, notes, work papers, records, or other writings that support the information provided in such documents.
2. [Insert here other records.]

APPENDIX C

CRITICAL ASSUMPTIONS

1. The business activities, functions performed, risks assumed, assets employed, and financial [and tax] accounting methods and classifications [and methods of estimation] of Taxpayer shall remain materially the same as described or used in Taxpayer's request for this APA.
2. [Insert here other Critical Assumptions.]

APPENDIX D

ANNUAL REPORT

Taxpayer shall include the following in its Annual Report for each APA Year:

1. A statement identifying all material differences between Taxpayer's business operations (including functions performed, risks assumed and assets employed) during the APA Year and the description of the same contained in Taxpayer's request for this APA, or if there have been no such material differences a statement to that effect.
2. A statement identifying all material changes in Taxpayer's accounting methods and classifications [and methods of estimation] from those described or used in Taxpayer's request for this APA, or if there have been no such material changes a statement to that effect.
3. The Financial Statements.
4. A financial analysis demonstrating Taxpayer's compliance with the TPM.
5. A description of any failure to meet Critical Assumptions, or if there have been no such failures, a statement to that effect.
6. A description of the reason for, and financial analysis of, any Compensating Adjustments with respect to the APA Year, including the means by which any such Compensating Adjustment has been or will be satisfied.

7. A copy of the certified public accountant's opinion, described in section 5 of this APA, for the APA Year.

8. [Insert here other items to be included in Annual Report.]

ATTACHMENT B

FORMULAS FOR BALANCE SHEET ADJUSTMENTS

<u>Definitions of Variables:</u>

AP	=	average accounts payable
AR	=	average trade accounts receivable, net of allowance for bad debt
cogs	=	cost of goods sold
INV	=	average inventory, stated on FIFO basis
opex	=	operating expenses (general, sales, administrative, and depreciation expenses)
PPE	=	property, plant, and equipment, net of accumulated depreciation
sales	=	net sales
tc	=	total cost (cogs + opex, as defined above)
h	=	average accounts payable or trade accounts receivable holding period, stated as a fraction of a year
i	=	interest rate
$_t$	=	entity being tested
$_c$	=	comparable

<u>Equations</u>:

If Cost of Goods Sold is controlled (generally, sales in denominator of PLI):

Receivables Adjustment ("RA"): $RA = \{[(AR_t / sales_t) \times sales_c] - AR_c\} \times \{i/[1+(i \times h_c)]\}$
Payables Adjustment ("PA"): $PA = \{[(AP_t / sales_t) \times sales_c] - AP_c\} \times \{i/[1+(i \times h_c)]\}$
Inventory Adjustment ("IA"): $IA = \{[(INV_t / sales_t) \times sales_c] - INV_c\} \times i$
PP&E Adjustment ("PPEA"): $PPEA = \{[(PPE_t / sales_t) \times sales_c] - PPE_c\} \times i$

If Sales are controlled (generally, costs in the denominator of PLI):[23]

Receivables Adjustment ("RA"): $RA = \{[(AR_t / tc_t) \times tc_c] - AR_c\} \times \{i/[1+(i \times h_c)]\}$
Payables Adjustment ("PA"): $PA = \{[(AP_t / tc_t) \times tc_c] - AP_c\} \times \{i/[1+(i \times h_c)]\}$
Inventory Adjustment ("IA"): $IA = \{[(INV_t / tc_t) \times tc_c] - INV_c\} \times i$
PP&E Adjustment ("PPEA"): $PPEA = \{[(PPE_t / tc_t) \times tc_c] - PPE_c\} \times i$

Then Adjust Comparables as Follows:
adjusted $sales_c = sales_c + RA$
adjusted $cogs_c = cogs_c + PA - IA$
adjusted $opex_c = opex_c - PPEA$

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[23]Depending on the specific facts, the equations below may use total costs ("tc") or cost of goods sold ("cogs").