

# TPA Global's Approach On Holistic Quantitative Value Chain Analysis And The Connection To The “Unified” Approach

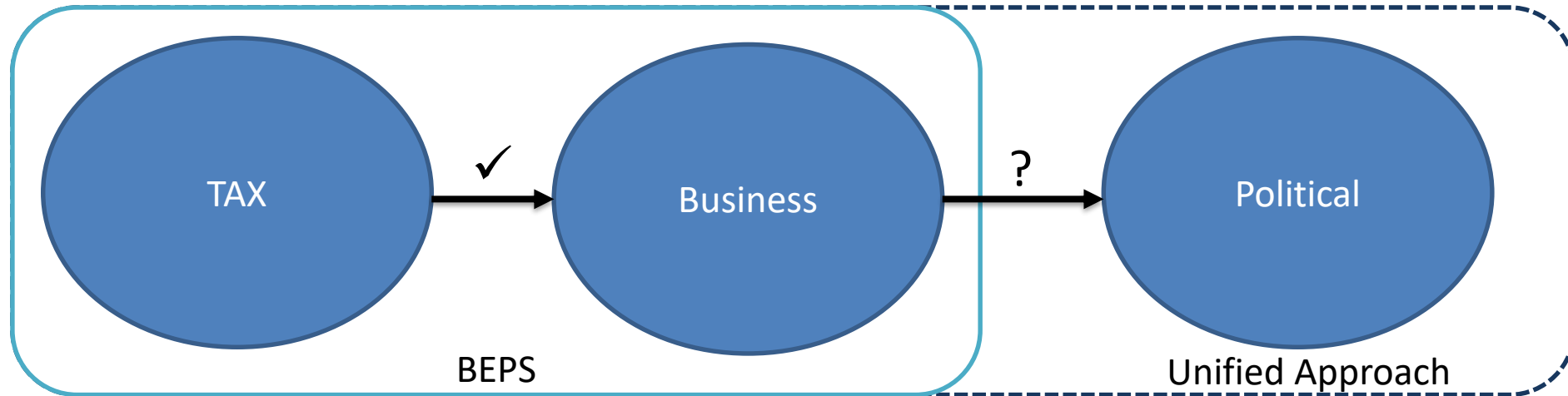
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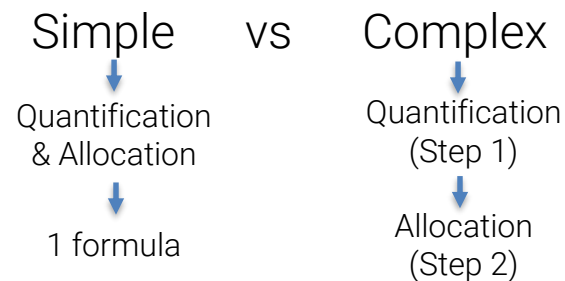
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# Introduction: Which realities need to be synchronized?



# Quantitative VCA (BEPS compliant)

- Quantitative VCA is presented as a corroborative method for transactional transfer pricing.
- Quantitative VCA is perceived as a subjective approach to a profit allocation.
- Quantitative VCA should not be confused with the profit split method.
- TPA uses the following framework to make VCA more objective – less subjective:
  1. **Regulatory framework** – countries regulations requirements;
  2. **Industry framework** – economical and statistical relevant “independent variables” driving EBIT;
  3. **BEPS-compliant framework** – Criteria for a proper quantification of carve-outs and allocation to countries / legal entities.  
There are two categories:



## Germany

A value contribution analysis contains evidence as to what prices, cost premiums, margins, etc. are in light of the economic contributions the individual companies, considered reasonable.

The following approach should be used to carry out a complete value chain analysis:

- Firstly, the individual business processes for value creation within the Group must be identified;
- Subsequently, the relative weighting of individual business processes to the whole value chain must be determined,
- Lastly, an analysis should be made of the contribution of the respective Group company to the individual business processes

## Australia

2017 ATO guideline provides MNEs with a self-assessment risk framework in order for them to assess its transfer pricing risks. Emphasis has been laid on the hub's commerciality, its functions, risks assumed and the arm's length nature of the pricing arrangements.

## China

Notice 42 on value chain analysis stipulates the inclusion of the following into the local file:

- (1) Flows of business, goods and materials, and capitals within the group, including design, development, manufacturing, marketing, sales, delivery, billing and payment, consumption, after-sale service, recycling, other processes related to goods, services or other relevant underlying targets of the related party transactions and all the parties involved.
- (2) Annual financial statements of each of the aforementioned parties for the immediately preceding fiscal year.
- (3) Measurement and attribution of value creation contributed by location specific factors.
- (4) Allocation policies and actual allocation results of the group's profits in the global value chain.

## South Africa

Public Notice introducing Master File and Local File requirements mandates keeping extensive records which would allow SARS to perform a full VCA, including:

- A summary of the business operations including a description of the business, an organogram, an industry analysis (including key value drivers) and the role of the company and its connected persons in the group's supply chain;
- A description of the functions performed, risks assumed and the assets employed in the potentially affected transactions, together with a description of any intangible assets involved; and
- Operational and cash flows of the potentially affected transactions.

# Industry Framework - Variables based on the allocation of profits



## OECD TP Guidelines 2017

- “2.141 In practice, **allocation keys based on assets/capital (operating assets, fixed assets, intangible assets, capital employed) or costs (relative spending and/or investment in key areas such as research and development, engineering, marketing)** are often used. Other allocation keys based for instance on incremental sales, headcounts (number of individuals involved in the key functions that generate value to the transaction), time spent by a certain group of employees if there is a strong correlation between the time spent and the creation of the combined profits, number of servers, data storage, floor area of retail points, etc. may be appropriate depending on the facts and circumstances of the transactions.”
- “2.142 **Asset-based or capital-based allocation keys** - can be used where there is a **strong correlation** between tangible or intangible assets or capital employed and creation of value in the context of the controlled transaction...”
- “2.144 **Cost-based allocation keys** - An allocation key based on expenses may be appropriate where **it is possible to identify a strong correlation** between relative expenses incurred and relative value added. For example, marketing expenses may be an appropriate key for distributors-marketers if advertising generates material marketing intangibles, e.g. in consumer goods where the value of marketing intangibles is affected by advertising. Research and development expenses may be suitable for manufacturers if they relate to the development of significant trade intangibles such as patents. However, if, for instance, each party contributes different valuable intangibles, then it is not appropriate to use a cost-based allocation key unless cost is a reliable measure of the relative value of those intangibles.”
- “2.138...allocation keys used to split the profit should be based on **objective data**.
- “2.138...allocation keys used to split the profit should be supported **by comparables data**, internal data, or both.
- Allocation keys should be supplemented where possible **by external market data** that indicate how independent enterprises would have divided profits in similar circumstances. (Contribution analysis definition under Chapter 1 of OECD Transfer Pricing Guidelines, 2017)
- Keys for the allocation of profits may be based on the **relative contributions** of the parties, as measured by their functions, assets used and risks assumed. (Para 2.168 of Revised Guidance on the Application of the Transactional Profit Split Method - BEPS Action 10, 2018)

**Step 1: Quantification – each point below should be scored with 1 – the quantification meets the criterion or 0 – the quantification does not meet the criterion**

1. The quantification should be based on **objective** data. (Para 2.138 of OECD Transfer Pricing Guidelines, 2017)
2. The quantification should be based on **comparable** data. (Para 2.138 of OECD Transfer Pricing Guidelines, 2017)
3. The quantification should rely on all the **economically significant** functions, assets and risks contributed by the parties to the value driver. (Para 2.178 of Revised Guidance on the Application of the Transactional Profit Split Method - BEPS Action 10, 2018)
4. There should be a **strong and relatively consistent correlation** between the variable and the creation of value represented by the relevant profits. (Pars 2.172 of Revised Guidance on the Application of the Transactional Profit Split Method - BEPS Action 10, 2018)

**Step 2: Allocation keys– each point below should be scored with 1 – the allocation meets the criterion or 0 – the allocation does not meet the criterion**

1. Allocation keys should be based on **objective** data. (Para 2.138 of Revised Guidance on the Application of the Transactional Profit Split Method - BEPS Action 10, 2018)
2. Allocation keys should be supplemented where possible **by external market data** that indicate how independent enterprises would have divided profits in similar circumstances. (Contribution analysis definition under Chapter 1 of OECD Transfer Pricing Guidelines, 2017)
3. Keys for the allocation of profits may be based on the **relative contributions** of the parties, as measured by their functions, assets used and risks assumed. (Para 2.168 of Revised Guidance on the Application of the Transactional Profit Split Method - BEPS Action 10, 2018)
4. Allocation keys should demonstrate a **strong correlation** between the allocation key and the value created. (Para 2.141-Para 2.145 of OECD Transfer Pricing Guidelines, 2017)

# Industry Framework - Revised Guidance on the Application of the Transactional Profit Split Method June 2018

- The guidance set out in the Report responds to the mandate under Action 10 of the BEPS Action Plan, which required the development of: “... rules to prevent BEPS by engaging in transactions which would not, or would only very rarely, occur between third parties. This will involve adopting transfer pricing rules or special measures to: ... (ii) clarify the application of transfer pricing methods, in particular profit splits, **in the context of global value chains**;...” and establishes when the profit split may be the most appropriate method to apply.
- 2.171. Profit splitting factors **based on assets or capital** (e.g. operating assets, fixed assets (e.g. production assets, retail assets, IT assets), intangibles), or **costs** (e.g. relative spending and/or investment in key areas such as research and development, engineering, marketing) may be used where these capture the relative contributions of the parties to the profits being split and they can be measured reliably. Note that while costs may be a poor measure of the value of intangibles contributed (see paragraph 6.142), the relative costs incurred by parties may provide a reasonable proxy for the relative value of those.
- 2.172. Other profit splitting factors that could be appropriate in the circumstances of a given case include incremental **sales**, or **employee compensation** (relating to the individuals involved in the key functions that generate value to the transaction, for example in relation to the global trading of financial instruments). In other situations it is possible that **headcount** or time spent by a certain group of similarly skilled employees with similar responsibilities could be used if there is a strong and relatively consistent correlation between this and the creation of value represented by the relevant profits.
- 2.179. Asset-based or capital-based profit splitting factors can be used where there is a **strong correlation** between tangible assets or intangibles, or capital employed and creation of value in the context of the controlled transaction.
- 2.181. A profit splitting factor based on **expenses** may be appropriate where it is possible to identify a strong correlation between relative expenses incurred and relative value contributed. For example, marketing expenses may be an appropriate factor for distributors-marketers if advertising generates unique and valuable marketing intangibles. Research and development expenses may be suitable for manufacturers if they relate to the development of unique and valuable intangibles such as patents

Source: OECD (2018), Revised Guidance on the Application of the Transactional Profit Split Method: Inclusive Framework on BEPS: Action 10, OECD/G20 Base Erosion and Profit Shifting Project, OECD Paris



## TPA's Industry-wide analysis:\*

- Step 1:** Determination of years to be covered.
- Step 2:** Understanding the industry under examination and identify the significant comparability factors that should be taken into account (i.e. 16 variables).
- Step 3:** Determination of the criteria for selecting the companies, which will represent an industry.
- Step 4:** Determination of sources of information and collecting the data for the economic relevant variables.
- Step 5:** Selection of the most appropriate econometrical and statistical method.
- Step 6:** Identification of the economic and statistical significant variables.
- Step 7:** Making comparability adjustments where appropriate, if any.
- Step 8:** Interpretation of the results of the regression analysis, determination of the allocation keys.

Variables **			
1	Sales/ Revenue	9	Inventory
2	COGS	10	CAPEX
3	OPEX	11	Intangible assets
4	R&D expenses	12	Financial assets
5	Marketing expenses	13	Total assets
6	Wage expenses	14	Total equity
7	Total cost	15	FTE'S
8	Tangible assets	16	Number of Geographic location

\* Compare with typical process for a transactional benchmarking (section 3.4 of OECD guidelines 2017)

\*\* Based on a series of academic publications.

# Industry-wide Quantitative VCA – Example 1

## Pharmaceutical Industry

Companies - Traditional		Sales / Revenue 2018
1	Johnson& Johnson	€ 70,282,031,500
2	Roche	€ 50,908,290,741
3	Pfizer	€ 46,216,890,500
4	Novartis	€ 44,711,850,000
5	Bayer AG	€ 39,586,000,000
6	Merck & Co	€ 36,436,281,000
7	Sanofi	€ 34,463,000,000
8	AbbVie	€ 28,216,709,500
9	GlaxoSmithKline	€ 26,552,291,500
10	Eli Lilly	€ 21,158,440,000
11	Bristol-Myers Squibb	€ 19,436,301,500
12	AstraZeneca	€ 19,030,535,000
13	Takeda	€ 16,159,110,920

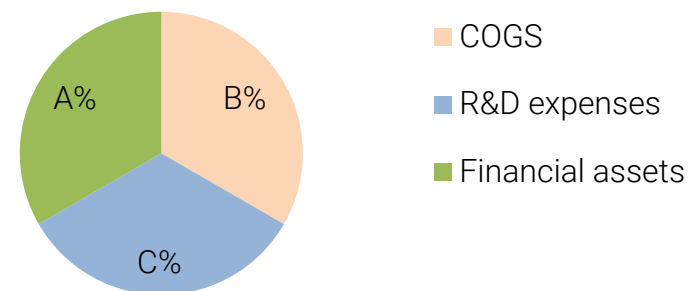
Companies - Biological		Sales / Revenue 2018
1	Amgen	€ 20,458,040,500
2	Gilead Sciences	€ 19,062,410,500
3	Novo Nordisk	€ 14,973,310,249
4	Allergan	€ 13,600,845,100
5	Shire	€ 13,344,635,000
6	Celgene	€ 13,164,581,500
7	Biogen	€ 11,589,673,350
8	CSL	€ 6,537,062,000
9	Regeneron	€ 5,781,354,200
10	Alexion	€ 3,559,028,800
11	Vertex	€ 2,625,504,816
12	Jiangsu Hengrui	€ 2,522,179,620

Source: S. Huibregtse and M. Spiliotopoulou (2019). Quantitative Industry-wide Value Chain Analysis: The road to a new generation of Transfer Pricing Benchmarking  
See <https://www.e-bright.com/bookstore>

# Industry-wide Quantitative VCA – Example 1

## Pharmaceutical Industry on “statistical significant variables”

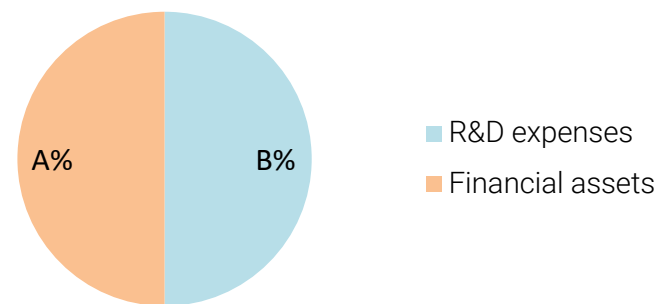
Independent Variable	Effect	EBIT	$\beta$	Accepted?
FTEs	↑ 1 employee	↑	29,476	No
Financial assets	↑ 1 €	↑	0.200***	Yes
Tangible assets	↑ 1 €	↑	0.0283	No
Marketing expenses	↑ 1 €	↓	-0.322***	No
Inventory	↑ 1 €	↑	0.172	No
R&D expenses	↑ 1 €	↑	0.472**	Yes
COGS	↑ 1 €	↑	0.323***	Yes
OPEX	↑ 1 €	↓	-0.342***	No



Pie chart of main value drivers of EBIT in the Traditional pharmaceutical Industry

→ This table explains 76% of EBIT

Independent Variable	Effect	EBIT	$\beta$	Accepted?
FTEs	↑ 1 employee	↑	6,137	No
Financial assets	↑ 1 €	↑	0.605***	Yes
Tangible assets	↑ 1 €	↑	0.182	No
Intangible assets	↑ 1 €	↓	-0.073***	No
Inventory	↑ 1 €	↑	0.640	No
R&D expenses	↑ 1 €	↑	0.978***	Yes
COGS	↑ 1 €	↑	0.553	No
OPEX	↑ 1 €	↓	-0.393*	No



Pie chart of main value drivers of EBIT in the Biological pharmaceutical Industry

→ This table explains 79% of EBIT

Source: S. Huijbrechtse and M. Spiliotopoulou (2019). Quantitative Industry-wide Value Chain Analysis: The road to a new generation of Transfer Pricing Benchmarking

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# Industry-wide Quantitative VCA – Example 2

## Apparel Industry

Companies- Luxury		Sales/ Revenue 2017
1	LVMH	€ 42,636,000,000
2	Kering	€ 15,477,700,000
3	Luxottica	€ 9,157,291,000
4	Philips-Van Heusen	€ 7,680,100,200
5	Ralph Lauren Corporation	€ 5,731,387,200
6	Hermes	€ 5,549,200,000
7	Capri Holdings	€ 3,871,322,550
8	Burberry Group Plc	€ 3,321,991,680
9	Prada	€ 2,741,095,000
10	Moncler	€ 1,193,704,000

Companies- Fast Fashion		Sales/ Revenue 2017
1	TJX Companies	€ 30,897,697,500
2	Nike	€ 29,592,525,000
3	Inditex	€ 25,336,000,000
4	H&M	€ 21,320,426,400
5	Adidas	€ 21,220,000,000
6	Fast Retailing Co	€ 14,346,070,485
7	Marks & Spencer	€ 12,912,103,200
8	L Brands	€ 10,832,501,000
9	VF Corporation	€ 10,175,328,986
10	Hudson Bay (NRDC Equity Partners)	€ 9,900,810,000
11	Under Armour	€ 4,287,300,410

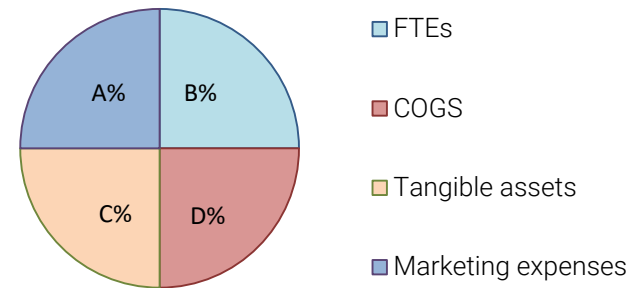
Source: S. Huibregtse and M. Spiliotopoulou (2019). Quantitative Industry-wide Value Chain Analysis: The road to a new generation of Transfer Pricing Benchmarking

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# Industry-wide Quantitative VCA – Example 2

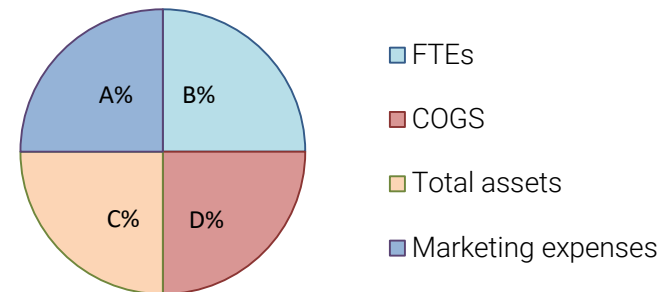
## Apparel Industry on “statistical significant variables”

Independent Variable	Effect	EBIT	$\beta$	Accepted?
FTEs	↑ 1 employee	↑	12,702***	Yes
Marketing Expenses	↑ 1 €	↑	0.673***	Yes
Tangible assets	↑ 1 €	↑	0.210*	Yes
Intangible assets	↑ 1 €	↓	-0.002	No
Inventory	↑ 1 €	↓	-0.553***	No
OPEX	↑ 1 €	↓	-0.453***	No
COGS	↑ 1 €	↑	0.553***	Yes



Pie chart of main value drivers of EBIT in the Luxury Apparel Industry  
 → This table explains 97% of EBIT

Independent Variable	Effect	EBIT	$\beta$	Accepted?
FTEs	↑ 1 employee	↑	16,278***	Yes
Marketing expenses	↑ 1 €	↑	1.421***	Yes
Total assets	↑ 1 €	↑	0.088*	Yes
COGS	↑ 1 €	↑	0.215**	Yes
OPEX	↑ 1 €	↓	-0.262***	No



Pie chart of main value drivers of EBIT in the Fast-Fashion Apparel Industry  
 → This table explains 80% of EBIT

Source: S. Huibregtse and M. Spiliotopoulou (2019). Quantitative Industry-wide Value Chain Analysis: The road to a new generation of Transfer Pricing Benchmarking

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# The “Unified” Approach (Non-BEPS compliant)

OECD proposes a new taxation right, which will allow countries to directly tax the global profit of a MNC.

## What is the purpose of this solution?

- To address the nexus and profit allocation for large MNE groups – *highly digitalized and consumer facing businesses*
- To allocate new taxing rights to market / user jurisdiction (unconstrained by physical presence)
- To achieve less complexity
- To co-exist with Arm’s Length Principle (ALP) and limit disruptions
- To avoid double taxation and tax disputes
- To lead to a consensus

## To whom does it apply?

- ✓ Digital and consumer businesses (including distributors and probably retailers)
- ✓ Businesses with significant global revenues (e.g. the 750 million euros revenue threshold used in the CbCR reporting)
- ✓ Businesses with significant sales into the market (e.g. 25 million euros)
- ✓ Highly profitable at the global level with profits in excess of routine returns

# The “Unified” Approach- How to allocate the Profits?

The Model based on three separate returns to the market/user jurisdiction

## Amount A

- New taxing right to market/user jurisdiction
- Independent of physical presence
- Formulaic approach based on group / business line profits
- No links to ALP

## Amounts B & C

- No new taxing right - merely a modified operation of the ALP
- Follows the separate entity approach

- A = Deemed residual profit
- ALP { B = Standard return on the distribution functions
- C = Additional return / Royalties

# Computing Amount A: Global Profit Split

	Formula	Example (Profit Rate in %)
Factor B →		
Factor A →		

## Questions:

Step 1: What would be an “arm’s length principle” of the residual profit allocable to the market (where users / consumers are)?

Step 2: How to allocate the “market profit of residual profit” back to the countries?

Source: G. DeSouza (2019). Double taxation and the OECD Unified Approach- What it means for U.S. Multinationals in China



# Amazon- Major Comments on Unified Approach



**Principle 1** - Levied on profits/losses, not on revenue

**Principle 2** - Apply in an economically principled way to both loss-making and profit making businesses.

**Principle 3** - Be proportionate, neutral, equitable and enforceable so that it is applicable to all types of businesses.

**Principle 4** - Be a direct taxation only

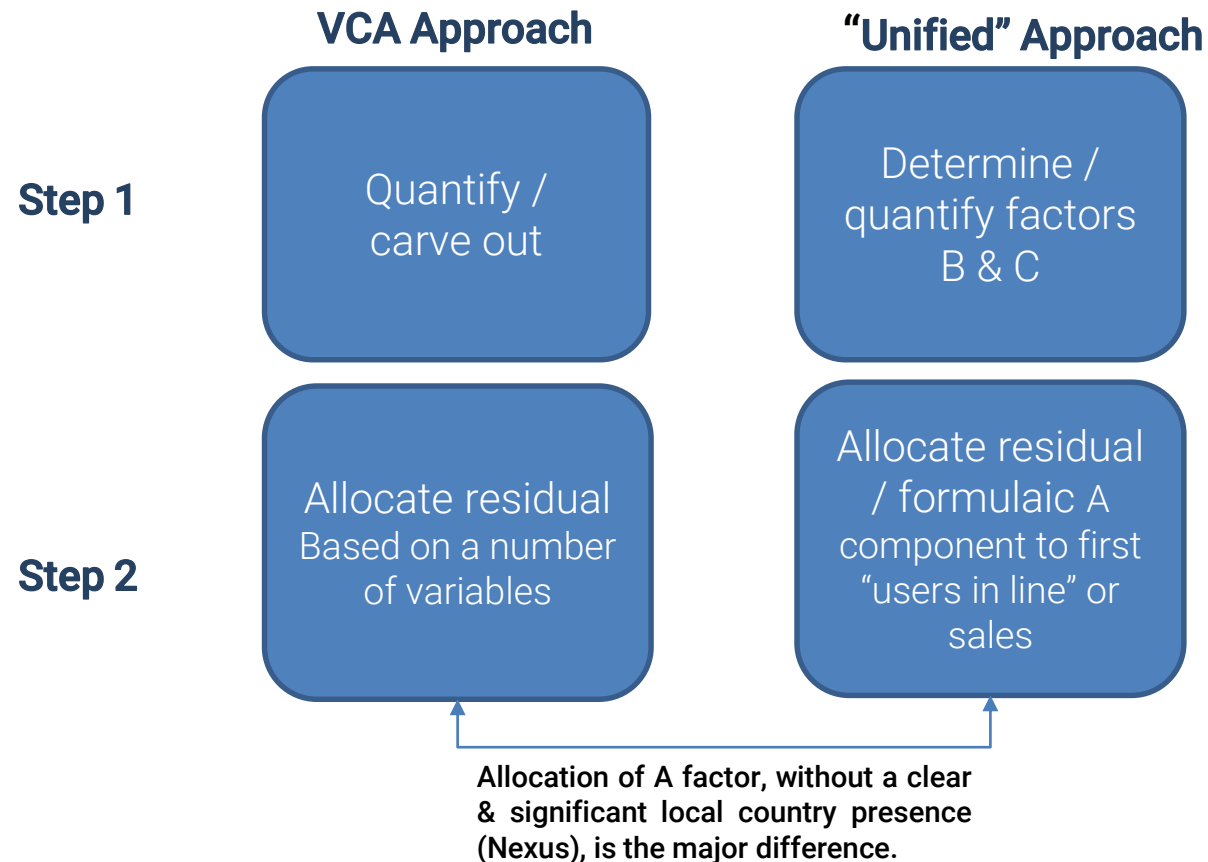
**Principle 5** - Achieve consensus and maximize consistency in its application, in order to avoid multi-layer taxation

**Principle 6** - Include mandatory mechanisms for effective dispute resolution

**Principle 7** - Create clear and simple rules to comply with and provide collaboration on transition relief.

Source: K. Lamp - Amazon (2019). Comments on the Secretarial Proposal for the “Unified Approach” under Pillar One

# What makes a BEPS compliant VCA different from the “Unified” approach?



**Question:** What are the Nexus definitions of (i) users and (ii) market?

# Q & A

# TPA Global “Transforming the World of Tax”



## Who we are

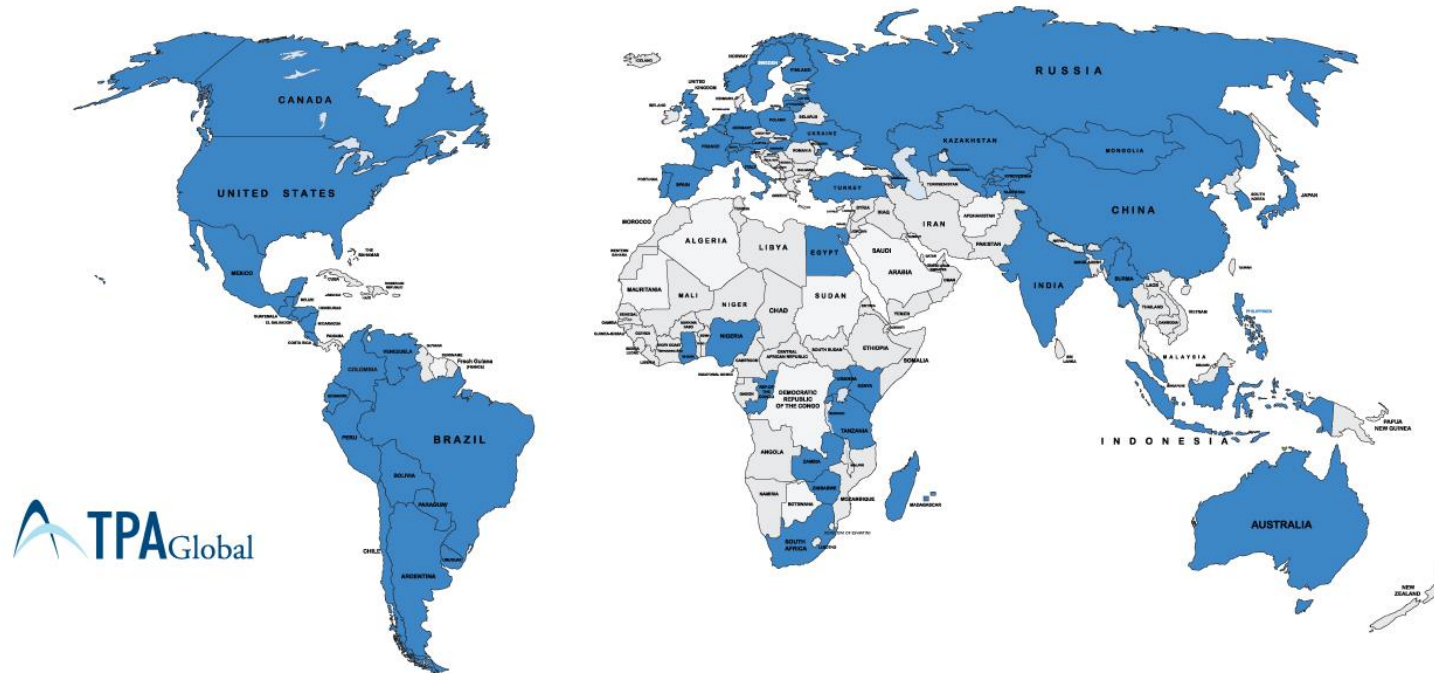
TPA Global is a world leading professional services and solutions partner that operates through a global members network. Our global team consists of 2000 professionals who are experienced in the area of Transfer Pricing & BEPS, Value Chain Analytics and Technology Solutions. We understand the multiple requirements of multinationals and deliver pragmatic solutions for our clients.

## Our solutions

We offer Transfer Pricing & BEPS related services, full value chain analyses for multinationals along with a variety of tax, business and educational technology solutions. In addition, TPA has organized a global tax controversy team dealing with tax litigation & mediation.

## Your benefits

- Full synchronization of financial data with tax and operating models;
- Global tax compliance;
- Pro-active Risk Management;
- Efficient management of in-house challenges (HR, IT, Training and succession planning).



TPA Global serves international businesses with integrated and value-added solutions. To ensure the highest quality and seamless service provision, thereby meeting international standards and regulations, a global network of dedicated professionals and specialists is a key and determining factor.

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