

What is a part? What is a product? How does a component change from part to product? These may sound like simple questions but they help to determine how much tax many international companies pay each year. And significantly, it is within the capabilities of CPOs and their procurement organisations to create and exercise options that significantly reduce these bills.

Taxation can be viewed as a service procured from governments – one where rates are negotiable and where the overall cost depends on the stage at which procurement is involved in the design of products and in the definition of the supply chain strategy. As with other services, it is important to involve the procurement organisation early if the best deal is to be achieved. In this article, we consider how procurement can greatly enhance the effectiveness of tax planners. We review some common techniques to reduce tax rates, along with an exciting new method: tax options. We will also consider the buy-sell infrastructure that is needed to enable this opportunity.

To begin with, consider the smallest element of every product: the component. Sometimes, a component sold between organisations is a product with a list price established by the market, and sometimes an identical component is sold between entities as a

part used to assemble a product. Let's take a simple example: a yogurt SKU. The yogurt itself is a component. The cup and the lid are products in their own right but are used as parts in assembling the yogurt SKU. The cup containing the yogurt is less valuable after being filled because alternative usages are no longer possible. The cup, as a part incorporated in the final product, is less valuable than an empty cup for the same reason. In other words, the yogurt assembly process increases the value of some components (the yogurt) and destroys the value of others (the cup).

Most accounting standards consider this part versus product situation by treating parts and products differently. Specifically, most parts are transferred at a cost-plus price (cost plus a mark-up percentage), while most products are transferred at a list-less price (list price minus a percentage discount). Usually, the product design and supply chain configuration are taken as given and the management task is framed to simply follow accounting standards. However, this acceptance of part and product definitions and the supply chain configuration may cause a company to significantly overpay its taxes. At "IQ", a multinational firm and major player in the electronics industry, an aligned procurement and tax planning programme cut tax rates nearly in half.

Many components can be either a part or a product depending on how a firm designs, procures and assembles its product. This

Engineering a lower tax bill

Moving procurement operations to a lower-cost country is only the start of the tax-efficiency journey. Next stop: redesigning the supply chain

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ILLUSTRATION: PETER GREENWOOD



is “part-product ambiguity” (a term coined by Peter Cebon, an innovation specialist at the University of Melbourne) and components that exhibit this ambiguity are “part-products”. Managing this situation forms the basis of tax options created by procurement organisations.

The traditional view of assembly is that it takes components or ingredients of a certain value and aggregates them into a form that has a higher total value. But how this added value is tied back to components is contextually dependent. Typically, all components used in assembly are treated as parts, whose value is increased after assembly, and the total profit margin is allocated proportionally to all components through some form of cost-plus transfer pricing. This is administratively convenient but may result in significantly higher taxes being paid than selectively treating part-products as products rather than parts.

Different components contribute differently to how value is created in the final product. For some, being assembled into an end product may even destroy some of their economic value, although this may be necessary to create net total value. The true

accessory to the complete assembled product or used in a different end product). For example, assembling a standard memory module for a notebook computer reduces its value because to use the module in a different application requires an investment of time and money to remove the module from the computer. Thus, the assembly process for the memory part destroys value for the component and adds value to the computer.

In an assembled finished product, the overall value comes disproportionately from custom components. That is, a firm makes money on custom components that have limited alternative uses and loses money on part-products that have multiple potential uses. However, these part-products do facilitate making a profit on custom components. Besides component design considerations of cost and functionality, a decision to use a standard component rather than a custom component has tax consequences that, when properly exercised, reduce tax rates. Companies need to determine if this tax reduction is material and, if it is, the procurement function should be chartered to harvest the opportunity.

A component may pass through several entities along the supply chain. Computation of each organisation’s taxes requires establishing a cost basis and transfer price for all components at each stage of the supply chain. If material changes title in a purchase transaction between independent organisations, then transfer price calculations are relatively easy. But ownership might not change or the entities might be part of the same parent company. This requires some sort of transfer pricing scheme to provide legal and correct financial grounds for computing taxes based on the component transfer prices, and to provide a way to specify the sovereignties in which profits will be

formally realised. Component transfer must be defensible and consistent with the accepted accounting standards and tax laws of all the countries involved.

Legally, a product can be transferred between divisions at a transfer price of “list-less” (often just a deduction of some percentage off the market price). This is often true of high-margin product accessories: the skin of a cell phone, the memory module for a PC, the battery of a car, or a yogurt cup. If list-less transfer pricing is used when a supplier sells its output to the product factory, the latter may show reduced profit on the final product because of a higher transfer price on this component. Of course, the component factory or the procurement service organisation has higher profits that can be taxed at a lower rate than the product factory.

For high-margin accessories, the list-less price is typically greater than the commonly used “cost-plus” transfer pricing used for parts. The transfer pricing difference between these methods can be viewed as a tax option. Determining an appropriate transfer price, creating a procurement buy-sell infrastructure and designing a component interface can be considered the cost of the tax option. Correctly accounting for the value-destroying nature

of assembling a standard component into an end product can have enormous profit consequences.

The buy-sell model foundations

A necessary step in taking advantage of this opportunity is creating the right infrastructure. To enable options to be selected, an intermediary (or broker) is required to sit between the buyer and seller. Similarly, tax options need an intermediary between the seller of the component (the supplier) and the buyer (the assembly factory). Our experience suggests that a procurement services organisation empowered with a buy-sell infrastructure is ideal for this intermediary role.

When adopting a buy-sell strategy, the parent company creates a global procurement services organisation as a legal entity to administer the component buy-sell processes. This should be in a low-tax jurisdiction and charge an appropriate commission for its services. Locating the organisation and its earnings in a low-tax country or region is a common means of international tax arbitrage (a strategy also known as “tax shifting”). But before it can begin creating and exercising tax options, the procurement organisation needs to master international tax arbitrage and create a buy-sell infrastructure.

Buy-sell models were created as a way for original equipment manufacturers (OEMs) to mitigate the risks and control issues associated with using external assemblers or contract manufacturers in their supply chains. In practice, they have been used by companies such as Hewlett-Packard, IBM, Motorola, Dell and some automotive OEMs. For its part, “IQ” switched to a buy-sell model 15 years ago because it estimated that control issues accounted for 4-6 per cent of the component purchase price. IQ then extended it for the purposes of international tax arbitrage. More recently, it discovered that its buy-sell infrastructure was ideal for exercising procurement tax options.

These options become possible when the parent company creates a global procurement services organisation in a low-tax jurisdiction equipped with a buy-sell infrastructure. Under this system, the procurement organisation buys components from suppliers at a negotiated unit cost, defines the most advantageous transfer price (list-less or cost-plus) and then sells the components to the assembler. Once the assembler has produced the final product, it is sold back to the parent company at a price that includes the assembler’s margin and the value loss of the component as a result of assembly.

Setting up a buy-sell model also requires that the procurement group can sell as well as buy material parts and products. This means establishing an infrastructure that includes sales channel and finance functions such as account management, revenue collection, returns handling and cash management.

The specific execution of a buy-sell model is as follows:

- The procurement organisation buys components from suppliers at a negotiated unit price.
- The procurement organisation sells part-product components to the assembler factory at a unit price of list-less or cost-plus (whichever provides the lowest overall tax bill).
- The procurement organisation eventually buys the part back

from the assembler (as part of an assembled product) at a unit cost that includes the assembler’s mark-up.

- The parent company sells the assembled product to its customers.

In this scenario, profits are directly linked to the transfer price. With the procurement services organisation in a lower-tax jurisdiction than the parent company, the higher the value of the component transfer price, the greater the profit, because taxes are reduced for the enterprise as a whole.

Tax option requirements

Creating a tax option using part-product ambiguity has several requisites. First, there has to be a market for the part-product component. If the procurement services organisation wants to sell a part-product component as a product, it should also sell the component to an arm’s-length channel or direct to consumers. For example, the procurement services organisation could sell memory modules to end consumers online.

Second, there needs to be a difference between the tax rate incurred by the parent company in its home country and that paid by the procurement organisation. Third, R&D and procurement have to co-operate. If the procurement services organisation wants to sell a part-product as a part, then the component should be designed with minimal alternative uses. Conversely, if the procurement services organisation wants to sell the part-product component as a product, the product and component should be designed with standard interfaces so that the modules are not “hard-wired” to the final product. Hard-wired parts rarely have part-product ambiguity.

A number of managerial implications result from this type of scenario:

- The greater the difference between the cost of a component and its list price (margin), the greater value there is in the component’s tax option. Our research shows that tax option opportunities are severely affected by the margin of the component.
- The list-less transfer pricing factor (discount level from list price) is more important than the cost-plus factor. The lower the list-less factor, the higher the profit generated by the procurement organisation. This is also true, albeit to a much lesser extent, of the cost-plus transfer pricing factor.
- Buy-sell infrastructures cost money. Therefore, a large enough flow of goods to cover the cost of the infrastructure is required, or the parent company can procure services from external procurement service providers.
- Setting up a tax option strategy requires robust planning and consultation with tax experts. The procurement function should be supported by these experts to ensure that its strategy falls within legal and reporting boundaries. The procurement head typically has to overcome both organisational reluctance and skill gaps.
- Because accounting standards change frequently and tax systems are not completely rational, the structure and strategy of the tax options programme should be flexible enough to withstand these changes. Some options will become obsolete, while others will be created.

Companies such as IQ have mastered tax management to a level where it has become a major competitive advantage. The

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economic value for a component can be inferred from its alternative uses. Generally speaking, all else being equal, any action such as localisation that reduces a component’s alternative use reduces its economic value.

In the case of our yogurt cup, assembling a standard component with many alternative uses into a finished product destroys the economic value of the standard component. Standard components with many alternative uses also often have a standard interface, such as a computer memory chip that uses a common plug for computers across all brands. Typically, components with standard interfaces are “part-products”.

Part-product ambiguity arises when a component can be sold on the open market as its own finished product (whether as an

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FIGURE 1: IQ'S EFFECTIVE TAX RATE ADVANTAGE

	1999	2000	2001	2002
"IQ"	26.0%	23.9%	11.1%	12.3%
Competitor 1	34.4%	29.8%	29.5%	29.1%
Competitor 2	29.9%	32.0%	30.0%	28.0%
Competitor 3	39.1%	32.0%	27.2%	n/a

SOURCE: COMPANY 10-K FORMS

techniques discussed in this article do not account for IQ's entire tax advantage (more than 16 percentage points in 2001 over its direct competitors – see *figure 1*), but its tax rate illustrates the opportunities available by tax shifting and, more specifically, tax options. The procurement organisation is an integral partner in creating this advantage.

In 2002, IQ's merger with a direct competitor provided insiders with a rare opportunity to directly juxtapose the different procurement philosophies of two very similar firms with similar volumes and common suppliers. In essence, the IQ merger provided a controlled experiment that showed, in detail, the significant value – reductions of up to 50 per cent – that its tax-aware procurement strategies created. Within IQ's procurement organisation, it was generally understood that the benefits from procurement-based tax options were similar in size to those achieved through volume aggregation.

Procurement's start in minimising taxes

Companies that want to harness the full power of tax options must ensure that their procurement professionals make rapid progress on three fronts.

1 | Launch multiple experiments

Procurement managers need to adopt an experimental mindset to make the most effective use of the opportunities presented by tax options. A good starting point is to identify a few components to pilot the concept. Ideally, the pilots should be broad enough to allow the organisation to evaluate the potential of an enterprise-wide adoption. In essence, procurement leaders need to start including tax transfer and tax options in their toolboxes.

It is important to begin with a low-profile, small-scale project and avoid overselling the concept to senior management. The pilots should be in different product categories and should reflect different accounting standards if the procurement teams are to gain a comprehensive understanding of what tax options are all about. In such experimental phases, the procurement teams, together with any tax department staff with whom they are working, must learn how to divide their efforts and then create and execute the options properly. They also need to develop accurate reporting procedures for tax purposes and to work with governmental agencies on advance pricing agreements.

2 | Track results and build bridges

Once procurement managers are aware of the economic opportunities of such a tax strategy, and after they have completed the pilots, they should document and evaluate each project and record

its lessons. IQ created a department within the procurement finance organisation to manage the evolution and evaluation of the programme and its link to tax departments, IT, R&D and financial reporting. The pilots should be gauged in terms of the costs of creating tax options, including design, material, and infrastructure costs, and an estimation of total value potential, implicit risks and, eventually, the returns on investment.

From an internal perspective, if procurement managers are to become active enablers of tax reduction, they will have to be proactive in creating "wish-lists" from internal clients by interacting with different departments – and with the tax department in particular. Then they will need to be prompt and efficient in delivering proposed implementations. Procurement, tax and R&D heads will have to create bridges between their respective departments and ensure there is a trusting atmosphere in which staff remain supportive and don't feel threatened.

3 | Lay the foundations of an 'active tax culture'

Eventually, all of these early pilot activities should be assembled under a larger change programme. The CPO can provide process leadership and prove cost-effectiveness, but corporate behavioural change on a significant scale is likely to require C-level support. It will be necessary for a senior executive, such as the CEO or chief operating officer, to appoint a process champion who will take the lessons from the pilots into part of the corporate culture. This means that "make-or-buy" decision processes typical in R&D departments, for example, will have to be modified and adapted to include tax options. Taxation is an evolving field and, to maximise value, the company needs to be continually creating, exercising and exiting tax options.

At the same time, the procurement group's metrics will have to be expanded to accommodate the new sources of value and related tasks. Clearly, tax-option approaches will flourish in environments where managers are unafraid to collaborate and experiment, and where they are rewarded for taking measured risks. By the same token, tax options will not help organisations that look to procurement only as a means of cost-cutting.



Our aim in this article has been to show that "tax shifting" – transferring some or all of the tax burden of an entity such as a parent company to another, such as a subsidiary – though efficient is only the tip of the iceberg. By involving procurement organisations in the design of both products and supply chains, and with the help of tax expertise, a firm can go much further in tax reduction within the limits of international tax law.

If they are used properly, tax options can lead to a significant tax advantage over competitors. However, using tax options requires setting up a robust system, comes with a cost and is likely to require different skills. Procurement organisations are well positioned to pursue tax-option strategies. Indeed, we would go as far to suggest that without their involvement, a business will pay higher overall tax rates. But it is up to CPOs to take the lead in implementing this exciting new model. **CA**