Indirect Taxation vs. the Circular economy

*Sjef de Wit, Indirect Tax consultant at Deloitte

The current believe on taxing consumption is based on a linear economy in which a supply chain is finite and each supply is taxable on an added value basis. Circular economy principles can contradict with various Indirect Taxations as a supply chain is never ending and taxing the added value will cause accumulation of taxes.

Introduction

Besides generating revenue Taxation is a proven instrument to encourage or discourage specific types of consumption. In the linear economy a taxation as ‘Value Added Tax’ works perfect to influence consumers in their behavior. However a VAT roars directly into the principles of a circular economy. Because it taxes the value that is added on a product and not the value that is lost.

In this article I will focus on the principles of the circular economy versus indirect taxation and what the alternatives are to enable indirect taxation in a circular economy.

Indirect Taxation in a linear economy

All indirect taxations are based upon the linear model and the idea that the end-user carries the tax burden of the purchased product. In a supply chain this does not lead to accumulation of tax, because a deduction right exists when the goods are used for taxable supplies and a supply chain ends after the consumer used the product.

Because the supply chain ends basic necessities can be promoted by levying a lower tax rate or polluting products can be discouraged by increasing the taxation. This is also the reason why it is a popular political instrument that works perfectly in a linear economy.

Indirect Taxation in a circular economy

Indirect taxation principles contradict with a circular economy because the supply chain continues and the tax is levied on the added value of the product and not on the lost value. This becomes most clear when the supply chain is reversed via reversed logistics or other ways of re-entering wasted products in the supply chain.

As such taxing each supply will continuously lead to an accumulation of taxes when the goods start on a new cycle. It does not make a difference if the consumer gets paid for its waste or not. In both situations tax accumulates.

Also wasting products will not be discouraged as only the added value is taxed.
Besides the principle differences there are also other practical barriers that make indirect taxation contradict with a circular economy. There are several specific tax regulations for the supply of waste, discouragements on re-entering waste due to carousel fraud and VAT accumulated when the consumer returns its products to the supply chain.

These problems are all created because indirect taxation cannot coop with the circular economy. I will explain this by using the example of fraud in the waste recycling industry.

VAT Fraud in the waste recycling system originates from the linear principle that after final usage goods become invaluable. Whilst when recycling these goods become resources and as such valuable and VAT taxable again. As such scrap collectors get invaluable goods (from a VAT perspective) that in practice have a much bigger value. VAT Fraud becomes lucrative much quicker than in a regular supply chain. Because the full value is VAT-taxed instead of the added value. The counter measurements to combat this VAT fraud taken by EU and local legislators are all about taking out indirect taxation of the supply chain completely and as such acknowledging that indirect taxation does not work in the circular model.

All these issues make indirect taxation a real barrier to go to a circular economy. However simply abolishing the system of indirect taxation is impossible as indirect taxation accounts for circa 25-30 % of the total revenue of an average EU country. Therefore alternatives for VAT and/or indirect taxation should be considered.

Alternatives

Value Lost Tax

On forehand the most logical alternative is not to tax the added value, but the lost value. Not only at the level of a consumer, but also on a business level (industrial waste). So companies will be encouraged not to lose value in the supply chain. However how do you determine the lost value after a single supply? You can tax a company on its waste streams. However the real challenge is to calculate the loss of the product in the final supply. This is practically impossible in a market with various subcontractors and semi-finished products. The only way this would be feasible is by taxing a company on its part of the estimated loss. However this contradicts with the principle to try to pursued companies to minimize their waste streams by taxing them in a peer group based upon estimations.
As long as you cannot determine the actual lost value, taxing value lost will contradict the intention of boosting companies to go to a circular model.

Besides the practical question how to value the loss I also fear that the operating cost vs. the revenues will be out of proportion.

*Duties/ Sales tax*

Another option is to take the recurrence of indirect tax out of the supply chain and only tax a product once, without deduction right. Governments can do so by imposing a sales tax (only the last supply in the chain is taxable) or by imposing duties per product (so a specific product attracts duties, similar to the system we currently have for tobacco and liquor).

These systems have the advantage that you can tax polluting products extra and as you only tax once per type of product, not the entire supply chain carries the administrative burden over and over. Because the refund system creates a deduction right and complicates the supply chain by only taxing the added value. Duties and sales tax do not have a refund procedure, which makes them more suitable for a circular economy. The downside is that they still do not act as an enabler for a circular economy and taxes still accumulate on resources.

*Change to transfer of ownership*

If we look closer to what originates the problem of indirect taxation within the circular economy it seems to be the ‘transfer of ownership’. Because at the moment of transfer the VAT is levied, a potential deduction right is created and when re-entering the supply chain VAT is accumulated.

So the most sensible and easy solution to enable indirect taxation within the circular economy is to look at the ownership of goods produced. Because this can overcome that VAT accumulates over the raw materials and the raw materials always keep their value at the actual price.

Currently there are several circular economy initiatives that challenge the principle of ownership. The general common ground of these initiatives is that a consumer does not want the product itself, but the enjoyment or efficiency the product generates. E.g. a consumer does not want a chair, but being able to sit or a consumer does not want a light bulb but a number of hours of light.

From a VAT perspective the mere licensing of the usage right of goods to the consumer, but retaining ownership by the supplier qualifies as leasing. And leasing does from a VAT-perspective not qualify as a supply of goods, but as the supply of a service. The big deviator between the supply of goods and services is that the return of the product by the consumer to the owner is not a VAT taxable transaction and as such no VAT accumulates on the return of the product.

Another advantage is that the VAT is levied on the value of the service and as such the value of the goods in principle becomes irrelevant. In contradict to a value loss tax now a value added tax can become an enabler for producers to retain ownership and as such promote circular principles. Because then materials are not part of the tax base and consumer prices could be lowered.
Of course I realize the value of the goods influences the value of the service. But when the raw materials can be fully re-used the value of the materials can be ultimately valued at nil in cost price calculations and the purchase of the service will be cheaper than the purchase of the good itself purely based upon the tax base.

So Indirect taxation can become an enabler for a circular economy if the ownership is kept at the party that (partly) re-uses the products. So goods should remain owned by the VAT-taxable circle. In all circumstances the ownership should not be transferred to a consumer or end-user that has no or partial VAT deduction right. This argument also matches with the circular economy principle to close the loop.

Of course there still are some obstacles to let indirect taxation work within the circular economy. The biggest barrier will be for countries to reduce regulation/obligations to report the transfer of goods from one EU country to another. Also for customs purposes a border will remain a barrier as goods that need to be transferred outside of Europe for regaining its value (e.g. steel that needs to be re-melted) will attract double customs taxation.

Conclusion

Indirect taxation is currently based upon the principle that a supply chain ends. Therefore it will always contradict with a circular economy in which goods re-enter the supply chain as resources.

To let a circular economy work more efficient or even promote it legislators have to take action. Even when the market/consumer would change their view on ownership new legislation is required to enable circular principles relating the supply of goods.

So the smoothest transition to enable indirect taxation in a circular economy would require a fundamental change in the way we consume our products and would require legislators to approach waste as the resources of the future.

---

1 I mean operational leasing as financial leasing does qualify as the supply of a good from a VAT perspective.