Deutsche Bank Research

August 1, 2002

No. 29

Economics
Internet revolution and new economy

Taxation of e-commerce – looking for solutions

- The internet presents new challenges in taxation. The imposition of a turnover tax on e-commerce is hampered by the difficulties involved in identifying the consumer. It is nearly impossible to apply the destination principle, which is standard practice internationally. In the taxation of profits, international companies might obtain new scope for optimising their tax burden. Both aspects may lead to erosion of the tax base. **At present, however, the volume of e-commerce is still too small to trigger serious fiscal problems.**

- The crucial factor for corporate taxation is whether internet servers are deemed to constitute permanent establishments. If so, companies could locate their servers in low-tax countries and, under the **permanent establishment principle**, pay tax on the profits allocated there. Legal experts are at odds over whether a server is a permanent establishment.

- Only purely **online turnover**, in which ordering, delivery and possibly payment are done over the internet, presents a tax problem. This turnover accounts for only a small fraction of total e-commerce. **Offline turnover**, in which merely ordering is done online but delivery is handled by conventional, physical means, presents no taxation difficulties.

- The obstacle to the implementation of the **destination principle** for online turnover (which states that the applicable tax rate is that of the country of end-consumption) is that suppliers are often unable to identify in which country customers place their orders. Thus, the providers lack the information needed to know which tax rate applies. The **origin principle** (which states that the applicable tax rate is that of the country from which the delivery is made) results in **competitive distortions** internationally, because product prices will hinge on different turnover tax rates. Since the USA, for example, currently imposes no turnover tax on online sales, consumers worldwide have an incentive to download digital products from websites of American suppliers or others who do not charge tax. The upshot is that online transactions thus remain tax-free.

- The recently passed **EU directive** requires suppliers from non-EU countries to register in an EU member state of their choosing and to charge the rate of turnover tax applicable in that country when conducting transactions with EU consumers. **This eliminates the current competitive distortions merely de jure, not de facto, since it is virtually impossible to compel suppliers from third countries to register**. The worldwide web requires worldwide answers in taxation. Given the growing scope of e-commerce it is now necessary to develop effective concepts.

Jörn Quitzau, +49 69 910-31890 (joern.quitzau@db.com)

Editor
Antje Stobbe
+49 69 910-31847
antje.stobbe@db.com

Technical Assistant
Martina Ebling
+49 69 910-31710
martina.ebling@db.com

Deutsche Bank Research
Frankfurt am Main
Germany
Internet: www.dbresearch.com
E-mail: marketing.dbr@db.com
Fax: +49 69 910-31877

Managing Directors
Axel Siedenberg
Norbert Walter

Taxation of e-commerce – looking for solutions

Digitisation presents new challenges in taxation

E-commerce[1] opens up new potential for sales and cost-cutting at companies. For consumers it makes buying more convenient by allowing them to shop at home on their computer and enabling them to compare different product offerings more easily. As e-commerce becomes more widespread it is creating additional opportunities for growth and prosperity.

E-commerce brings opportunities for growth and prosperity ...

By its very nature, though, the new digital world also brings new problems. The taxation of business transactions is one important area. If the internet is used on a greater scale and products are increasingly virtualised, this may lead to erosion of the tax base. Since geographical locations and national borders become irrelevant, it is not always possible to determine the country in which potentially taxable business is concluded. In many cases the tax authorities cannot even obtain any record of the transactions. One important feature of the internet is that it is not (yet) possible to authenticate the parties to a transaction. This can make it extremely difficult to identify both the basis for tax assessment and the party liable to tax. There is also the important question whether a company can, by a shrewd choice of location for its internet server, shift earnings abroad in order to benefit from lower tax rates in another country. Does this mean the much cited new economy requires a new tax policy, too? The answer is not clear-cut.

... but it brings problems for tax policy, too

Does the new economy require a new tax policy?

Profits should be taxed as income regardless of the source from which they derive. And all turnover – whether via the internet or by conventional means – should be subject to turnover tax. E-commerce should neither be promoted nor discriminated against in taxation. In tax theory, there is no doubt that e-commerce should be treated no differently from conventional business transactions. This goes for both earnings and turnover. The tax principles themselves are not the problem, but how to implement them.[2]

Tax system should treat e-commerce no differently from conventional business transactions

Turnover tax on cross-border transactions

Turnover tax is a general consumption tax that is intended as a charge on consumption in the country of the end-consumer. Germany and other European countries impose a value-added tax (VAT) on consumption, with deduction of input VAT, for this purpose. In the case of cross-border transactions double or multiple taxation of consumption should be avoided. This can be achieved in two ways: by applying the **destination principle** or the **origin principle**. The country of destination is the importing country, the country of origin the exporting country. Internationally, the destination principle is standard practice, i.e. goods are exempt (zero-rate taxation) from turnover tax in the exporting country and are subject to an import turnover tax in the importing country.

Destination principle vs origin principle

Internationally, destination principle is standard practice ...

[1] The WTO defines e-commerce as the "production, distribution, marketing, sale or delivery of goods and services by electronic means".

[2] There has been talk of a "bit tax", a special tax on e-commerce that has been proposed as a means of correcting all sorts of problems caused by e-commerce. It should also be rejected. On the subject of the "bit tax", see Beck, Hanno and Aloys Prinz (1997): Should all the world be taxed? – Taxation and the Internet, in: Intereconomics; March/April 1997, pp. 87-92.

Until December 31, 1992 this procedure was also applied within the European Community. But it was no longer practicable once border controls were discontinued, so a transition regime was introduced. This is still in force today. Under this arrangement the destination principle continues to apply to transactions between parties in European Union member states and parties in non-EU countries. And in practice it also applies to transactions between companies within the territory of the European Union (tax on intra-Community acquisitions).[3]

... but it has been problematic since border controls were discontinued in EU

Collection vs delivery transactions

In business with end-consumers a distinction has to be made between **collection** and **delivery transactions**. Whereas transactions in which the goods are delivered are taxed on a destination basis, the origin principle – which is unsatisfactory owing to its distorting effect on prices internationally – has to be applied when the buyer collects the goods (new vehicles are an exception). This is because the seller cannot know in such cases from which country the buyer comes and in which country final consumption will take place. Since the border controls were discontinued in the EU there has been an incentive to exploit price differentials due to differences in turnover tax. Just how worthwhile it is to buy in another EU country depends on the difference between the tax rates, the value of the purchase, and the transaction costs.

Economic effect in taxation of cross-border turnover

	Turnover between **EU member states**		Turnover between EU member states and **non-EU countries**
Turnover **between companies**	Destination principle		Destination principle
Company turnover with **end-consumers**	Delivery Transaction Destination principle	Collection Transactions Origin principle	Destination principle

The largest gap between tax rates of neighbouring countries (nine percentage points) is between Germany (16%) and Denmark (25%). For a product with a net price of EUR 2,000 (e.g. a high-end TV set) the tax effect alone would thus be EUR 180. The decision on whether to buy the more expensive product in Denmark or the cheaper one in Germany will now depend on the transaction costs. These consist of direct costs (for petrol, for example) and indirect costs (such as the time required). The greater the distance between the selling point and the consumer's residence, the higher these costs will be, and they will therefore tend to make the cross-border purchase less attractive. Transaction costs are a natural regulator that limits the distorting effects of the origin principle.

3 In the political discussion on European turnover tax procedure, the terms "origin principle" and "destination principle" are sometimes used differently - not in accordance with the economic definition given above – to denote the origin or destinaton of the tax revenues. This can lead to misunderstandings. The procedure practised in the European Union is very complex and has many shortcomings. It is not possible here to look at ways of creating an efficient European turnover tax system. See Schwager, Robert (2000): EU kommt bei der Mehrwertsteuer nicht voran, in EU-Magazin No. 6, pp. 16-17.

Problems in applying tax principles to e-commerce

The scenario described above for collection transactions also illustrates the basic problem dogging the taxation of turnover in e-commerce. For in e-commerce it is also generally not immediately recognisable from which country the customer orders – or downloads – the (digital) goods. The internet cuts transaction costs, drastically in some cases. Differences between tax rates are therefore going to be exploited to a greater extent than in conventional transactions. However, the resultant tax shortfalls and competitive distortions are frequently exaggerated, because only a fraction of e-commerce turnover is in fact problematic.

Turnover tax rates* EU member states

Denmark	25.0
Sweden	25.0
Finland	22.0
Belgium	21.0
Ireland	20.0
Italy	20.0
Austria	20.0
France	19.6
Netherlands	19.0
Greece	18.0
United Kingdom	17.5
Portugal	17.0
Germany	16.0
Spain	16.0
Luxembourg	15.0

*Standard rates

In turnover taxation, it is necessary to distinguish between two categories of e-commerce: **online turnover** and **offline turnover**. The lion's share of e-commerce falls into the latter category and poses no tax problems. Offline turnover refers to transactions where the order is placed electronically, i.e. online, but delivery is made in the traditional, physical form, i.e. offline. As an example: a TV set is purchased on the internet and delivered to the consumer. Since the customer's postal address is needed in order to despatch the goods the destination principle can be applied. Offline turnover is taxed in the same way as conventional transactions.

Only online turnover presents a tax problem

A tax problem does arise, though, with online turnover, where both ordering and delivery are by electronic means. This is the case with fully digitised goods such as music, videos, computer software or photos. It is virtually impossible for the seller to identify the country from which the order has come if the buyer refuses to say. The buyer's e-mail address does not necessarily reveal where he or she lives and payment can also be made without any indication of the place of residence. If the buyer does not reveal this information voluntarily, the seller cannot know the turnover tax rate in the country of destination. It is therefore practically impossible to apply the destination principle. If the turnover tax is not to be waived entirely, the origin principle has to be applied instead.

Practically impossible to apply destination principle

Current German law on e-commerce

Current legal situation is unsatisfactory

At present, the law in Germany is not tailored to cope with the difficulties of registering online transactions for turnover tax purposes.[4] Under the current rules, the place from which products are supplied is the relevant location. Online turnover is classified as services, for which the location of the supplying company (or its permanent establishment) is the location at which the turnover is taxed, in accordance with the origin principle. In certain cases, though, the tax is payable instead at the location to which the services are supplied, i.e. the place of the recipient. Under the Turnover Tax Act (*UStG*; section 3a, subsect. 3 and 4) this applies if the buyer is either an entrepreneur (business-to-business, B2B) or an end-consumer (business-to-consumer, B2C) resident in a country outside the EU. This means that in Germany there are **five typical cases of online turnover**:[5]

[4] A detailed overview of the tax-law issues relating to e-commerce is given in Lange, Hans-Friedrich (2001): Umsatzsteuerfragen beim E-Commerce, in: Der Betrieb, Heft 16, April 20, 2001, pp. 831-836.

[5] For detailed rules, see the German Ministry of Finance's "Online-Leitfaden zum Thema "E-Commerce and Steuern"", http://www.bundesfinanzministerium.de/Steuern-und-Zoelle/Electronic-Commerce-.767.7326/.html

Five typical cases in taxation of online turnover

1. A German company sells goods to a German company (B2B) or a German end-consumer (B2C). Turnover tax is to be charged at the German rate of 16%.
2. If goods are sold to a company (B2B) resident outside Germany but within the EU, the sale is tax-free. The foreign company is subject to the turnover tax regulations in its country of residence.
3. If the goods are exported by a German company to an end-consumer in another EU member country, German turnover tax has to be imposed; the origin principle applies. Similarly, a German consumer pays the turnover tax of the EU member country in which the supplying company is resident.
4. If the goods are sold to a company (B2B) or end-consumer (B2C) outside the EU, the sale is tax-free; the purchase is subject to the rules of the destination country.
5. If goods are sold from a non-EU country to a buyer in an EU member state, a distinction has to be made on the buyer side between companies and individuals. In the case of individuals (B2C) the law of the exporting country, and hence the origin principle, applies. Deliveries to companies (B2B) are tax-free in the country of origin and subject to the law of the country of destination.

For end-consumers in the EU, the origin principle applies ...

From this list it can be seen that for end-consumers in the European Union cross-border transactions are always taxed on the basis of origin. Internationally, this gives rise to tax-induced price differences that may distort consumer decisions. All other factors being equal (same quality, same net price etc.) – and since transaction costs in e-commerce are negligible – buyers will choose a supplier from the country with the lowest rate of turnover tax.

... but origin principle leads to tax-induced price distortions

Within the EU, countries such as Luxembourg and Germany therefore have a competitive edge owing to their low turnover tax rates (see table, p. 4). But countries in which e-commerce turnover is tax-exempt are at an even greater competitive advantage. The USA is the most important of these: US companies can provide customers worldwide with digital goods free of tax. All other factors being equal, European consumers will generally choose a supplier from the USA. So in practice online turnover is largely tax-free for EU consumers, too.

USA has considerable competitive advantage

Distortion of competition favours e-commerce at expense of conventional business

Besides this regional distortion, there is also a distortion between online and offline products. When a CD is bought in Germany, 16% turnover tax is charged. But if the music is downloaded (legally) from the internet, it is tax-free.[6] For the tax authorities, both the regional substitution and the substitution between online and offline products means a loss of tax revenues. As e-commerce expands this loss could become considerable.

EU directive of 2002

EU directive ...

These distortions of competition prompted the European Commission to seek a new solution for the taxation of e-commerce. This led to an **EU directive**[7] that was adopted by the Council of the European Union on February 12, 2002.

[6] It must be remembered, though, many of the goods and services that can be digitised – especially music – can currently still be downloaded free of charge (even if often illegally), which makes the question of taxation irrelevant. The question of the assertability of ownership rights would appear to be more important.

[7] See Council Directive 2002/38/EC of 7 May 2002 and Council Regulation (EC) No. 792/2002 of 7 May 2002.

Under the directive the destination principle is to apply in all cases in future. The rules have therefore been changed as follows:

... demands that non-EU providers register in an EU country in order to trade with EU consumers ...

1. Companies from non-EU countries must charge turnover tax at the rate applicable in the customer's country. For this purpose they will be required to register in an EU member country of their choice and to pay the tax receipts to the tax authority of that country. The revenue will be re-allocated to the country in which the consumer is resident, so that it accrues to the country in which the services are consumed.

... and lifts the obligation on EU providers to charge turnover tax to recipients outside the EU

2. EU suppliers no longer have to charge tax on turnover in markets outside the EU.

Legally, this will largely eliminate the allocative distortions that have existed up to now – both between EU and non-EU suppliers (especially from the USA) and between online and offline turnover.

Criticism: directive unlikely to solve problems

EU directive satisfies systemic requirements ...

The EU directive needs to be assessed on the basis of systemic and practical criteria. Systemically, it is clear that e-commerce must not be subject to different rules than conventional business. The decision whether to buy a product or service on the internet or in the conventional way should not be distorted by tax considerations. Similarly, the aim should be to achieve international competitive neutrality: unequal treatment of domestic and foreign residents should be eliminated. Measured on these points, the directive satisfies the systemic requirements.

... but will lead to high costs ...

The assessment on practical criteria is less positive. It is necessary to look at the compliance costs that tax measures entail for the tax authorities and taxable persons. These costs have to be weighed against the potential tax revenues and the allocative advantages of equal tax treatment. The required registration of foreign suppliers will mean considerable administrative expense. Contrary to the original plans, companies with turnover of less than EUR 100,000 will also be obliged to register. This will probably lead to many giving up their business activity in the EU, at least officially.

... and be ineffective in practice

Even more serious than the high **administrative expense**, though, is the fact that the directive will probably be **ineffective in practice**. While the new rules establish a legal framework for the taxation of e-commerce, observance of the law will depend on the business partners. The nature of the internet makes it possible for astute buyers and sellers to ignore the regulations without being prosecuted.

For one thing, foreign suppliers cannot be forced to register in an EU member country. They can still continue to do business without interference from European authorities and free of turnover tax even if they do not register. Secondly, the providers of online services only know the customer's country of residence if he reveals it. If the entire transaction – order, payment, delivery – is handled online, the customer can keep his residence secret. As already mentioned, the country of destination is not necessarily evident from his e-mail address or credit card number. Since the parties to internet transactions cannot be definitely identified, the tax authorities will have to rely – at least for the time being – on their cooperation.

In sum, it can be said that the European Commission is working in the right direction. But the recent directive hardly goes far enough. It is unlikely to solve the problems, especially when the volume of transactions increases. **A real solution would require political action not just within the EU but on a wider scale**.

Global arrangements are needed to solve the problem

The problem caused by the current tax practice is still small. In 2000 e-commerce (B2C) in Germany accounted for about 0.5% of total retail turnover (USA: 1.0%). And only a fraction of this was the problematic type, namely pure online business: the amount was negligible. In relation to the current size of the problem, the public debate on the taxation of e-commerce is exaggerated.

E-commerce turnover in the USA and Germany: B2C

	USA (USD bn)	Germany (EUR bn)
Year		
1999	17.3	0.9
2000	24.1	1.6
2001	34.1	3.1
2002	47.8	5.0
2003	63.9	7.2
2004	82.9	9.9
2005	104.4	13.1
2006	103.3	16.9

Source: Jupiter Research

However, forecasts for the future development of e-commerce indicate that action is needed and justify the efforts being made by the different institutions (an increase in B2C e-commerce to 10% of total retail sales by 2010 is considered realistic). Comprehensive concepts that apply not only **de jure** but also **de facto** would be desirable. One possible approach would be to improve the means of identifying those participating in e-commerce.

Tax on profits

In the taxation of profits, the digitisation of value-added aggravates the problems of allocating profits internationally. The academic and legal discussion centres on the question whether an internet server is a „permanent establishment" (to which part of a company's earnings can be attributed for tax purposes). Under the **permanent establishment principle**, the total profits of a company that operates internationally are divided among its permanent establishments and then taxed in the country in which each permanent establishment is based.

If internet servers are permanent establishments ...

If internet servers were classified as permanent establishments in tax law, international companies would have new scope for optimising taxes. Companies in high-tax countries might try, with the help of an internet server, to shift profits to low-tax countries in order to avoid the higher domestic tax. And companies in low-tax countries could avoid making profits in high-tax countries, despite doing business there, by installing the internet server at home or in another country. This would be an enormous challenge for tax authorities, as the location of an internet server can be altered with no great difficulty.

... companies will have new scope to optimise taxes ...

... with corresponding consequences for tax authorities

International income taxation

In Germany and many other countries, tax is imposed on **world income**. All income of individuals and companies resident in these countries is taxed there regardless of where the income originated (residence principle). Non-residents, on the other hand, are generally regarded as having limited tax liability and are taxed according to the **source principle**, i.e. the income they earn in these countries is also taxed there. Since this combination of residence and source principles is practised internationally, income from cross-border activities is commonly subject to double taxation – if there is no international agreement on the division of tax responsibility.

In order to avoid **double taxation**, either the country of residence or the source country can exempt the income (**exemption method**), or the country of residence allows the income earned abroad to be deducted from the basis for the domestic tax assessment (**deduction method**), or the country of residence allows the tax paid in the source country against the domestic tax debt (**credit method**). Germany has concluded **double taxation conventions** with all its major trade partners under which profits earned at foreign permanent establishments are generally exempted from German tax.[8] Accordingly, losses at a foreign establishment cannot be offset against German profits.

Taxation of international companies - avoidance of double taxation

	Subsidiary	Permanent establishment
No DTC	Exemption	Credit
DTC	Exemption	Exemption

Permanent establishment principle raises problems[9]

For the taxation of profits from e-commerce the question whether an internet server is to be regarded as a permanent establishment is crucial. According to the German Income Tax Act (section 49, subsect. 1 (2)), foreign companies that maintain a permanent establishment in Germany have a limited tax liability in Germany. Similarly, German companies that maintain a permanent establishment abroad have a limited tax liability there. The permanent establishment principle has worked well in the past in the taxation of international companies and has been practised for over 100 years. It looks, though, as if e-commerce is going to put it to a new test.

The applicability of the principle to e-commerce is the subject of intense debate in tax literature. At the OECD, too, working groups have on several occasions investigated whether a server can be classified as a permanent establishment. The outcome is not clear-cut in either case. In Germany, guidance is usually sought in the Federal Fiscal Code and in the **OECD Model Tax Convention** for the avoidance of double taxation.

„Fixed place of business“ and „serving“ the business activity as criteria for permanent establishment

According to the definition in Section 12 of the German Fiscal Code, a permanent establishment „is any fixed place of business or facility that serves the activity of an enterprise". The place of effective management, branches, goods stores and points of purchase or sale are cited as examples. Whether an **internet server** can be classified **as a permanent establishment** as defined by the tax code must be examined on the basis of two criteria:

Is a server a permanent establishment? OECD does not give clear-cut answer

- Is it a fixed place of business?
- Does the place of business „serve“ the activity of the enterprise?

A „place of business or facility“ may be interpreted as any physical object or any combination of physical objects that can form the basis of entrepreneurial activity. The physical nature as such is decisive: there are no structural specifications. Mines or quarries, for instance, are permanent establishments according to Section 12. The place of business must also have a certain degree of permanence and a link with a specific geographical point on the earth's surface. This means that mobile places of business such as movable market stalls are permanent establishments, but satellites are not. Internet servers fulfil these criteria for a fixed place of business. In order to qualify as a permanent establishment under German law the place of business must also serve the company's activity. In e-commerce an internet

[8] In contrast, Germany has not concluded double taxation conventions with very low-tax-countries.

[9] For an in-depth examination see Portner, Rosemarie (2001): Ertragsteuerrechtliche Aspekte des E-Commerce, Institut "Finanzen und Steuern" e.V., IFSt-Schrift No. 390.

server performs the core function in sales operations and is an elementary factor of production. There is hence no doubt that the server serves the activity of the enterprise.

The OECD Model Tax Convention[10] goes further than the German Fiscal Code.[11] According to Article 5 a permanent establishment must be a fixed place of business through which the business of an enterprise is **wholly or partly** carried on. Various facilities which are **not** considered to be permanent establishments are also listed. These include facilities used solely "for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise". This could be important for the taxation of e-commerce since a server, viewed in isolation, is mostly little more than a storage and delivery facility. It is thus unlikely that moving a server abroad without accompanying personnel would satisfy the OECD requirements for a permanent establishment.

Is personnel a requirement?

Schleswig-Holstein fiscal court has classified server as a permanent establishment

The significance of personnel for the classification of a server as a permanent establishment is still controversial. Is a server that fulfils both of the above criteria but has no personnel a permanent establishment? An OECD working group (Business Profit Technical Advisory Group, TAG) published a discussion paper in 1999 and another in 2000 which examined, among other topics, the need for human intervention – without coming to a definite result.[12]

In Germany, the **fiscal court of Schleswig-Holstein** was the first court to rule on the question whether a server without personnel is a permanent establishment.[13] A German telecommunications agency had provided its Swiss customers with information, at a fee, through a server installed in Switzerland. The server, which is owned by the company, is installed in rented premises and is not staffed. The court concluded that the server was a permanent establishment and that the profit attributable to it had therefore to be taxed in Switzerland.

In summing up, the court cited Article 5 of the OECD Model Tax Convention. It found that in the case in question the server was a fixed place of business and that it served the company's business activity. The double taxation convention between Germany and Switzerland thus applied, so the profits attributable to the server were exempt from tax in Germany.

The court's reasoning that a facility does not require personnel of its own in order to be a permanent establishment was based on the so-called **pipeline ruling** of the Federal Fiscal Court (30.10.1996) that a pipeline through which crude oil is transported can be a permanent establishment.

10 The Articles of the OECD Model Tax Convention on Income and Capital (2000), including methods for the elimination of double taxation, can be found on the OECD website at www.oecd.org/EN/document/0,,EN-document-104-3-no-15-5277-104,00.html.

11 For a very detailed discussion of the German term for permanent establishment, "Betriebsstätte", in the context of earnings taxation see Portner (2001), op. cit., p. 31ff.

12 Information on current work and developments in tax and electronic commerce can be found on the OECD website at http://www.oecd.org/EN/home/0,,EN-home-101-nodirectorate-no-no-no-22,00.html

13 Schleswig-Holstein fiscal court, Aktenzeichen: II 1224/97, decision of September 6, 2001: Begründung einer ausländischen Betriebsstätte durch Installation eines Rechners, Berechnung der anteiligen ausländischen Einkünfte. Appeal to Federal Fiscal Court, Aktenzeichen I R 86/01.

The decision is not yet final as the tax office has appealed. The final ruling on the case will be handed down by the Federal Fiscal Court. In legal circles there is doubt that the decision of the Schleswig-Holstein court is tenable and whether sufficient account was taken of the significance of human intervention.[14]

Decision has been appealed

Fiscal importance is limited

If a server is owned by the company, has a certain degree of permanence and a fixed link with the earth's surface – as can generally be assumed – then this argues heavily for the classification of the server as a permanent establishment in tax law.[15] If the server is also staffed, then there is no further doubt that it is a permanent establishment.

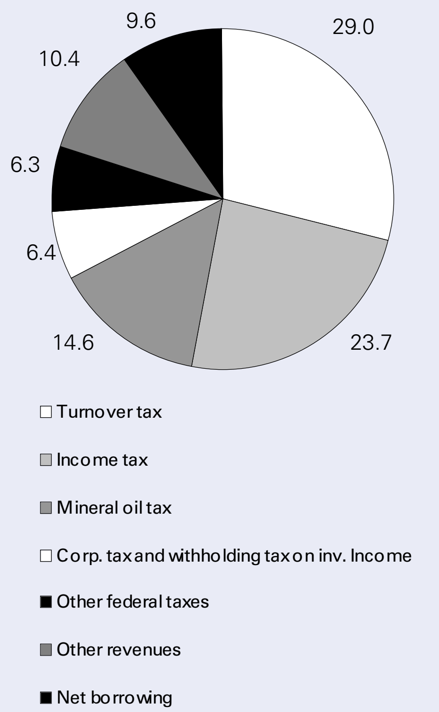
At first glance it would appear as if this narrows the basis for corporate taxation in the company's home country. It looks as if companies can easily attribute profits to operations in lower-tax countries and thus – where double taxation treaties exist – avoid domestic taxes.

Scope for tax optimisation has only limited fiscal consequences

Closer analysis shows, however, that fears in this respect are exaggerated, at least as things stand at present. As with turnover in e-commerce, it is only the profit on the digital portion of business that poses a tax problem. Most of this is earned in online e-commerce, i.e. on transactions which, as described above, are fully digitised from order through delivery to payment.

The only relevant aspect in offline e-commerce is that the server used in presenting the product range and placing the order might be located abroad. The (non-digitised) merchandise is delivered by conventional means. This means that for tax purposes the profit has to be divided between the server as (foreign) permanent establishment and the (domestic) company. The proportion of profits corresponding to the server's share in total value-added has to be attributed to it. As in conventional business, this requires transfer prices to be established, on the basis of which all profit is attributed to the company's various establishments.[16]

Federal revenue, Germany 2001 (%)



Source: BMF

Summary and outlook

Politicians fear that in a fully globalised world the state would largely lose control of the tax base. Goods, services and factors of production are mobile, and drastically reduced transaction and mobility costs would lead to international differences between tax rates being rigorously exploited. In light of this threat, it is feared that tax policies would pursue a race to the bottom – with damaging effects on prosperity. The fear is all the greater because this would affect turnover tax, which is one of the highest-revenue taxes.

---

[14] See Cadosch, Roger M. (2002): Ist ein Server eine Betriebsstätte im Steuerrecht?, in: Jusletter of January 21, 2002.

[15] Nonetheless, leading tax lawyers are of the opition that considerable argumentation is required in order to arrive at the conclusion that an individual server without specific staff is indeed a foreign permanent establishment. Arndt, H.-W. (2001): Die Besteuerung des E-Commerce, in: E-Commerce, Kurz/Reinhardt/Stromsdörfer (ed.) pp. 270-288, here p.273.

[16] For a discussion of transfer pricing in e-commerce, see Portner (2001), op. cit., p. 89ff and Watrin, Christoph (2001): Die Besteuerung des internationalen E-Commerce und die Theorie der Firma, in: WISU 6/01, pp. 834-840.

The tax system should treat electronic and conventional business equally. E-commerce should be neither promoted nor discriminated against in taxation. Owing to technical aspects of the internet, however, numerous problems arise in the practical application of established tax principles. The possibility cannot be ruled out that the taxation of e-commerce may remain systemically unsatisfactory over the medium term, and perhaps even long term.

In the political debate, though, the fact is often overlooked that the problem mainly relates to the digitised part of e-commerce. The share of total B2C e-commerce in retail turnover is only small and the online share is almost negligible.[17] So, for the tax authorities, the taxes on e-business are not (yet) a significant item. That may change in the future.

The question of **competitive neutrality** has also to be considered. If e-commerce is tax-advantaged owing to practical problems – in the recording of business for turnover tax purposes, for example – this could lead to distortions in production structures. A look at online reality at present, though, suggests that the allocation of resources is influenced more by the inability of owners to assert their property rights than by the taxation of e-commerce.[18]

Global rules are needed for effective solutions

This does not mean that all is well in tax policy. But hasty decisions are not the answer, nor are national reforms. Even EU-wide regulations are inadequate for a medium like the internet. **Under the circumstances, the worldwide web requires worldwide answers in taxation.** One possible approach in seeking a solution would be to improve the means of identifying those participating in e-commerce.[19]

Jörn Quitzau, +49 69 910-31890 (joern.quitzau@db.com)

17 Rough estimates indicate that, theoretically, about 30% of the GDP of the industrial countries could be traded electronically. See Speyer, Bernhard (2001): E-commerce and the WTO, p. 4f, in: E-conomics, December 4, 2001, Deutsche Bank Research.

18 Deutsche Bank Research issued a publication devoted entirely to the framework conditions for e-commerce. See Schaaf, Jürgen (2002): Framework conditions for e-commerce: all in good order?, in: E-conomics No. 24, February 11, 2002, Deutsche Bank Research.

19 Digital signatures could help in solving the problem. For further information see Schaaf, Jürgen (2002), op. cit.

Economics

ISSN 1619-3245

All our publications can be accessed, free of charge, on our website **www.dbresearch.com**.
You can also register there to receive our publications regularly by e-mail.

For the print version please get in touch with:

Deutsche Bank Research
Marketing
60272 Frankfurt am Main
Fax: +49 69 910-31877
E-mail: marketing.dbr@db.com

Printed by: HST Offsetdruck Schadt & Tetzlaff GbR, Dieburg.
Print: ISSN 1619-3245 / Internet: ISSN 1619-3253