

## A SINGLE CURRENCY, A SINGLE TAX POLICY?

*Companies are becoming ever more mobile within Europe's unified monetary zone, and States may use taxation to influence their location of production. Scenarios constructed to examine this issue show that there could be risks of tax competition to attract companies. Nevertheless, it would be possible to move towards some form of European tax harmonisation from a fiscal point of view. A study of the United Kingdom indicates that such harmonisation would strengthen the attractiveness of Britain as a location, but would cause the euro-zone to lose about half of the Foreign Direct Investment flows generated by the single currency.*

By suppressing internal exchange rate risks within the euro-zone, the single currency has increased capital mobility within the zone. This should favour European growth, as capital should be allocated where its productivity is greatest.

Simultaneously, the single currency reinforces competition between member states in attracting investment from other European countries and elsewhere. In particular, it might lead to tax competition, with each country in the euro-zone seeking to attract Foreign Direct Investment (FDI) through generous taxation. This competition may be positive if it leads Member States to improve the efficiency of their public sectors<sup>1</sup>. Nevertheless, in the absence of tax coordination between States, multinational companies could play on such competition to escape the financing of public spending, notably public works and education from which they benefit fully. Having rationalised public production, States would then have no choice but to cut their production, or to finance it out of the tax bases which are the least mobile, such as poorly-qualified labour<sup>2</sup>.

Thus, tax cooperation is not so much justified by the desire to reduce existing disparities (which may compensate for rents or location handicaps, or reflect different political choices of public policy<sup>3</sup>). Instead, it is rooted in the necessity of providing a framework for tax competition in order to protect the least mobile tax bases and to preserve the production of public goods.

Estimating the impact of taxation on direct investment flows runs up against a number of serious obstacles, both statistical and methodological. Nevertheless, approximated sizes can be provided, which highlight the consequences of generalised tax competition in Europe, and to measure the impact of harmonisation. Furthermore, this estimation makes it possible to draw out certain conclusions which are specific to the United Kingdom, at a time when it is contemplating entry into the euro, while resisting pressure by its European partners to harmonise taxes on savings.

### ■ The Impact of Taxation on the Location of Production

Various taxes may have an impact on the choice of location (see box). The most obvious is corporate tax, which experienced some preliminary steps to harmonisation with the European "Parent Company-Subsidiary" Directive, of the 23 July 1990<sup>4</sup>. Companies are also sensitive to unit wage costs, and hence to social security contributions, especially employers' contributions.

However, the impact of high tax rates varies depending on whether it is applied uniformly, or whether exemptions are allowed (free-ports, bonded trade zones etc.), and according to profit assessment rules (depreciation allowances etc.). Thus, while nominal

1. See A. Boss, "Do We Need Tax Harmonisation in the EU?", *Kiel Working Paper*, n°916, March 1999.

2. See R. Hugounenq, J. Le Cacheux and T. Madiès, "Risques de concurrence fiscale en Europe", *La lettre de l'OFCE*, No 189, September 1999.

3. See S. Guimbert, "La Fiscalité, détermination de l'attractivité ?", note de la Direction de la Prévision, 25 October 1999.

4. See OFCE, *La concurrence fiscale en Europe*, report for the French Senate, April 1999, p 50. The Parent-Company-Subsidiary Directive restricts multiple taxation of profits by suppressing withholding taxation and setting up tax exemption or credit schemes for repatriated profits. It is applied, under certain conditions, to company dividends: but neither paid interest, nor inter-company payments are included.

### BOX - THE ESTIMATED EQUATION

Estimating the effects of taxation on FDI runs into all the problems linked to the composite and incompletely-harmonised nature of the data on FDI (investments in social capital, reinvested profits and "other operations" including lending activities; different accounting techniques across countries), as well as problems relating to delimiting the taxes that are to be taken into account. These vary, for example, depending on whether FDI is linked to productivity activities or to company headquarters. Furthermore, company accounting practices, which seek to optimise taxation, may reduce the impact of disparities in taxation across the different locations in which production is situated (only the distribution of tax receipts between States is then affected).

Nevertheless, estimating the effects of taxation on FDI flows remains useful, to obtain some idea of their magnitude.

The results of our estimates are given in the table below. Effective taxation of companies and of salaries influences the inflows of FDI negatively and significantly: the higher the rate of taxation in country *i* with respect to country *j*, the lower inward FDI flows in country *i*. Similarly, it seems that the single currency should have a positive impact on the FDI flows between European countries, as less volatility attracts FDI.

Table - Results of the Estimation

Explanatory variable	Estimated Coeff.	Explanatory variable	Estimated coeff.
IS <sub>ij</sub>	-0,437**	SPIB <sub>ij</sub>	0,005**
COT <sub>ij</sub>	-14,39*	DPIB <sub>ij</sub>	-9,341**
TCR <sub>ij</sub>	-0,102#	DIST <sub>ij</sub>	-0,002**
VOL <sub>ij</sub>	-0,733#	COM <sub>ij</sub>	0,064#

\* à 5%, # à 10%, \*\* significant à 1%.

**Tax variables.** IS<sub>ij</sub>: the spread between *i* and *j* (in % points) of corporate tax relative to gross trading profit; COT<sub>ij</sub>: the relative weight of employers' social security contributions in the payroll, in country *j* relative to country *i*.

**Exchange rate variables.** TCR<sub>ij</sub>: the level of the real exchange rate between *i* and *j* (a rise indicates a depreciation of *i*), calculated on the basis of output prices and lagged by one year (which avoids the problem of endogeneity)\*; VOL<sub>ij</sub>: the coefficient of variation of the monthly, nominal exchange rate between *i* and *j*, over one year (in %).

**Gravitational variables.** SPIB<sub>ij</sub>: the sum of GDP of the investor country and of the market in the host country (the country itself or weighted regional GDP for the EU15 countries); DPIB<sub>ij</sub>: the standardised difference between the GDP in *i* and *j* (the standardisation seeks to withdraw the impact of scale, which is already present in the sum variable); DIST<sub>ij</sub>: geographic distance between *i* and *j*; COM<sub>ij</sub>: share of trade between *i* and *j* in the GDP of *i* (in %).

Apart from fixed effects in the host country *i*, the equation includes three dummy variables aimed at making up for missing tax data in certain years, which leads to artificial breaks in the series.

\*The effect of the real exchange rate is ambiguous, *a priori* a real appreciation of the currency *i* reduces FDI inflows if the motive of investment is production for re-export. It raises FDI inflows if the investor seeks to service the local market. The second case is more probable, within the OECD, given the nature of FDI, which is made up essentially of marketing and service activities.

in the United Kingdom, despite the fact that the rate of taxation is one of the lowest in Europe (apart from Finland and Sweden, which are not included in the Graph). Marked differences are also to be found between effective rates of employers' social security contributions, as well as between nominal and effective rates.

To assess the consequences of taxation on production location, the authors have estimated the sensitivity of direct investments to these two taxes, for twelve OECD countries<sup>5</sup>. The estimation is carried out using bilateral data, for the period 1984-1996 (see Box). The tax rates used are the effective rates. The econometric equation also includes the real exchange rate and gravitational variables (variables of country size, trade and geographic distance), as well as a measure of exchange rate volatility to allow the impact of the single currency to be isolated.

## Harmonisation or Competition?

The equation estimated is used to measure the impact of FDI flows on harmonisation and tax competition. Harmonisation is taken to mean the equalisation of effective tax rates around the (non-weighted) average of the EU15. The tax competition scenario involves aligning effective rates with the lowest rate among the Fifteen: i.e. Spanish corporate tax, and the Dutch social security contribution rate<sup>6</sup>. For each country, a change in taxation will affect the quantity of inflows and outflows of FDI to practically the same degree<sup>7</sup>, though obviously in opposing directions. For example, a cut in taxes in the Netherlands relative to Spain will raise Spanish FDI into the Netherlands and reduce Dutch FDI flowing to Spain by a similar amount. The variation of the net flow (inflows less outflows) is therefore about twice that recorded for each of the two gross flows. The results of the two scenarios are provided in Table 1. This table states the extra FDI inflow (expressed as a % of total investments received by the OECD in 1995) associated with tax harmonisation or tax competition.

To begin with, it may be noted that tax harmonisation among the EU15 countries does not affect the total amount of inward FDI received in this zone. Only the distribution across countries is affected. For example, a harmonisation of corporate tax (CT) in the EU, around its average level, would lead to falls in FDI to Spain and Germany, which presently have the lowest effective tax rates, and would favour flows to the Netherlands and the United Kingdom, where tax rates are higher.

In contrast, tax competition among the EU15 would attract American and Japanese FDI towards Europe, as average taxation would fall. But the distribution of gains

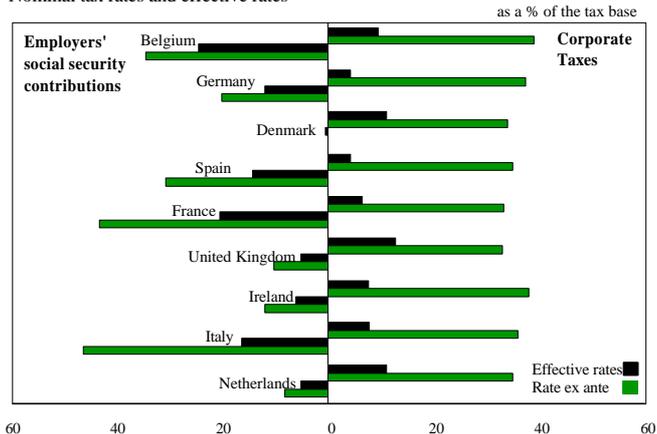
corporate tax rates in Europe have largely converged, effective rates would appear to differ greatly, reflecting differences in tax bases (see Graph). Corporation tax revenues as a share of gross trading profit are the highest

5. The United States, Japan and the ten members of EU15 included in the adjoining tables. Belgium and Luxembourg are considered as a single country for FDI data.

6. The suppression of exemptions, special tax regimes and other means of tax evasion, as set out in the "code of conduct" approved by the Ecofin Council the 1st December 1997, tends towards harmonisation of effective tax rates and not nominal rates. Real competition, in contrast, ought to lead to a convergence of tax rates around zero: this case, which could only occur over the very long term, has been ignored here.

7. To one linearisation factor for social security contributions.

Graph - Corporate Taxes and Employers' Social Security Contributions  
Nominal tax rates and effective rates\*



\* Nominal rate: the tax rate on taxable profits in 1997, the rate of employers' contributions on the average employee's wage in 1996.  
Effective rate: revenues of corporation tax/gross trading profit, employers' social security contributions.  
Sources: OECD and OFCE

and losses would be similar to that stemming from harmonisation. The gains for the EU15 as a whole (6.4% in the case of corporate tax competition), would be spread across countries: each country would attract more FDI than would be the case under harmonisation.

Subsequently, it may be noted that, in a majority of cases, countries which lose out through CT harmonisation will benefit from the harmonisation of employers' social security contributions (ESSCs). This is due to the fact that countries with the lowest effective rates of CT generally have the highest effective ESSCs (see Graph). The United Kingdom has a higher-than-average effective rate of corporation tax, but a low level of social security contributions. Along with the Netherlands, the UK is in a special situation: it would benefit from tax harmonisation (+4.4%) and lose from social harmonisation (-1.9%), whereas the opposite would

Table 1 - Harmonisation or Tax Competition: the Effects of both Scenarios on Net Flows of FDI (inflows less outflows), as a % of total FDI inflows in the 12 countries in the OECD, in 1995\*

Country	Harmonisation		Competition	
	CT	ESSC	CT	ESSC
Germany	-4,1	0,1	-3,3	0,5
Belgium-Luxembourg	1,3	3,9	2,0	4,2
Spain	-4,1	0,8	-3,4	1,1
France	-1,8	2,6	-1,0	2,9
Ireland	-0,7	-1,7	0,1	-1,3
Italy	-0,5	1,4	0,3	1,8
Netherlands	2,8	-1,9	3,5	-1,5
Euro-zone	-7,0	5,1	-1,8	7,6
Denmark	2,6	-3,4	3,4	-3,0
United Kingdom	4,4	-1,9	5,2	-1,5
EU15	0,0	0,0	6,7	3,1
OECD	0,0	0,0	0,0	0,0

\*This is a sample of countries (see note footnote No5) from which aggregates have been constructed for the euro-zone (8 countries), EU15 (10 countries) and the OECD (12 countries); 1995 is the last year for which data is available for all countries  
Source: authors' calculations.

happen for the euro zone as a whole (-7% and +5.1% respectively). It may thus be thought that harmonisation would be easier if it addressed both forms of taxation at the same time, as this would help balance out the gains and losses across countries in terms of FDI.

However, the financial amounts involved are generally not comparable, from a budgetary point of view: employers' social security contributions are nearly always a far greater source of income than corporate tax. Harmonisation of ESSCs would lead to a cut in tax revenues of more than 10% in France and Belgium (see Table 2). In comparison, the harmonisation of CT would lead to a rise in tax revenues in most EU15 countries, without receipts falling much in those countries that would have to cut their effective rates.

As for tax competition, it would lead to budget losses in all countries, apart from those with the lowest rates - if it is assumed that all other countries will align themselves on these rates. The resulting losses would be manageable for competition in CT, but not for competition in

Table 2 - The Impact of Harmonisation and Tax Competition on Tax Receipts as a % of total, national tax receipts (1995)

Country	Harmonisation		Competition	
	CT	ESSC	CT	ESSC
Germany	2,7	-0,5	-0,02	-11,3
Belgium - Lux.	-0,1	-10,4	-0,6	-15,6
Spain	5,5	-4,5	0,0	-15,8
France	1,0	-11,7	-1,3	-20,1
Ireland	0,8	8,4	-3,9	-1,1
Italy	0,5	-6,1	-4,0	-14,3
Netherlands	-1,9	8,3	-4,7	0,0
Euro-zone	1,8	-4,6	-1,2	-13,8
Denmark	-1,0	12,6	-2,5	5,3
Unit. Kingdom	-0,1	11,8	-0,2	-0,1
UE15	1,4	-2,0	-1,4	-11,5

Source: authors' calculations.

ESSCs, which could lead to losses equivalent to 20% of total tax receipts in a country like France.

Thus, the risks of competition exist mainly for corporate taxation, and it is in this area harmonisation could occur.

## What Strategy Should the United Kingdom Adopt?

The discussions, at the end of 1999, among the Ministers of Finance concerning the possible coordination of taxation on savings<sup>8</sup> ran into opposition from Luxembourg, and especially from the United Kingdom. This issue is sufficiently sensitive for the discussions to have established a link between the UK's possible entry into Monetary Union and tax harmonisation<sup>9</sup>. The method used above also allows comparison of the effect

8. The proposed Directive offers the choice of a withholding tax of 20% on earnings paid to non-residents, or the exchange of information among partners, which would allow the latter to apply their own taxation.

9. See the declaration by the Italian Minister of Finance, reported in the *Financial Times*, 18 November 1999.

Table 3 - The Impact of the Euro on FDI Inflows  
as a % of total FDI Inflows in the 12 countries of the OECS (1995)

Country	Impact of the Euro 11	The effect of the UK and DK entering the euro-zone
Germany	0,7	0,3
Belgium-Luxembourg	1,1	0,3
Spain	1,1	0,3
France	0,8	0,3
Ireland	0,8	0,3
Italy	2,3	0,3
Netherlands	0,7	0,3
<b>Euro-zone</b>	<b>7,5</b>	<b>1,8</b>
Denmark	0,3	0,7
United Kingdom	0,1	1,5
<b>EU15</b>	<b>7,9</b>	<b>4,0</b>
OECD	8,2	3,9

Source: authors' calculations.

on FDI flows of the single currency, given various taxation scenarios.

Possible FDI flows are calculated, assuming that the exchange rates in 1995 among the member countries of the euro-zone had been constant, and if their volatility with respect to other OECD currencies had been equal to that of the mark<sup>10</sup>. The results (given in Table 3) show that the single currency substantially raises inward FDI to the various countries of the euro-zone, equivalent to 7.5% of the flows recorded by the OECD countries as a whole, or equivalent to twice the impact CT harmonisation would have on FDI flows into the zone<sup>11</sup>. It should be noted that the single currency has the same impact on inward FDI inflows and outflows for each country<sup>12</sup>. Thus, EMU makes it possible to maximise the

profitability of European capital, and to raise trade within the zone<sup>13</sup>.

For the United Kingdom, entry into the euro-zone would raise FDI inflows and outflows by an amount equivalent to 1.5% of total flows, similar to the estimated impact of corporation tax harmonisation.

Overall, the harmonisation and single currency issues appear to have a similar impact on the attractiveness of the United Kingdom for FDI. In particular, the UK would gain from a harmonisation of effective corporation tax rates (via a harmonisation of tax bases), which would attract foreign companies. Such a proposals is likely to go down better on the other side of the Channel than cooperation relating to the taxation of savings, which would affect the City of London first and foremost. But, the UK's European partners will perhaps be less enthusiastic than they are concerning the taxation of savings, as they would lose out about half of the gains (in FDI inflows) that are to be expected from adoption of the single currency, even though they may be expected to benefit from higher tax revenues.

**Agnès Bénassy-Quéré**

BENASSY@CEPII.FR

**Amina Lahrèche-Révil**

LAHRECHE@CEPII.FR

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10. The euro is assimilated to the mark, for the sake of simplicity. The impact of the single currency on the real exchange rates is unknown (it is assumed that inflation differentials among the countries of the euro-zone are cancelled out under EMU).

11. It should be recalled that the gross effects of the various tax scenarios are equivalent to about half the net effects.

12. The exchange rate volatility for  $i$  with respect to  $j$  is the same as for  $j$  with respect to  $i$ .

13. Within the OECD, FDI would seem to be complementary to trade. See L. Fontagné and M. Pajot, "Investissement direct à l'étranger et échanges extérieurs : un impact plus fort aux Etats-Unis qu'en France", *Economie et statistique*, n° 326-327, 1999.

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EDITORIAL OFFICES

Centre d'études prospectives  
et d'informations internationales,  
9, rue Georges-Pitard  
75015 Paris.  
Tél. 33 (0)1 53 68 55 14  
Fax : 33 (0)1 53 68 55 03

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Jean-Claude Berthélemy  
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Agnès Chevallier  
Stéphanie Guichard

TRANSLATION:  
Nicholas Sowels

DTP:  
Annick Hutteau

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