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Russell Thomson

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Russell Thomson

**Melbourne Institute of Applied Economic and Social Research, and
Intellectual Property Research Institute of Australia (IPRIA),
The University of Melbourne**

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Melbourne Institute of Applied Economic and Social Research

The University of Melbourne

Victoria 3010 Australia

***Telephone* (03) 8344 2100**

***Fax* (03) 8344 2111**

***Email* melb-inst@unimelb.edu.au**

***WWW Address* <http://www.melbourneinstitute.com>**

Abstract

This paper outlines tax policy details from 26 OECD countries between 1980 and 2006 and provides a summary quantitative measures of their relative generosity. Separate measures for the after-tax cost of labour, other current expenditure, machinery equipment and buildings and structures are presented and also a measure of tax policy applicable to multinational subsidiaries undertaking R&D on behalf of the parent firm. The purpose of this working paper is to make this data available for other researchers.

JEL classification: H25, O31

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1. Introduction

Tax policy is a traditional mechanism through which government influences the cost of private sector R&D. Measuring the effective R&D subsidy should incorporate the relevant rate of corporate income tax; rates of depreciation for different classes of expenditure as well as explicit incentive schemes such as augmented deduction allowances, credits and rebates. This paper outlines tax policy details from 26 OECD countries between 1980 and 2006 and provides a summary quantitative measures of their relative generosity.

Measures of the effective tax treatment of R&D are needed to empirically assess the effectiveness. Moreover, broader empirical studies of innovation, should ordinarily account for the effective tax treatment of R&D as they can be an important confounding factor. This is particularly relevant to evaluations of government grant and subsidy programs, higher education research appropriations and intellectual property right regimes. Since these policy levers all relate to inducing private sector R&D, they can be expected to be reformed at the same time. That is, different policies may well be correlated. For example, governments may introduce more generous R&D tax incentives while at the same time reducing direct government R&D grants.

Data on the average generosity of national tax treatment for R&D expenditures have been published by the OECD for some years (see OECD 2006 p.242).¹ The data presented here cover an expanded number of country-year observations calculated based on consistent methodology and assumptions. More importantly, unlike the OECD data, all background data used in the calculations are presented. This background data enable some novel applications. For instance, a series of present separate measures for the after-tax cost of labour, other current expenditure, machinery equipment and buildings and structures (which was used in Thomson and Jensen 2012). Also presented are measures of tax policy applicable to cross border R&D where the firm undertaking the R&D is domiciled in a different country to the firm which will own the resultant intellectual property (used in Thomson 2012).

¹ Unpublished OECD data are also cited in some studies (Guellec and Pottelsberghe 2003; Falk 2006)

2. The measure

The measures complied here are based on the tax component of Jorgenson's (1963) user cost of capital which was first adapted to R&D investment by McFetrdige and Warda (1983).² Variations of the methodology have been widely used to measure tax benefits for R&D at the firm, state and national level (see for example Bloom et al., 2002; Guellec and van Pottelsberghe, 2003; Wilson, 2009). The formula for the measure is given by

$$b = \frac{ATC}{1 - CIT} \quad (1)$$

where ATC is after tax cost of R&D allowing for reductions in corporate income tax liabilities that result from the expenditure; and CIT is the corporate income tax rate. The measure represents the before tax project hurdle rate i.e., the minimum before tax return the marginal R&D investment must generate to be financially viable after tax (Warda 2006). The most demanding component to calculate for the measure is the after-tax cost of R&D, which is discussed in some detail below.

The after-tax cost of R&D investment (denoted by ATC) can be expressed in general terms as:

$$ATC = 1 - NVT Deductable \times CIT - Credit$$

This states that a firm's after-tax cost is reduced by allowable deductions multiplied by the corporate income tax rate (CIT) as well as any explicit tax credits. The value of deductions is determined by: (1) the net present value of the stream of allowable claims; and (2) any augmented deduction policy. Augmented deduction is where claimable amounts are multiplied by a factor greater than 100 percent. Note that firms receive an implicit subsidy if the rate of depreciation allowable for tax purposes is greater than the actual rate of depreciation of the intangible asset (technology) which the R&D investment created. Since R&D generally produces a stream of benefits persisting for some duration, allowing 100 percent of expenses to be deducted in the year they are incurred represents an implicit subsidy.

Allowable depreciation rates differ across different types of expenditure and by country. Previous authors, including the OECD, follow the assumption that that representative R&D investment is comprised of 90% current expenditure, two thirds of which represents the wages of researchers (60% total expenditure). The remaining 10 percent of total expenditure is assumed to comprise machinery

² The authors refer to the measure as the 'b-index' which is short for the benefit cost ratio at which an R&D investment opportunity becomes viable after tax (Warda 2001).

and equipment (M&E) and buildings and structures (B&S) in equal portions. This is reflective of the approximate composition of expenditure reported in industrial surveys (McFetridge and Warda 1983; Bloom et al. 2002). In this paper the tax price of each expenditure type is presented separately thereby allowing researchers to vary the weighting or otherwise use these measures separately. The tax price of international contract R&D reported in this document uses the standard weighting.

The allowable rate of deduction as well as eligibility to additional credits for each expenditure type was identified from a range of sources. In all cases in our sample, labour expenses could be deducted at 100 per cent in the year they are incurred (or at a higher rate where augmented deduction is allowable). The net present value (NPV) of deductions available for tangible capital depends on the allowable depreciation schedule, which is defined in the national tax code.³ Relevant augmented deductions are applied to the NPV determined by the allowable depreciation schedule.

A common type of policy, known as an ‘incremental scheme’, is where only R&D expenditure over-and-above a defined base level is eligible for credits or augmented deductions. A common way to define the base is the average expenditure in the previous three years. This type of incremental scheme presents a complexity to modelling the effective incentive power of tax policy. None of the R&D investment made by firms that do not increase their expenditure over time is eligible for any special treatment. For a firm which increases nominal spending, the marginal R&D dollar is eligible for the tax credit, but also reduces the share of future expenditure which will be eligible. Following past cross-country studies we model incremental schemes, where the base is defined as a trailing k -period moving average, the credit or deduction rate is multiplied by $1 - \frac{1}{k} \sum_{i=1}^k (1+r)^{-i}$ which reflects the marginal value of an incremental incentive for a firm with increasing R&D expenditure or equivalently the average share of eligible expenditure for a firm maintaining constant real R&D expenditure (see Richardson and Wilkie, 1995). Consistent with past cross country studies figures reported here use a fixed 10 percent discount rate.

³ The formulae used are: $NPV_{SL} = \frac{1}{T} \frac{1 - (1+r)^{-T}}{r/(1+r)}$ and $NPV_{DB} = d \frac{(1+r)}{(d+r)}$ for straight line and declining balance depreciation respectively, where r is the discount rate, or required rate of return.

In assembling the data, careful attention was paid to identify any special treatment or exemption for foreign contract R&D – any R&D which is financed by a foreign firm or where the resultant IP is vested with a company abroad. No exclusions based on foreign ownership were identified in any country. However, the tax systems in France, Korea and Switzerland allow, under some conditions, for R&D active foreign firms to be granted tax holidays (Rashkin 2007). Up until 2007 eligibility for the tax incentive in Australia depended on the resultant IP being vested with the researching firm, which means R&D performed for the MNE headquarters is not eligible (BIE 1993; ATO 2002). A special scheme for foreign contract R&D was introduced in Australia in 2007. The scheme in Portugal requires that the R&D be at least 25 per cent self-financed (IBFD 2004 p.154). No information regarding such exclusions in any other countries was identified. The absence of restrictions was confirmed in the case of Austria, Canada, Ireland and the UK (Canadian Embassy Berlin 2003; IBFD 2004; IRC 2005; McAlpine 2005). In some countries, including Belgium and France, taxpayers cannot claim R&D expenses that are contracted out to other firms (IBFD 2004). However, this does not appear to limit the contracted firm from claiming expenses. In the case of France, some ambiguity existed prior to 2007, though it seems firms conducting R&D under contract did claim the tax credit (DTT 2008).

All tax policy information and calculated measures are included the appendix. In the data table, CIT is the headline corporate income tax rate applied in calculations. The column entitled ‘labour’ reports the tax price of labour related R&D expenses (i.e., equation 1). Oth. Curr. is the tax price of other current (non labour) expenses. These are the same as labour expenses in all countries except where there exist special credits or deductions for wages and overheads or per employee (such as the Netherlands). M&E is the tax price of machinery and equipment used for the purposes of R&D and B&S is the tax price of buildings and structures. The final column entitled ‘Foreign’ reports a measure for tax price for R&D expenditure that applicable to cross border R&D, that is, where the firm undertaking the R&D is domiciled in a different country to the firm which will own the resultant intellectual property. The principal difference is that such R&D is not eligible for the Australian R&D tax concession. This measure uses the standard 60:30:5:5 weighting across expenditure types.

3. Caveats to the measures reported

The measure presented aims to capture the principal features of depreciation, deductions and special credits applicable to all large firms. It is important to acknowledge the limitations of the measure and potential sources of measurement error. These are outlined below.

The calculations assume that firms can benefit fully from the incentive, i.e., it assumes firms have sufficient tax liabilities to claim the full amount of R&D tax incentives in the current year. Also, the standard methodology does not consider caps and floors in the scheme. Observe that where caps are binding, the after tax cost of marginal expenditure is zero, while the average after-tax cost depends on by how much the cap has been exceeded. While the measure incorporates differences in rules relating to the eligibility of current and fixed capital assets, it does not incorporate subtle and complex differences in the definition of qualifying expenditure. The definition of eligible expenditure is generally based on the standards outlined in the *Frascati Manual* (OECD 2002a). Qualifying expenditure must commonly demonstrate characteristics such as technical risk, novelty and or creativity (Rashkin 2007). However, the definition of qualifying expenditure differs between jurisdictions. This is a particularly difficult measurement issue to address because tax law is not always perfectly codified. There is often scope for interpretation of guidelines by both claimants and administrative agencies. For the same reason identifying ‘typical’ depreciation schedules is also inherently subject to some measurement error.

The measures of R&D tax policy constructed here do not incorporate differences in tax treatment of dividends or withholding taxes on international transfers of profit. There are two important cases where interaction between these taxes and R&D incentives can reduce the effective value of R&D tax incentives to shareholders. The issue arises where shareholders receive tax relief on dividend income commensurate with the CIT already paid by the company. Dividend imputation systems (DIS) reduce the effective value of the tax incentives to shareholders have been in place in some countries over some of the study period including Australia, New Zealand, France and Canada. DIS allow shareholders receiving dividends to be allocated tax credits for CIT already paid on company profit. DIS aim to avoid double taxation of company profits. With complete imputation, taxpaying shareholders are indifferent to R&D tax incentives provided on company profit because a decrease in CIT liabilities, resulting from an R&D tax incentive policy, can lead to a direct increase in the tax paid on dividends. MNEs repatriating income can face an analogous ‘washout’ of host country R&D tax incentives (see Hall 1995b).

Several nations provide fiscal incentives with objectives other than purely inducing additional R&D investment. They offer incentives targeted at encouraging collaboration between domestic firms and either the government sector, the tertiary education sector or international research projects. For example, Denmark and Hungary offer incentives for collaboration with the higher education sector at 150% and 400%, respectively (Warda 2006 p.14). These are not modelled, primarily because there is no obvious way to model these in a comparable manner.

Finally, the measures do not reflect features of taxes levied by sub-national governments offer R&D tax incentives. This primarily affects federal systems of Canada and the United States.⁴ These sub-national policies were not modelled because of practical difficulties in collecting historical data on sub-national policies. Additionally, incorporating state-level incentive rates into national measures would require weighting tax policy against the proportion of national R&D performed in each region. Often state incentives reduce eligibility to national incentives meaning this is unlikely to be a serious limitation. For example, in the case of Canada, the figures estimated here are within 3 decimal places of recent estimates of the b-index for the state of Ontario published by the OECD.

4. Country tax policy details and data sources

Detail of national tax codes come from a wide range of sources including McFetridge and Warda (1983) OECD (1996; 2000b; 2002b; 2005a), Warda (1996a; 1996b; 1999; 2001; 2003; 2006), ETAN (1999a; 1999b), IBFD (2004; 2007)

Corporate income tax (CIT) is compiled from a number of sources including: University of Michigan World Tax Database (WTD 2007), World Bank World Development Indicators (WDI), OECD Tax Database (OECD 2007b) and the KPMG Corporate Tax Rate Survey (KPMG 2007). Unless otherwise stated, data applied are based on central government tax rates only from WTD (2007) extended for the more recent years using OECD (2007b). Cases where methodology deviates from this, for example to account for significant taxes levied at the regional level, are detailed.

In what follows incremental incentive schemes are always based on nominal expenditure. Credits are untaxed unless otherwise stated. In some instances it was difficult to confirm ‘typical’ depreciation schedules for fixed capital assets. The depreciation applied is documented based on the information available. Status quo is assumed unless evidence of a policy shift is available.

Australia. R&D tax policy: A 150% deduction introduced 1 July 1985 and then reduced to 125% from 1 July 1997. From 1 July 2001, companies could also claim an additional 50% (175% total) deduction on incremental expenditure above a 3 year moving average base. **Foreign contract R&D:** prior to 2007 foreign contract R&D not eligible. (BIE 1993; ATO 2002). **Depreciation:** M&E (1980-1996) 3 years straight line (SL), (1996-) 5 years SL. B&S: (1980-1986) 3 years SL (Lattimore

⁴ In Australia, State governments do not levy corporate income tax.

1997 p.94). (1987-) 40 years SL. **CIT:**⁵ 46% (1980-86), 49% (1987-88), 39% (1989-1993), 33% (1994-95), 36% (1996-1999), 34% (2000), 30% (2001-2006) (financial year begins 1 July, for example 1 July 1999- 30 June 2000 is denoted as 1999).

Austria. R&D tax policy: 1980-1988: 105% deduction. 1988 – 1999, 112% deduction. If the innovation was commercialised 'in house' the rate was 118% which is the rate modeled here. Cited as Tax law BGBl Nr 4/1988 in ETAN (1999a). 2000 - 2006, the concession included two parts, a 125% deduction available on the volume and 135% on increments above base expenditure defined as a three year moving average (Law BGBl 28/99). From 2005, firms could opt to take an 8% credit (modeled here). **Foreign contract R&D:** no restrictions. **Depreciation:** For the years 1980-1983, all fixed assets are deducted at 80% in the first year, followed by the remainder over the subsequent 4 years on a straight line basis (Warda 1983). For the period 1984-2006, depreciation is calculated over 5 and 25 years SL for M&E and B&S, respectively. **CIT:** 55% (1980-88), 30% (1989-93), 34% (1994-2004), 25% (2005-06).

Belgium. R&D tax policy: McFetridge and Warda (1983) observe that in 1980 a scheme was in place whereby expenditure above the average in the three years to 1976 was eligible for a 15% augmented deduction (115% of expenditure deducted from taxable income).⁶ In the absence of additional information the 15% rate is applied. **Foreign contract R&D:** no restrictions. **Depreciation:** We assume M&E is depreciated over 3 years SL. B&S are depreciated over 20 years SL. **CIT:** 48% (1980-1982), 45% 1983-86, 43% (1987-1989), 41% (1990), 39% (1999-2002), 33% (2003-2006).

Canada. R&D tax policy: The R&D tax credit in Canada was introduced in 1966 and has undergone a range of variations since then. Between 1980 and 1982, the scheme consisted of 10% on volume as well as an incremental credit of 50% above a three year moving average base. From 1983 the credit is 20%. The R&D credit in Canada is taxable, in that current allowable deductions are reduced by the value of the credit (Bloom et al. 2002). **Foreign contract R&D:** no restrictions. **Depreciation:** B&S and M&E were expensed (deducted at 100%) M&E between 1979 and 1987

⁵ Unless otherwise stated, all CIT data applied are based on central government tax rates from University of Michigan World Tax Database (WTD 2007) extended for the more recent years using OECD (2007). Other sources include: KPMG Corporate Tax Rate Survey (KPMG 2007) and World Bank World Development Indicators (WDI).

⁶ Under some conditions eligible expenditure could be scaled up, by a maximum of 50% meaning that in principle firms could deduct 122.5% of every incremental dollar (McFetridge and Warda 1983; ETAN 1993b, p.12). However, a European Commission report (ETAN 1999b) notes that "In practice, however this higher figure is never reached".

(Bloom et al. 2002). Since 1987 M&E can be deducted in the year it is incurred and B&S at 4% on a declining balance basis. **CIT:**⁷ 46% (1980-86), 45.5% (1987), 41.5% (1988), 38% (1989-2002), 33% (2003), 31% (2004-06).

Czech Republic. R&D tax policy: No special concessions were available between 1993 and 2005. As of 2005 a 200% deduction is available to all firms. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** 5 years SL for M&E and 30 years SL for B&S applied over the entire period. **CIT:** 45% (1993), 42% (1994), 41% (1995), 39% (1996-97), 35% (1998-2000), 31% (2001-03), 28% (2004), 26% (2005), 24% (2006).

Denmark. R&D tax policy: No special incentives are modeled. Denmark has had a range of concessions in place, but these have been attached to special conditions, generally relating to encouraging research collaboration both internationally and between tertiary research institutions and private business. **Depreciation:** Between 1980-1997 all fixed assets are deducted 100% in the year of expense. For the period 1998- 2006 M&E and B&S are deducted according to a 30% declining balance (DB) and 20 year SL, respectively. **CIT:** 40% (1980-85), 50% (1986-89), 40% (1990), 38% (1991-92), 34% (1993-98), 32% (1999-2000), 30% (2001-04) and 28% (2005-06).

Finland. R&D tax policy: Tax Deduction Enhancement 1983-87 allowed firms to deduct 225% on the first 4m FM and 10% on amounts above this (ETAN 1999). In addition a 50% deduction was available on incremental expenditure above the previous year. It has been suggested that the scheme was ultimately withdrawn on the basis that little impact was observed (ETAN 1999a). The calculations here apply the 10% rate on the volume plus the 50% incremental scheme to current expenditure between 1983 and 1987 inclusive. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** 25% DB for M&E and 20% DB for B&S. **CIT:** 43% (1980-85), 33% (1986-89), 25 (1990) 23% (1991), 19% (1992), 25 % (1993-1995), 28% (1996-1999), 29% (2000-04), 26% (2005-).

France. R&D tax policy: For the years 1983-1984, businesses in France could claim a 25% tax credit on expenditure above the previous year's expenditure (Mulkay and Mairesse 2003). This was increased to 50% in 1985. Between 1988-90 an alternative credit of 30% on the increment above

⁷ The headline central government (CG) Corporate Income Tax is applied. In Canada, the CG CIT is generally reduced by 10% (Provincial abatement) but increased by provincial (sub national) CIT. For example, the state CIT in Ontario has ranged from 12.5 to 13%. Additional features include the rebate for the manufacturing sector that has varied from 2 to 7% as well as a federal surcharge which has varied from 0-5% over the period. The headline CG CIT is close to measures taking into account these additional factors that require additional assumptions.

expenditure in 1987 was available (Bloom et al. 2002). In 1991, the base for calculating incremental expenditure was changed to be defined as the average of the previous two years (two year moving average) (Mulkay and Mairesse 2003). From 2004 to 2005, firms could claim 5% on volume and 45% on incremental expenditure with incremental expenditure defined as a 2 year moving average. In 2006, this was again changed to 10% on the volume and 40% on incremental expenditure above a 2 year moving average. **Foreign contract R&D:** some ambiguity existed prior to 2007, however firms conducting R&D under contract did claim the credit (DTT 2008). Foreign firms can be eligible for tax holidays. **Depreciation:** M&E and B&S are depreciated at 4% DB and 20 years SL respectively. However, between 1983-1986 B&S used for scientific research attracted an accelerated depreciation under which 50% was deducted in the year of expense with the remainder deducted over the usual period (Bloom et al. 2002). **CIT:** 50% (1980-86), 45% (1987), 42% (1988), 39% (1989), 37% (1990), 34% (1991-92), 33% (1993-2006).

Germany. R&D tax policy: Germany has had no special concessions **Depreciation:** Depreciation rates applied are 20% DB for M&E and 4% DB for B&S. **CIT:** 61.8% (1980-1989), 59.7% (1990-1993), 55.6% (1994), 59.0% (1995-1996), 57.5%, (1997-98), 52.0% (1999-2000), 38.0% (2001-02), 40.0%, 38.0% (2004-06), 38.3% (2006).⁸

Greece. R&D tax policy: Greece has had no special concessions available throughout this period. **Depreciation** rates of 12.5 years (SL) for buildings. For M&E immediate deduction is assumed for the period between 1980 and 1998 (consistent with Warda 1996b) and depreciation over 3 years (SL) for the period 1999 to 2006 (consistent with Warda 2001). **CIT:** 43.4% (1980-1982), 48.5% (1983-84), 49.0% (1985-1988), 46.0% (1989-1992), 35.0% (1993-2004), 32.0% (2005), 29.0% (2006).

Hungary. R&D tax policy: 1997-1999 current expenditure can be deducted at a rate of 120%. In 2000 this was increased to 200% (NKTH 2006). **Depreciation:** 3 years SL for M&E and 50 years SL for Buildings. **CIT:** 40.0% (1990-1993), 36.0% (1994), 18.0% (1995-2003), 16.0% 2004-2006.

Ireland. R&D tax policy: Between 1996 and 1998: a special 400% deduction was available on R&D expenditure above the previous year (ICSTI 1998; ETAN 1999a). Only companies eligible for

⁸ CIT Data applied for Germany from 1990 is taken from KPMG which include both central government rate and important corporate income taxes that vary by municipality. KPMG do not cover 1990 and 1992, the 1993 figure is extrapolated back as the headline CGCIT is the same in each of these years. Prior to 1990 figures are taken directly from Bloom et al. (2002).

the special 10% CIT were eligible.⁹ The Finance Act 2004 introduced a 20% tax credit on incremental expenditure. The baseline for calculating incremental expenditure is 2003 for R&D expenditure incurred in the first 3 years of the scheme (2004 to 2006, inclusive). Thereafter, the base is defined as the expenditure four years previous. i.e., for 2007 the baseline will be 2004 and for 2008 the base will be 2005, and so on. **Foreign contract R&D:** no restrictions. **Depreciation:** Both M&E and B&S are written off in the year it is incurred over the entire period. **CIT:** Ireland introduced a special tax rate of 10% nominally for manufacturing companies in 1981. In practice, eligibility extended to most relevant firms as courts deemed businesses in a number of activities not normally regarded as manufacturing as being eligible (Lowtax.net 2008). This is the rate applied in most past studies of tax concessions. In 1980 CIT was the standard 45%.

Italy. R&D tax policy: Italy had no special tax treatment for R&D by large firms during the period of study. **Depreciation:** 10 years (SL) for M&E and 33 years (SL) for buildings. **CIT:** 36.3% (1980-1981), 38.8% (1982), 41.3% (1983), 46.4% (1984-1990), 47.8% (1991-1992), 52.2% (1993-1998), 41.3% (1998-2000), 40.3% (2001-2002), 38.3% (2003), 37.3% (2004-2006).

Japan. R&D tax policy: Japan has had a tax incentive for R&D in place since 1967 (Koga 2003). For the period 1980 to 1998 a 20% tax credit on incremental expenditure, with the base defined as the largest expenditure reported since 1967, which for the representative firm is the previous year's expenditure. Subject to a maximum cap of 10% of a company's CIT liabilities. Reform in April 1999 (Koga 2003) reduced the rate to 15% and the definition of the base was changed. From 1999 the base is as the average of the three maximum R&D expenses in the past 5 years. From 2004, the rate of the credit is 8-10% (depending on firm R&D intensity) plus an additional 2% "as an aid of overcoming depressed economic situation" (OECD 2006). The average 11% total tax credit is applied here. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** 50 years SL for buildings¹⁰ and for M&E. A depreciation schedule of 18% DB for M&E for the years 1980-2003, and 50% thereafter is applied here.¹¹ **CIT:**¹² 53.0% (1980), 55.2% (1981-1983), 56.6% (1984-1986), 55.2% (1987-1988), 53.0% (1989), 50.4% (1990-1997), 47.2% (1998), 42.4% (1999-2006).

⁹ The scheme had a relatively low cap (175,000 IEP or about 350,000 USD) and according to the Irish Council for Science, Technology & Innovation "the deduction still had many restrictions and was little used by either foreign or indigenous research performers."

¹⁰ This is based on (Warda 1996b) and is also consistent with available figures for b-index published by the OECD.

¹¹ McFetridge and Warda (1983) suggests this is depreciated "over useful life 4-7 years. - This is close NPV to the 18% DB applied for later periods.

Korea. R&D tax policy: An incentive introduced in 1988 allowed firms to claim a credit of 25% on incremental expenditure above a 2 year moving average base and 5% on the volume expenditure (10% on volume for small firms) (OECD 1998, p.172). Between 1998¹³ and 2004 companies could choose between either the 50% on incremental expenditure or 5% on the total volume of expenditure. The 50% incremental rate is applied here as it is the more generous of the two under the current assumptions. The reforms also changed the base to the average of the previous four years (OECD 2000b; Sawyer 2004). The rate of the incremental scheme was reduced from 50 to 40% in 2003 (Rashkin, 2007). **Foreign contract R&D:** no information about restrictions was identified. Foreign firms can be eligible for tax holidays. **Deprecation:** Between 1980 and 1997 depreciation rates of 22.6% and 5.6% DB are applied for M&E and B&S respectively.¹⁴ For the subsequent decade each are depreciated over 5 years on a SL basis (Warda 1999 and subsequent OECD documents). **CIT:** 30.0% (1980-1990), 34.0% (1991-1993), 32.0% (1994), 30.0% (1995), 28.0% (1996-2001), 27.0% (2002), 25.0% (2005).

Mexico. R&D tax policy: Between 1981 and 1982 (introduced November 1980) Mexico provided a tax credit on durables of 15-20% (McFetridge and Warda, 1983). The maximum 20% rate is applied here. There was also a credit of 10% for payment for ‘R&D services’. These represent contract R&D or outsourcing part of the R&D process. McFetridge and Warda (1983) suggests such expenditure comprises around 8% of total R&D spending. Between 1983 and 1996 no special incentives were generally available. Between 1997 and 2001 expenditures above a three year moving average were eligible for a 20% credit (Sawyer 2004). Since 2002 a 30% credit has been available on expenditure (OECD 2006). Credits are untaxed; i.e., they do not reduce standard deductions. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** The depreciation rates applied are 3 and 20 years on a SL basis for M&E and B&S, respectively. **CIT:** 42.0% (1980-1986), 35.0% (1987-88), 37.0% (1989), 36.0% (1990), 35.0% (1991-1993), 34.0% (1994-1998), 35.0% (1999-2002), 34.0% (2003), 33.0% (2004), 30.0% (2005), 29.0% (2006).

¹² Three forms of taxation levied on corporate profits in Japan are considered: central government rate, prefectural tax and citizen’s tax. Corporations operating in Japan must also pay prefectural tax. The prefectural tax rate in this study is taken as 12% (deductible). The inhabitant’s tax or enterprise tax is levied as a “surcharge on national income tax.” In this study, Warda (1996b) is followed, applying a rate of 20.7%. Central government rate is taken from the WTD. The eventual series is very close to the Composite CIT reported by KPMG that takes into account these sub-national taxes. However this enabled calculation of an equivalent figure for years that are not included in the KPMG database (1980-1992). There was also a different tax rate applied to retained and distributed profits prior to 1999 this is not modelled here.

¹³ Associated with the ‘Special Law for S&T’ enacted in 1997.

¹⁴ This is consistent with Warda (1996b) and others. However, Warda (1983) notes 50% of these assets are depreciated up front with the remainder depreciated “over their useful lives”. In the absence of further guidance, the 1996 information on asset deprecation has been applied back to 1980.

Netherlands. R&D tax policy: Netherlands represents an important case study for the effectiveness of R&D tax incentives. From 1994, R&D wages attracted a tax credit of 40% of the first 72,000 ECU and 12.5% of above (Hall 1995b). The 12.5 rate is modeled. This credit applies to salaries and these are assumed to constitute 60% of total representative R&D expenditure. The value of the concession increased to 13% in 2001 and to 14% from 2004. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** Depreciation rates applied are 5 and 25 years on a SL basis for M&E and B&S, respectively. **CIT:** 48.0% (1980-1983), 43.0% (1984-85), 42.0% (1986-88), 35.0% (1989-1995), 37.0% (1996), 36.0% (1997), 35.0% (1998-2001), 34.5% (2002-2004), 31.5% (2005), 29.6% (2006).

New Zealand. R&D tax policy: No special concessions or tax credits have been available during the period 1980-2005. The rules for deducting 'current' R&D expenditure including wages have been subject to some uncertainty, particularly prior to 2001. While the situation prior to 2001 was somewhat ambiguous, a discussion paper prepared by the New Zealand Inland Revenue Department observes that "...although the tax treatment of R&D expenditure is uncertain, taxpayers are immediately deducting almost all of their R&D costs" (IRD 2000). Separate provisions (DJ 9 ITA 1994 and earlier s 144 ITA 1976) existed, allowing deductions for expenditure relating to scientific research. Provisions under ITA 1976 suggest a similar capital test. **Depreciation:** Following Warda (2006) a representative depreciation schedule of 22% (DB) is applied for M&E, and 4% (DB) for B&S. **CIT:** 45.0% (1980-1985), 48.0% (1987-88), 28.0% (1989), 33.0% (1990-2006).

Norway. R&D tax policy: 1980-2001 no special concessions. 2002 - current 18% tax credit (OECD 2006). **Depreciation:** M&E and B&S depreciated at 20% and 5% (DB) respectively. **CIT:** 50.8% (1980-1991), 28.0% (1992-2006). Before the reform in 1992, basic CIT in Norway was 27.8% as cited in WTD. Corporations also paid municipal income tax (21% in 1989) and an additional 2% surtax (Genser 2001). McFetridge and Warda (1983) also cite the total rate as 51%.

Poland. R&D tax policy: From July 2005, large firms receive a 30% tax credit on expenditure "incurred to purchase new technologies" (IBFD online database). Accessibility is limited to firms which obtain at least 50% of their income from R&D, the law "enables entrepreneurs to deduct from their tax base expenditures on purchase of new technologies from research units" (OECD 2006, p.71). As such, it appears this incentive is not available for all 'in house' R&D. The purchase of R&D services is assumed to constitute 8% of R&D costs - analogously to the scheme in Mexico in 1980-82 (discussed above). **Foreign contract R&D:** no restrictions identified. **Depreciation:** prior to the 2005 reform, in principle, successful R&D expenditure is classified as an intangible asset and had to be depreciated over 3 years on a straight line basis (IBFD 2004). M&E and B&S did not

attract any special treatment and are depreciated over 4 years and 40 years, respectively (IBFD online database 2007). After the reform in 2005 'current' R&D are expensed. **CIT:** 40.0% (1991-1997), 36.0% (1998), 34.0% (1999), 28.0% (2000-2002), 27.0% (2003), 19.0% (2004-2006).

Portugal. R&D tax policy: From 1997 to 2000, current R&D expenditure attracted a tax credit of 8% on the volume and 30% on incremental expenditure above the average expenditure in the previous 3 years (EC 2002).¹⁵ In June 2001 the credit was increased to 20% on volume and 50% on incremental expenditure (Decree law no 197/2001). It understood that the base changed to a 2 year moving average (OECD 2002b). 2004 No scheme in place (OECD 2006). From 2004 expenditure attracts a tax credit 20% on volume and 50% on incremental expenditure (IBFD online database). **Foreign contract R&D:** potentially eligible but R&D must be at least 25 percent self-financed (IBFD 2004 p.154). **Depreciation:** Depreciation schedule of 4 and 20 years (SL) for M&E and B&S, respectively is applied (consistent with Warda 1996b and others).¹⁶ **CIT:** 23.0% (1980-81), 40.0% (1982-1986), 35.0% (1987-88), 36.5% (1989-90), 36.0% (1991-1997), 37.0% (1998), 34.0% (1999), 32.0% (2000-01), 30.0% (2002-03), 25.0% (2004-06). WTD (2007) series show jumps in CIT to 39.6% in 1995 and 1997. These appear to be the sum of the 36% base tax rate and the 10% local surcharge. A rate of 36% is applied in these years.

Spain.¹⁷ **R&D tax policy:** 1981-83 10% credit on all expenditure. Between 1984 and 1991, a credit of 15%. 1992-95, 15% credit on volume and 30% on incremental expenditure above a 2 year moving average. 1996-2000, 20% credit on volume and 40% on incremental expenditure. Between 2001 and 2006, only current expenditure was eligible for the credit at a rate of 30% of volume and 50% on increment above the 3 year moving average. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** M&E costs are expensed, B&S 7 years SL 1980-1995, 10 years 1996 and 33 years 1997-2006. **CIT:** 33% (1980-1983), 35% (1984-2006).

Sweden. R&D tax policy: 1980-1983 Special Deduction allowances of 10 % on wage payments grossed up by two thirds. i.e. 16.7% total wage payments (McFetridge and Warda 1983). In addition, a 20% deduction was available on the increment on the previous year's expenditure (wages). Effective 1 Jan 1982, the base credit was reduced from 10% to 5% applied to 250% of wages,

¹⁵ Decree law no 292/97, and prolonged to cover 2001, 2002 and 2003 by Article 60 of Law no 3-B/2000.

¹⁶ Note Warda (1983) applies 3 years for M&E however without knowing the exact year the laws were changed, or if this results from alternate interpretation of the same depreciation guidelines, to avoid erroneous temporal variation the same rate is applied across the whole time.

¹⁷ Information for Spain was provided by J. Warda (personal communication).

implying a 12.5% concession on wages (i.e., 112% of wage costs are deducted). With this change the incremental component was also increased to 30%. No other special concession at other times. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** Depreciation rates 30% DB for M&E with B&S over 25 years SL. **CIT:** 40.0% (1980-1983), 32.0% (1984), 52.0% (1985-1989), 40.0% (1990), 30.0% (1991-1993), 28.0% (1994-2006).

Switzerland. R&D tax policy: Switzerland offered no special concession over the period covered by this study. **Depreciation:** Representative depreciation schedules applied are 40% and 8% (DB) for M&E and B&S respectively. **CIT:**¹⁸ 30.2% (1980-1989), 28.5% (1990-1997), 27.5% (1998), 25.1% (1999-2000), 24.7% (2001), 24.5% (2002), 24.1% (2003-04), 21.3% (2005-06). **Foreign contract R&D:** no restrictions identified.

United Kingdom. R&D tax policy: 1980-2000 no special concessions. From 2000, 125% deduction on current expenditure is available for small companies with a turnover below 25m GBP (not modeled). From 1 April 2002, a similar concession was introduced for large firms of 125% deduction (IBFD 2007). **Foreign contract R&D:** no restrictions. **Depreciation:** Both M&E and B&S are deducted in the year of expense. **CIT:** 52.0% (1980-1983), 50.0% (1984), 45.0% (1985), 40.0% (1986), 35.0% (1987-1991), 33.0% (1992-1997), 31.0% (1998-1999), 30.0% (2000-2006).

United States. R&D tax policy: From 1981-1985 a 25% tax credit was available on incremental expenditure. The base is defined as the average of the previous three years with a maximum allowable credit of 50% of total R&D expenditure. In 1986, the credit is reduced to 20% of incremental expenditure. Until 1988, the credit itself was untaxed. In 1989 it was 50% taxable and from 1990 onwards it is 100% taxable. In 1990, the definition of the base expenditure was changed to reflect R&D to sales revenue over the period of 1984-88 (see Hall 1995b; JCT 1997). We model this identically to a trailing 4 year moving average base, which is the case for a representative firm with constant R&D expenditure and constant real R&D/sales ratio. **Foreign contract R&D:** no information about restrictions was identified. **Depreciation:** applied is 5 years SL for M&E and for Buildings: 15yrs SL (1980-1984), 18yrs SL (1985), 19yrs SL (1986) and 39 years thereafter. The method for calculating depreciation was changed from 1987 with the introduction of the Modified

¹⁸ Switzerland CIT should consider the effect of the cantonal tax rate for Zurich. For 1993-2005, KPMG data is used. KPMG report a jump of 5pp to 29% for 2006, however the OECD tax database series suggests no change between 2005 and 2006. Prior to 1993, the CIT is calculated based on the CG rate from WTD and adding the last known cantonal rate (18.5 pp, inferred from the difference between WTD and KPMG and constant for the period 1993-1997).

Accelerated Cost Recovery System. **CIT:** 46.0% (1980-86), 40.0% (1987), 34.0% (1988-1992), 35.0% (1993-2006).

Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign	Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign
Australia	1980	0.46	1.000	1.000	1.075	1.075	1.008	Belgium	1980	0.48	0.956	0.956	0.957	1.470	0.982
Australia	1981	0.46	1.000	1.000	1.075	1.075	1.008	Belgium	1981	0.48	1.000	1.000	0.997	1.491	1.024
Australia	1982	0.46	1.000	1.000	1.075	1.075	1.008	Belgium	1982	0.48	1.000	1.000	0.997	1.491	1.024
Australia	1983	0.46	1.000	1.000	1.075	1.075	1.008	Belgium	1983	0.45	1.000	1.000	0.998	1.435	1.021
Australia	1984	0.46	1.000	1.000	1.075	1.075	1.008	Belgium	1984	0.45	1.000	1.000	0.998	1.435	1.021
Australia	1985	0.46	0.574	0.574	0.687	0.687	1.008	Belgium	1985	0.45	1.000	1.000	0.998	1.435	1.021
Australia	1986	0.46	0.574	0.574	0.687	1.623	1.008	Belgium	1986	0.45	1.000	1.000	0.998	1.435	1.021
Australia	1987	0.49	0.520	0.520	0.647	1.702	1.039	Belgium	1987	0.43	1.000	1.000	0.998	1.401	1.020
Australia	1988	0.49	0.520	0.520	0.647	1.702	1.039	Belgium	1988	0.43	1.000	1.000	0.998	1.401	1.020
Australia	1989	0.39	0.680	0.680	0.765	1.467	1.026	Belgium	1989	0.43	1.000	1.000	0.998	1.401	1.020
Australia	1990	0.39	0.680	0.680	0.765	1.467	1.026	Belgium	1990	0.41	1.000	1.000	0.976	1.326	1.012
Australia	1991	0.39	0.680	0.680	0.765	1.467	1.026	Belgium	1991	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1992	0.39	0.680	0.680	0.765	1.467	1.026	Belgium	1992	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1993	0.39	0.680	0.680	0.765	1.467	1.026	Belgium	1993	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1994	0.33	0.754	0.754	0.819	1.360	1.020	Belgium	1994	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1995	0.33	0.754	0.754	0.819	1.360	1.020	Belgium	1995	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1996	0.36	0.859	0.859	0.921	1.411	1.023	Belgium	1996	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1997	0.36	0.859	0.859	0.976	1.411	1.025	Belgium	1997	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1998	0.36	0.859	0.859	0.976	1.411	1.025	Belgium	1998	0.39	1.000	1.000	0.978	1.300	1.011
Australia	1999	0.36	0.859	0.859	0.976	1.411	1.025	Belgium	1999	0.39	1.000	1.000	0.978	1.300	1.011
Australia	2000	0.34	0.871	0.871	0.978	1.377	1.023	Belgium	2000	0.39	1.000	1.000	0.978	1.300	1.011
Australia	2001	0.3	0.856	0.856	0.951	1.313	1.019	Belgium	2001	0.39	1.000	1.000	0.978	1.300	1.011
Australia	2002	0.3	0.856	0.856	0.951	1.313	1.019	Belgium	2002	0.39	1.000	1.000	0.978	1.300	1.011
Australia	2003	0.3	0.856	0.856	0.951	1.313	1.019	Belgium	2003	0.33	1.000	1.000	0.983	1.231	1.009
Australia	2004	0.3	0.856	0.856	0.951	1.313	1.019	Belgium	2004	0.33	1.000	1.000	0.983	1.231	1.009
Australia	2005	0.3	0.856	0.856	0.951	1.313	1.019	Belgium	2005	0.33	1.000	1.000	0.983	1.231	1.009
Australia	2006	0.3	0.856	0.856	0.951	1.313	1.019	Belgium	2006	0.33	1.000	1.000	0.983	1.231	1.009
Austria	1980	0.55	0.939	0.939	1.051	1.051	0.950	Canada	1980	0.46	0.832	0.832	0.832	0.832	0.832
Austria	1981	0.55	0.939	0.939	1.051	1.051	0.950	Canada	1981	0.46	0.832	0.832	0.832	0.832	0.832
Austria	1982	0.55	0.939	0.939	1.051	1.051	0.950	Canada	1982	0.46	0.832	0.832	0.832	0.832	0.832
Austria	1983	0.55	0.939	0.939	1.051	1.051	0.950	Canada	1983	0.46	0.800	0.800	0.800	1.000	0.810
Austria	1984	0.55	0.939	0.939	1.203	1.734	0.992	Canada	1984	0.46	0.800	0.800	0.800	1.000	0.810
Austria	1985	0.55	0.939	0.939	1.203	1.734	0.992	Canada	1985	0.46	0.800	0.800	0.800	1.000	0.810
Austria	1986	0.55	0.939	0.939	1.203	1.734	0.992	Canada	1986	0.46	0.800	0.800	0.800	1.000	0.810
Austria	1987	0.55	0.939	0.939	1.203	1.734	0.992	Canada	1987	0.46	0.800	0.800	0.800	1.000	0.810
Austria	1988	0.55	0.939	0.939	1.203	1.734	0.992	Canada	1988	0.42	0.800	0.800	0.800	1.486	0.834
Austria	1989	0.3	0.923	0.923	1.071	1.257	0.997	Canada	1989	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1990	0.3	0.923	0.923	1.071	1.257	0.997	Canada	1990	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1991	0.3	0.923	0.923	1.071	1.257	0.997	Canada	1991	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1992	0.3	0.923	0.923	1.039	1.242	0.943	Canada	1992	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1993	0.3	0.923	0.923	1.039	1.242	0.943	Canada	1993	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1994	0.34	0.907	0.907	1.047	1.291	0.932	Canada	1994	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1995	0.34	0.907	0.907	1.047	1.291	0.932	Canada	1995	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1996	0.34	0.907	0.907	1.047	1.291	0.932	Canada	1996	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1997	0.34	0.907	0.907	1.047	1.291	0.932	Canada	1997	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1998	0.34	0.907	0.907	1.047	1.291	0.932	Canada	1998	0.38	0.800	0.800	0.800	1.420	0.831
Austria	1999	0.34	0.907	0.907	1.047	1.291	0.932	Canada	1999	0.38	0.800	0.800	0.800	1.420	0.831
Austria	2000	0.34	0.862	0.862	1.047	1.291	0.891	Canada	2000	0.38	0.800	0.800	0.800	1.420	0.831
Austria	2001	0.34	0.862	0.862	1.047	1.291	0.891	Canada	2001	0.38	0.800	0.800	0.800	1.420	0.831
Austria	2002	0.34	0.862	0.862	1.047	1.291	0.891	Canada	2002	0.38	0.800	0.800	0.800	1.420	0.831
Austria	2003	0.34	0.862	0.862	1.021	1.279	0.888	Canada	2003	0.33	0.800	0.800	0.800	1.338	0.827
Austria	2004	0.34	0.862	0.862	1.021	1.279	0.888	Canada	2004	0.31	0.800	0.800	0.800	1.308	0.825
Austria	2005	0.25	0.893	0.893	1.055	1.200	0.917	Canada	2005	0.31	0.800	0.800	0.800	1.308	0.825
Austria	2006	0.25	0.893	0.893	1.055	1.200	0.917	Canada	2006	0.31	0.800	0.800	0.800	1.308	0.825

Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign	Country	year	CIT	Labou r	Oth. Curr.	M&E	B&S	Foreign
Czech Republic	1980	-	-	-	-	-	-	Finland	1980	0.43	1.000	1.000	1.162	1.201	1.018
Czech Republic	1981	-	-	-	-	-	-	Finland	1981	0.43	1.000	1.000	1.162	1.201	1.018
Czech Republic	1982	-	-	-	-	-	-	Finland	1982	0.43	1.000	1.000	1.162	1.201	1.018
Czech Republic	1983	-	-	-	-	-	-	Finland	1983	0.43	0.897	0.897	1.162	1.201	0.926
Czech Republic	1984	-	-	-	-	-	-	Finland	1984	0.43	0.897	0.897	1.162	1.201	0.926
Czech Republic	1985	-	-	-	-	-	-	Finland	1985	0.43	0.897	0.897	1.162	1.201	0.926
Czech Republic	1986	-	-	-	-	-	-	Finland	1986	0.33	0.933	0.933	1.106	1.131	0.951
Czech Republic	1987	-	-	-	-	-	-	Finland	1987	0.33	0.933	0.933	1.106	1.131	0.951
Czech Republic	1988	-	-	-	-	-	-	Finland	1988	0.33	1.000	1.000	1.106	1.131	1.012
Czech Republic	1989	-	-	-	-	-	-	Finland	1989	0.33	1.000	1.000	1.106	1.131	1.012
Czech Republic	1990	-	-	-	-	-	-	Finland	1990	0.25	1.000	1.000	1.071	1.089	1.008
Czech Republic	1991	-	-	-	-	-	-	Finland	1991	0.23	1.000	1.000	1.064	1.080	1.007
Czech Republic	1992	0.4	1.000	1.000	1.111	1.436	1.027	Finland	1992	0.19	1.000	1.000	1.050	1.063	1.006
Czech Republic	1993	0.45	1.000	1.000	1.136	1.535	1.034	Finland	1993	0.25	1.000	1.000	1.071	1.089	1.008
Czech Republic	1994	0.42	1.000	1.000	1.120	1.474	1.030	Finland	1994	0.25	1.000	1.000	1.071	1.089	1.008
Czech Republic	1995	0.41	1.000	1.000	1.115	1.455	1.029	Finland	1995	0.25	1.000	1.000	1.071	1.089	1.008
Czech Republic	1996	0.39	1.000	1.000	1.106	1.418	1.026	Finland	1996	0.28	1.000	1.000	1.083	1.104	1.009
Czech Republic	1997	0.39	1.000	1.000	1.106	1.418	1.026	Finland	1997	0.28	1.000	1.000	1.083	1.104	1.009
Czech Republic	1998	0.35	1.000	1.000	1.089	1.352	1.022	Finland	1998	0.28	1.000	1.000	1.083	1.104	1.009
Czech Republic	1999	0.35	1.000	1.000	1.089	1.352	1.022	Finland	1999	0.28	1.000	1.000	1.083	1.104	1.009
Czech Republic	2000	0.35	1.000	1.000	1.089	1.352	1.022	Finland	2000	0.29	1.000	1.000	1.088	1.109	1.010
Czech Republic	2001	0.31	1.000	1.000	1.075	1.294	1.018	Finland	2001	0.29	1.000	1.000	1.088	1.109	1.010
Czech Republic	2002	0.31	1.000	1.000	1.075	1.294	1.018	Finland	2002	0.29	1.000	1.000	1.088	1.109	1.010
Czech Republic	2003	0.31	1.000	1.000	1.075	1.294	1.018	Finland	2003	0.29	1.000	1.000	1.088	1.109	1.010
Czech Republic	2004	0.28	1.000	1.000	1.065	1.254	1.016	Finland	2004	0.29	1.000	1.000	1.088	1.109	1.010
Czech Republic	2005	0.26	0.649	0.649	1.058	1.230	0.698	Finland	2005	0.26	1.000	1.000	1.075	1.094	1.008
Czech Republic	2006	0.24	0.684	0.684	1.052	1.207	0.729	Finland	2006	0.26	1.000	1.000	1.075	1.094	1.008
Denmark	1980	0.4	1.000	1.000	1.000	1.000	1.000	France	1980	0.5	1.000	1.000	1.120	1.532	1.033
Denmark	1981	0.4	1.000	1.000	1.000	1.000	1.000	France	1981	0.5	1.000	1.000	1.120	1.532	1.033
Denmark	1982	0.4	1.000	1.000	1.000	1.000	1.000	France	1982	0.5	1.000	1.000	1.120	1.532	1.033
Denmark	1983	0.4	1.000	1.000	1.000	1.000	1.000	France	1983	0.5	0.955	0.955	1.075	1.266	0.976
Denmark	1984	0.4	1.000	1.000	1.000	1.000	1.000	France	1984	0.5	0.955	0.955	1.075	1.266	0.976
Denmark	1985	0.4	1.000	1.000	1.000	1.000	1.000	France	1985	0.5	0.909	0.909	1.029	1.266	0.933
Denmark	1986	0.5	1.000	1.000	1.000	1.000	1.000	France	1986	0.5	0.909	0.909	1.029	1.266	0.933
Denmark	1987	0.5	1.000	1.000	1.000	1.000	1.000	France	1987	0.45	0.917	0.917	1.016	1.435	0.948
Denmark	1988	0.5	1.000	1.000	1.000	1.000	1.000	France	1988	0.42	0.922	0.922	1.009	1.385	0.949
Denmark	1989	0.5	1.000	1.000	1.000	1.000	1.000	France	1989	0.39	0.915	0.915	0.991	1.340	0.940
Denmark	1990	0.4	1.000	1.000	1.000	1.000	1.000	France	1990	0.37	0.882	0.882	0.952	1.312	0.907
Denmark	1991	0.38	1.000	1.000	1.000	1.000	1.000	France	1991	0.34	0.900	0.900	0.962	1.274	0.922
Denmark	1992	0.38	1.000	1.000	1.000	1.000	1.000	France	1992	0.34	0.900	0.900	0.962	1.274	0.922
Denmark	1993	0.34	1.000	1.000	1.000	1.000	1.000	France	1993	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	1994	0.34	1.000	1.000	1.000	1.000	1.000	France	1994	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	1995	0.34	1.000	1.000	1.000	1.000	1.000	France	1995	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	1996	0.34	1.000	1.000	1.000	1.000	1.000	France	1996	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	1997	0.34	1.000	1.000	1.000	1.000	1.000	France	1997	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	1998	0.34	1.000	1.000	1.090	1.274	1.018	France	1998	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	1999	0.32	1.000	1.000	1.082	1.250	1.017	France	1999	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	2000	0.32	1.000	1.000	1.082	1.250	1.017	France	2000	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	2001	0.3	1.000	1.000	1.075	1.228	1.015	France	2001	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	2002	0.3	1.000	1.000	1.075	1.228	1.015	France	2002	0.33	0.901	0.901	0.961	1.265	0.922
Denmark	2003	0.3	1.000	1.000	1.075	1.228	1.015	France	2003	0.33	0.901	0.901	0.961	1.266	0.922
Denmark	2004	0.3	1.000	1.000	1.075	1.228	1.015	France	2004	0.33	0.846	0.846	0.906	1.112	0.862
Denmark	2005	0.28	1.000	1.000	1.068	1.207	1.014	France	2005	0.33	0.846	0.846	0.906	1.111	0.862
Denmark	2006	0.28	1.000	1.000	1.068	1.207	1.014	France	2006	0.34	0.787	0.787	0.850	1.066	0.804

Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign	Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign
Germany	1980	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1980	-	-	-	-	-	-
Germany	1981	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1981	-	-	-	-	-	-
Germany	1982	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1982	-	-	-	-	-	-
Germany	1983	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1983	-	-	-	-	-	-
Germany	1984	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1984	-	-	-	-	-	-
Germany	1985	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1985	-	-	-	-	-	-
Germany	1986	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1986	-	-	-	-	-	-
Germany	1987	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1987	-	-	-	-	-	-
Germany	1988	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1988	-	-	-	-	-	-
Germany	1989	0.62	1.000	1.000	1.283	2.109	1.070	Hungary	1989	-	-	-	-	-	-
Germany	1990	0.58	1.000	1.000	1.244	1.955	1.060	Hungary	1990	0.4	1.000	1.000	1.059	1.521	1.029
Germany	1991	0.57	1.000	1.000	1.228	1.894	1.056	Hungary	1991	0.4	1.000	1.000	1.059	1.521	1.029
Germany	1992	0.57	1.000	1.000	1.228	1.894	1.056	Hungary	1992	0.4	1.000	1.000	1.059	1.521	1.029
Germany	1993	0.6	1.000	1.000	1.259	2.015	1.064	Hungary	1993	0.4	1.000	1.000	1.059	1.521	1.029
Germany	1994	0.56	1.000	1.000	1.219	1.860	1.054	Hungary	1994	0.36	1.000	1.000	1.050	1.440	1.024
Germany	1995	0.59	1.000	1.000	1.252	1.987	1.062	Hungary	1995	0.18	1.000	1.000	1.019	1.172	1.010
Germany	1996	0.59	1.000	1.000	1.252	1.987	1.062	Hungary	1996	0.18	1.000	1.000	1.019	1.172	1.010
Germany	1997	0.58	1.000	1.000	1.237	1.928	1.058	Hungary	1997	0.18	0.956	0.956	1.019	1.172	0.970
Germany	1998	0.57	1.000	1.000	1.232	1.909	1.057	Hungary	1998	0.18	0.956	0.956	1.019	1.172	0.970
Germany	1999	0.52	1.000	1.000	1.190	1.743	1.047	Hungary	1999	0.18	0.956	0.956	1.019	1.172	0.970
Germany	2000	0.52	1.000	1.000	1.190	1.743	1.047	Hungary	2000	0.18	0.780	0.780	1.019	1.172	0.812
Germany	2001	0.38	1.000	1.000	1.107	1.420	1.026	Hungary	2001	0.18	0.780	0.780	1.019	1.172	0.812
Germany	2002	0.38	1.000	1.000	1.107	1.420	1.026	Hungary	2002	0.18	0.780	0.780	1.019	1.172	0.812
Germany	2003	0.4	1.000	1.000	1.117	1.457	1.029	Hungary	2003	0.18	0.780	0.780	1.019	1.172	0.812
Germany	2004	0.38	1.000	1.000	1.107	1.420	1.026	Hungary	2004	0.16	0.810	0.810	1.017	1.149	0.837
Germany	2005	0.38	1.000	1.000	1.163	1.417	1.029	Hungary	2005	0.16	0.810	0.810	1.017	1.149	0.837
Germany	2006	0.38	1.000	1.000	1.166	1.423	1.029	Hungary	2006	0.16	0.810	0.810	1.017	1.149	0.837
Greece	1980	0.43	1.000	1.000	1.068	1.297	1.018	Ireland	1980	0.45	1.000	1.000	1.000	1.000	1.000
Greece	1981	0.43	1.000	1.000	1.000	1.297	1.015	Ireland	1981	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1982	0.43	1.000	1.000	1.000	1.297	1.015	Ireland	1982	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1983	0.49	1.000	1.000	1.000	1.365	1.018	Ireland	1983	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1984	0.49	1.000	1.000	1.000	1.365	1.018	Ireland	1984	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1985	0.49	1.000	1.000	1.000	1.372	1.019	Ireland	1985	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1986	0.49	1.000	1.000	1.000	1.372	1.019	Ireland	1986	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1987	0.49	1.000	1.000	1.000	1.372	1.019	Ireland	1987	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1988	0.49	1.000	1.000	1.000	1.372	1.019	Ireland	1988	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1989	0.46	1.000	1.000	1.000	1.330	1.016	Ireland	1989	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1990	0.46	1.000	1.000	1.000	1.330	1.016	Ireland	1990	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1991	0.46	1.000	1.000	1.000	1.330	1.016	Ireland	1991	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1992	0.46	1.000	1.000	1.000	1.330	1.016	Ireland	1992	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1993	0.35	1.000	1.000	1.000	1.209	1.010	Ireland	1993	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1994	0.35	1.000	1.000	1.000	1.209	1.010	Ireland	1994	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1995	0.35	1.000	1.000	1.000	1.209	1.010	Ireland	1995	0.1	1.000	1.000	1.000	1.000	1.000
Greece	1996	0.35	1.000	1.000	1.000	1.209	1.010	Ireland	1996	0.1	1.000	1.000	1.000	1.000	0.973
Greece	1997	0.35	1.000	1.000	1.000	1.209	1.010	Ireland	1997	0.1	1.000	1.000	1.000	1.000	0.973
Greece	1998	0.35	1.000	1.000	1.000	1.209	1.010	Ireland	1998	0.1	1.000	1.000	1.000	1.000	0.973
Greece	1999	0.35	1.000	1.000	1.047	1.209	1.013	Ireland	1999	0.1	1.000	1.000	1.000	1.000	1.000
Greece	2000	0.35	1.000	1.000	1.047	1.209	1.013	Ireland	2000	0.1	1.000	1.000	1.000	1.000	1.000
Greece	2001	0.35	1.000	1.000	1.047	1.209	1.013	Ireland	2001	0.1	1.000	1.000	1.000	1.000	1.000
Greece	2002	0.35	1.000	1.000	1.047	1.209	1.013	Ireland	2002	0.1	1.000	1.000	1.000	1.000	1.000
Greece	2003	0.35	1.000	1.000	1.047	1.209	1.013	Ireland	2003	0.1	1.000	1.000	1.000	1.000	1.000
Greece	2004	0.35	1.000	1.000	1.047	1.209	1.013	Ireland	2004	0.1	0.980	0.980	0.980	0.778	0.970
Greece	2005	0.32	1.000	1.000	1.041	1.182	1.011	Ireland	2005	0.1	0.961	0.961	0.961	0.778	0.952
Greece	2006	0.29	1.000	1.000	1.036	1.158	1.010	Ireland	2006	0.1	0.945	0.945	0.945	0.778	0.936

Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign	Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign
Italy	1980	0.36	1.000	1.000	1.185	1.388	1.029	Korea	1980	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1981	0.36	1.000	1.000	1.185	1.388	1.029	Korea	1981	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1982	0.39	1.000	1.000	1.205	1.432	1.032	Korea	1982	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1983	0.41	1.000	1.000	1.228	1.479	1.035	Korea	1983	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1984	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1984	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1985	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1985	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1986	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1986	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1987	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1987	0.3	1.000	1.000	1.102	1.259	1.018
Italy	1988	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1988	0.3	0.891	0.891	0.993	1.188	0.911
Italy	1989	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1989	0.3	0.891	0.891	0.993	1.188	0.911
Italy	1990	0.46	1.000	1.000	1.281	1.590	1.044	Korea	1990	0.3	0.891	0.891	0.993	1.188	0.911
Italy	1991	0.48	1.000	1.000	1.297	1.624	1.046	Korea	1991	0.34	0.884	0.884	1.006	1.236	0.908
Italy	1992	0.48	1.000	1.000	1.297	1.624	1.046	Korea	1992	0.34	0.884	0.884	1.006	1.236	0.908
Italy	1993	0.52	1.000	1.000	1.354	1.744	1.055	Korea	1993	0.34	0.884	0.884	1.006	1.236	0.908
Italy	1994	0.52	1.000	1.000	1.354	1.744	1.055	Korea	1994	0.32	0.888	0.888	0.999	1.211	0.909
Italy	1995	0.52	1.000	1.000	1.354	1.744	1.055	Korea	1995	0.3	0.891	0.891	0.993	1.188	0.911
Italy	1996	0.52	1.000	1.000	1.354	1.744	1.055	Korea	1996	0.28	0.894	0.894	0.986	1.166	0.912
Italy	1997	0.52	1.000	1.000	1.354	1.744	1.055	Korea	1997	0.28	0.856	0.856	0.995	0.995	0.870
Italy	1998	0.41	1.000	1.000	1.228	1.478	1.035	Korea	1998	0.28	0.856	0.856	0.995	0.995	0.870
Italy	1999	0.41	1.000	1.000	1.228	1.478	1.035	Korea	1999	0.28	0.856	0.856	0.995	0.995	0.870
Italy	2000	0.41	1.000	1.000	1.228	1.478	1.035	Korea	2000	0.28	0.856	0.856	0.995	0.995	0.870
Italy	2001	0.4	1.000	1.000	1.218	1.459	1.034	Korea	2001	0.28	0.856	0.856	0.995	0.995	0.870
Italy	2002	0.4	1.000	1.000	1.218	1.459	1.034	Korea	2002	0.27	0.858	0.858	0.993	0.993	0.871
Italy	2003	0.38	1.000	1.000	1.201	1.422	1.031	Korea	2003	0.27	0.858	0.858	0.993	0.993	0.897
Italy	2004	0.37	1.000	1.000	1.192	1.404	1.030	Korea	2004	0.27	0.858	0.858	0.993	0.993	0.897
Italy	2005	0.37	1.000	1.000	1.192	1.404	1.030	Korea	2005	0.25	0.862	0.862	0.989	0.989	0.899
Italy	2006	0.37	1.000	1.000	1.192	1.404	1.030	Korea	2006	0.25	0.862	0.862	0.989	0.989	0.899
Japan	1980	0.53	0.961	0.961	1.292	1.883	1.024	Mexico	1980	0.42	1.000	1.000	1.064	1.385	1.022
Japan	1981	0.55	0.959	0.959	1.320	1.962	1.028	Mexico	1981	0.42	0.986	0.986	0.719	1.040	0.974
Japan	1982	0.55	0.959	0.959	1.320	1.962	1.028	Mexico	1982	0.42	0.986	0.986	0.719	1.040	0.974
Japan	1983	0.55	0.959	0.959	1.320	1.962	1.028	Mexico	1983	0.42	1.000	1.000	1.064	1.385	1.022
Japan	1984	0.57	0.958	0.958	1.339	2.018	1.030	Mexico	1984	0.42	1.000	1.000	1.064	1.385	1.022
Japan	1985	0.57	0.958	0.958	1.339	2.018	1.030	Mexico	1985	0.42	1.000	1.000	1.064	1.385	1.022
Japan	1986	0.57	0.958	0.958	1.339	2.018	1.030	Mexico	1986	0.42	1.000	1.000	1.064	1.385	1.022
Japan	1987	0.55	0.959	0.959	1.320	1.962	1.028	Mexico	1987	0.35	1.000	1.000	1.047	1.286	1.017
Japan	1988	0.55	0.959	0.959	1.320	1.962	1.028	Mexico	1988	0.35	1.000	1.000	1.047	1.286	1.017
Japan	1989	0.53	0.961	0.961	1.292	1.883	1.024	Mexico	1989	0.37	1.000	1.000	1.052	1.312	1.018
Japan	1990	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1990	0.36	1.000	1.000	1.050	1.299	1.017
Japan	1991	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1991	0.35	1.000	1.000	1.047	1.286	1.017
Japan	1992	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1992	0.35	1.000	1.000	1.047	1.286	1.017
Japan	1993	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1993	0.35	1.000	1.000	1.047	1.286	1.017
Japan	1994	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1994	0.34	1.000	1.000	1.045	1.274	1.016
Japan	1995	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1995	0.34	1.000	1.000	1.045	1.274	1.016
Japan	1996	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1996	0.34	1.000	1.000	1.045	1.274	1.016
Japan	1997	0.5	0.963	0.963	1.261	1.794	1.020	Mexico	1997	0.34	0.948	0.948	1.045	1.274	0.969
Japan	1998	0.47	0.966	0.966	1.227	1.699	1.015	Mexico	1998	0.34	0.948	0.948	1.045	1.274	0.969
Japan	1999	0.42	0.955	0.955	1.171	1.576	0.997	Mexico	1999	0.35	0.947	0.947	1.047	1.286	0.969
Japan	2000	0.42	0.955	0.955	1.171	1.576	0.997	Mexico	2000	0.35	0.947	0.947	1.047	1.286	0.969
Japan	2001	0.42	0.955	0.955	1.171	1.576	0.997	Mexico	2001	0.35	0.947	0.947	1.047	1.286	0.969
Japan	2002	0.42	0.955	0.955	1.171	1.576	0.997	Mexico	2002	0.35	0.947	0.947	1.047	1.286	0.969
Japan	2003	0.42	0.955	0.955	1.171	1.576	0.997	Mexico	2003	0.34	0.545	0.545	1.045	1.274	0.607
Japan	2004	0.42	0.809	0.809	0.870	1.576	0.850	Mexico	2004	0.33	0.552	0.552	1.043	1.262	0.612
Japan	2005	0.42	0.809	0.809	0.870	1.576	0.850	Mexico	2005	0.3	0.571	0.571	1.038	1.228	0.628
Japan	2006	0.42	0.809	0.809	0.870	1.576	0.850	Mexico	2006	0.29	0.577	0.577	1.036	1.217	0.632

Country	Year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign
Netherlands	1980	0.48	1.000	1.000	1.153	1.554	1.035
Netherlands	1981	0.48	1.000	1.000	1.153	1.554	1.035
Netherlands	1982	0.48	1.000	1.000	1.153	1.554	1.035
Netherlands	1983	0.48	1.000	1.000	1.153	1.554	1.035
Netherlands	1984	0.43	1.000	1.000	1.125	1.453	1.029
Netherlands	1985	0.43	1.000	1.000	1.125	1.453	1.029
Netherlands	1986	0.42	1.000	1.000	1.120	1.435	1.028
Netherlands	1987	0.42	1.000	1.000	1.120	1.435	1.028
Netherlands	1988	0.42	1.000	1.000	1.120	1.435	1.028
Netherlands	1989	0.35	1.000	1.000	1.089	1.323	1.021
Netherlands	1990	0.35	1.000	1.000	1.089	1.323	1.021
Netherlands	1991	0.35	1.000	1.000	1.089	1.323	1.021
Netherlands	1992	0.35	1.000	1.000	1.089	1.323	1.021
Netherlands	1993	0.35	1.000	1.000	1.089	1.323	1.021
Netherlands	1994	0.35	0.808	1.000	1.089	1.323	0.905
Netherlands	1995	0.35	0.808	1.000	1.089	1.323	0.905
Netherlands	1996	0.37	0.802	1.000	1.098	1.353	0.903
Netherlands	1997	0.36	0.805	1.000	1.093	1.338	0.904
Netherlands	1998	0.35	0.808	1.000	1.089	1.323	0.905
Netherlands	1999	0.35	0.808	1.000	1.089	1.323	0.905
Netherlands	2000	0.35	0.808	1.000	1.089	1.323	0.905
Netherlands	2001	0.35	0.808	1.000	1.089	1.323	0.905
Netherlands	2002	0.35	0.802	1.000	1.087	1.316	0.901
Netherlands	2003	0.35	0.802	1.000	1.087	1.316	0.901
Netherlands	2004	0.35	0.786	1.000	1.087	1.316	0.892
Netherlands	2005	0.32	0.796	1.000	1.076	1.276	0.895
Netherlands	2006	0.3	0.801	1.000	1.070	1.253	0.897
New Zealand	1980	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1981	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1982	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1983	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1984	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1985	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1986	0.45	1.000	1.000	1.199	1.561	1.038
New Zealand	1987	0.48	1.000	1.000	1.225	1.633	1.043
New Zealand	1988	0.48	1.000	1.000	1.225	1.633	1.043
New Zealand	1989	0.28	1.000	1.000	1.095	1.267	1.018
New Zealand	1990	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1991	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1992	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1993	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1994	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1995	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1996	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1997	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1998	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	1999	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2000	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2001	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2002	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2003	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2004	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2005	0.33	1.000	1.000	1.120	1.338	1.023
New Zealand	2006	0.33	1.000	1.000	1.120	1.338	1.023

Country	year	CIT	Labour r	Oth. Curr.	M&E	B&S	Foreign
Norway	1980	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1981	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1982	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1983	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1984	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1985	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1986	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1987	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1988	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1989	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1990	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1991	0.51	1.000	1.000	1.275	1.654	1.046
Norway	1992	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1993	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1994	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1995	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1996	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1997	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1998	0.28	1.000	1.000	1.104	1.246	1.018
Norway	1999	0.28	1.000	1.000	1.104	1.246	1.018
Norway	2000	0.28	1.000	1.000	1.104	1.246	1.018
Norway	2001	0.28	1.000	1.000	1.104	1.246	1.018
Norway	2002	0.28	0.750	0.750	1.104	1.246	0.793
Norway	2003	0.28	0.750	0.750	1.104	1.246	0.793
Norway	2004	0.28	0.750	0.750	1.104	1.246	0.793
Norway	2005	0.28	0.750	0.750	1.104	1.246	0.793
Norway	2006	0.28	0.750	0.750	1.104	1.246	0.793
Poland	1980	-	-	-	-	-	-
Poland	1981	-	-	-	-	-	-
Poland	1982	-	-	-	-	-	-
Poland	1983	-	-	-	-	-	-
Poland	1984	-	-	-	-	-	-
Poland	1985	-	-	-	-	-	-
Poland	1986	-	-	-	-	-	-
Poland	1987	-	-	-	-	-	-
Poland	1988	-	-	-	-	-	-
Poland	1989	-	-	-	-	-	-
Poland	1990	-	-	-	-	-	-
Poland	1991	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1992	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1993	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1994	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1995	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1996	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1997	0.4	1.000	1.000	1.086	1.487	1.081
Poland	1998	0.36	1.000	1.000	1.072	1.411	1.069
Poland	1999	0.34	1.000	1.000	1.066	1.377	1.063
Poland	2000	0.28	1.000	1.000	1.050	1.284	1.048
Poland	2001	0.28	1.000	1.000	1.050	1.284	1.048
Poland	2002	0.28	1.000	1.000	1.050	1.284	1.048
Poland	2003	0.27	1.000	1.000	1.047	1.270	1.045
Poland	2004	0.19	1.000	1.000	1.030	1.171	1.029
Poland	2005	0.19	1.000	0.904	1.030	1.171	0.983
Poland	2006	0.19	1.000	0.904	1.030	1.171	0.983

Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign	Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign
Portugal	1980	0.23	1.000	1.000	1.038	1.159	1.010	Sweden	1980	0.4	0.877	1.000	1.117	1.400	0.952
Portugal	1981	0.23	1.000	1.000	1.038	1.159	1.010	Sweden	1981	0.4	0.877	1.000	1.117	1.400	0.952
Portugal	1982	0.4	1.000	1.000	1.086	1.355	1.022	Sweden	1982	0.4	0.898	1.000	1.117	1.400	0.965
Portugal	1983	0.4	1.000	1.000	1.086	1.355	1.022	Sweden	1983	0.4	0.898	1.000	1.117	1.400	0.965
Portugal	1984	0.4	1.000	1.000	1.086	1.355	1.022	Sweden	1984	0.32	1.000	1.000	1.082	1.283	1.018
Portugal	1985	0.4	1.000	1.000	1.086	1.355	1.022	Sweden	1985	0.52	1.000	1.000	1.190	1.651	1.042
Portugal	1986	0.4	1.000	1.000	1.086	1.355	1.022	Sweden	1986	0.52	1.000	1.000	1.190	1.651	1.042
Portugal	1987	0.35	1.000	1.000	1.069	1.286	1.018	Sweden	1987	0.52	1.000	1.000	1.190	1.651	1.042
Portugal	1988	0.35	1.000	1.000	1.069	1.286	1.018	Sweden	1988	0.52	1.000	1.000	1.190	1.651	1.042
Portugal	1989	0.37	1.000	1.000	1.074	1.306	1.019	Sweden	1989	0.52	1.000	1.000	1.190	1.651	1.042
Portugal	1990	0.37	1.000	1.000	1.074	1.306	1.019	Sweden	1990	0.4	1.000	1.000	1.117	1.400	1.026
Portugal	1991	0.36	1.000	1.000	1.072	1.299	1.019	Sweden	1991	0.3	1.000	1.000	1.075	1.257	1.017
Portugal	1992	0.36	1.000	1.000	1.072	1.299	1.019	Sweden	1992	0.3	1.000	1.000	1.075	1.257	1.017
Portugal	1993	0.36	1.000	1.000	1.072	1.299	1.019	Sweden	1993	0.3	1.000	1.000	1.075	1.257	1.017
Portugal	1994	0.36	1.000	1.000	1.072	1.299	1.019	Sweden	1994	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	1995	0.36	1.000	1.000	1.072	1.299	1.019	Sweden	1995	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	1996	0.36	1.000	1.000	1.072	1.299	1.019	Sweden	1996	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	1997	0.36	0.816	0.816	1.072	1.299	1.019	Sweden	1997	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	1998	0.37	0.813	0.813	1.075	1.312	1.019	Sweden	1998	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	1999	0.34	0.822	0.822	1.066	1.274	1.017	Sweden	1999	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2000	0.32	0.827	0.827	1.060	1.250	1.016	Sweden	2000	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2001	0.32	0.648	0.648	1.060	1.250	1.016	Sweden	2001	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2002	0.3	0.658	0.658	1.055	1.228	1.014	Sweden	2002	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2003	0.3	0.658	0.658	1.055	1.228	1.014	Sweden	2003	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2004	0.25	1.000	1.000	1.043	1.177	1.011	Sweden	2004	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2005	0.25	0.680	0.680	1.043	1.177	1.011	Sweden	2005	0.28	1.000	1.000	1.068	1.234	1.015
Portugal	2006	0.25	0.680	0.680	1.043	1.177	1.011	Sweden	2006	0.28	1.000	1.000	1.068	1.234	1.015
Spain	1980	0.33	0.851	0.851	0.851	0.966	0.857	Switzerland	1980	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1981	0.33	0.851	0.851	0.851	0.966	0.857	Switzerland	1981	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1982	0.33	0.851	0.851	0.851	0.966	0.857	Switzerland	1982	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1983	0.33	0.851	0.851	0.851	0.966	0.857	Switzerland	1983	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1984	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1984	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1985	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1985	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1986	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1986	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1987	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1987	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1988	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1988	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1989	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1989	0.3	1.000	1.000	1.052	1.221	1.014
Spain	1990	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1990	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1991	0.35	0.769	0.769	0.538	0.665	0.752	Switzerland	1991	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1992	0.35	0.739	0.739	0.508	0.634	0.722	Switzerland	1992	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1993	0.35	0.739	0.739	0.508	0.634	0.722	Switzerland	1993	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1994	0.35	0.739	0.739	0.508	0.634	0.722	Switzerland	1994	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1995	0.35	0.739	0.739	0.508	0.634	0.722	Switzerland	1995	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1996	0.35	0.652	0.652	0.652	1.175	0.678	Switzerland	1996	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1997	0.35	0.652	0.652	0.652	1.367	0.687	Switzerland	1997	0.29	1.000	1.000	1.048	1.204	1.013
Spain	1998	0.35	0.652	0.652	0.652	1.367	0.687	Switzerland	1998	0.28	1.000	1.000	1.046	1.194	1.012
Spain	1999	0.35	0.652	0.652	0.652	1.367	0.687	Switzerland	1999	0.25	1.000	1.000	1.040	1.171	1.011
Spain	2000	0.35	0.652	0.652	0.652	1.367	0.687	Switzerland	2000	0.25	1.000	1.000	1.040	1.171	1.011
Spain	2001	0.35	0.498	0.498	1.000	1.367	0.566	Switzerland	2001	0.25	1.000	1.000	1.039	1.168	1.010
Spain	2002	0.35	0.498	0.498	1.000	1.367	0.566	Switzerland	2002	0.25	1.000	1.000	1.039	1.166	1.010
Spain	2003	0.35	0.498	0.498	1.000	1.367	0.566	Switzerland	2003	0.24	1.000	1.000	1.038	1.162	1.010
Spain	2004	0.35	0.498	0.498	1.000	1.367	0.566	Switzerland	2004	0.24	1.000	1.000	1.038	1.162	1.010
Spain	2005	0.35	0.498	0.498	1.000	1.367	0.566	Switzerland	2005	0.21	1.000	1.000	1.032	1.138	1.009
Spain	2006	0.35	0.498	0.498	1.000	1.367	0.566	Switzerland	2006	0.21	1.000	1.000	1.032	1.138	1.009

Country	year	CIT	Labour	Oth. Curr.	M&E	B&S	Foreign
United Kingdom	1980	0.52	1.000	1.000	1.000	1.000	1.000
United Kingdom	1981	0.52	1.000	1.000	1.000	1.000	1.000
United Kingdom	1982	0.52	1.000	1.000	1.000	1.000	1.000
United Kingdom	1983	0.52	1.000	1.000	1.000	1.000	1.000
United Kingdom	1984	0.5	1.000	1.000	1.000	1.000	1.000
United Kingdom	1985	0.45	1.000	1.000	1.000	1.000	1.000
United Kingdom	1986	0.4	1.000	1.000	1.000	1.000	1.000
United Kingdom	1987	0.35	1.000	1.000	1.000	1.000	1.000
United Kingdom	1988	0.35	1.000	1.000	1.000	1.000	1.000
United Kingdom	1989	0.35	1.000	1.000	1.000	1.000	1.000
United Kingdom	1990	0.35	1.000	1.000	1.000	1.000	1.000
United Kingdom	1991	0.35	1.000	1.000	1.000	1.000	1.000
United Kingdom	1992	0.33	1.000	1.000	1.000	1.000	1.000
United Kingdom	1993	0.33	1.000	1.000	1.000	1.000	1.000
United Kingdom	1994	0.33	1.000	1.000	1.000	1.000	1.000
United Kingdom	1995	0.33	1.000	1.000	1.000	1.000	1.000
United Kingdom	1996	0.33	1.000	1.000	1.000	1.000	1.000
United Kingdom	1997	0.33	1.000	1.000	1.000	1.000	1.000
United Kingdom	1998	0.31	1.000	1.000	1.000	1.000	1.000
United Kingdom	1999	0.31	1.000	1.000	1.000	1.000	1.000
United Kingdom	2000	0.3	1.000	1.000	1.000	1.000	1.000
United Kingdom	2001	0.3	0.893	0.893	1.000	1.000	0.904
United Kingdom	2002	0.3	0.893	0.893	1.000	1.000	0.904
United Kingdom	2003	0.3	0.893	0.893	1.000	1.000	0.904
United Kingdom	2004	0.3	0.893	0.893	1.000	1.000	0.904
United Kingdom	2005	0.3	0.893	0.893	1.000	1.000	0.904
United Kingdom	2006	0.3	0.893	0.893	1.000	1.000	0.904
United States	1980	0.46	1.000	1.000	1.141	1.377	1.026
United States	1981	0.46	0.921	0.921	1.141	1.377	0.955
United States	1982	0.46	0.921	0.921	1.141	1.377	0.955
United States	1983	0.46	0.921	0.921	1.141	1.377	0.955
United States	1984	0.46	0.921	0.921	1.141	1.377	0.955
United States	1985	0.46	0.921	0.921	1.141	1.425	0.957
United States	1986	0.46	0.937	0.937	1.141	1.439	0.972
United States	1987	0.4	0.943	0.943	1.111	1.483	0.979
United States	1988	0.34	0.948	0.948	1.086	1.373	0.977
United States	1989	0.34	0.957	0.957	1.086	1.373	0.985
United States	1990	0.34	0.958	0.958	1.086	1.373	0.986
United States	1991	0.34	0.958	0.958	1.086	1.373	0.986
United States	1992	0.34	0.958	0.958	1.086	1.373	0.986
United States	1993	0.35	0.958	0.958	1.089	1.390	0.987
United States	1994	0.35	0.958	0.958	1.089	1.390	0.987
United States	1995	0.35	1.000	1.000	1.089	1.390	1.024
United States	1996	0.35	0.958	0.958	1.089	1.390	0.987
United States	1997	0.35	0.958	0.958	1.089	1.390	0.987
United States	1998	0.35	0.958	0.958	1.089	1.390	0.987
United States	1999	0.35	0.958	0.958	1.089	1.390	0.987
United States	2000	0.35	0.958	0.958	1.089	1.390	0.987
United States	2001	0.35	0.958	0.958	1.089	1.390	0.987
United States	2002	0.35	0.958	0.958	1.089	1.390	0.987
United States	2003	0.35	0.958	0.958	1.089	1.390	0.987
United States	2004	0.35	0.958	0.958	1.089	1.390	0.987
United States	2005	0.35	0.958	0.958	1.089	1.390	0.987
United States	2006	0.35	0.958	0.958	1.089	1.390	0.987

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