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Competitive Alternatives 2010

Special Report: Focus on Tax

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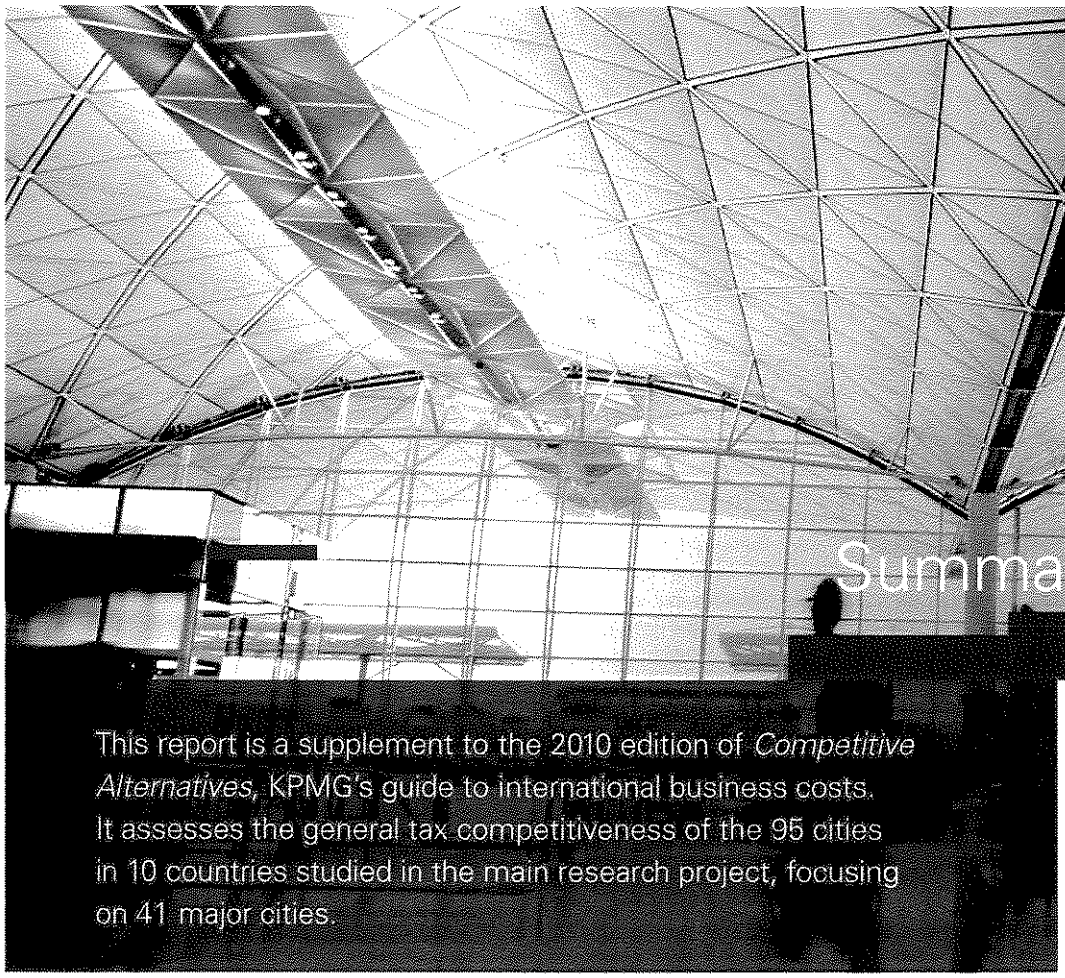


1 Summary

This report is a supplement to the 2010 edition of *Competitive Alternatives*, KPMG's guide to international business costs. It assesses the general tax competitiveness of the 95 cities in 10 countries studied in the main research project, focusing on 41 major cities.

This report is a supplement to the 2010 edition of *Competitive Alternatives*, KPMG's guide to international business costs. It assesses the general tax competitiveness of the 95 cities in 10 countries studied in the main research project, focusing on 41 major cities. The 10 countries are Australia, Canada, France, Germany, Italy, Japan, Mexico, the Netherlands, the United Kingdom, and the United States. Details of the cities covered are in Appendix A.

Our goal in preparing this supplement is to offer a comprehensive methodology to assess the numerous and complex factors affecting a company's tax burden.

To this end, this report compares the total tax burden faced by companies in each country and city, including:

- Corporate income taxes
- Capital taxes
- Sales taxes
- Property taxes
- Miscellaneous local business taxes
- Statutory labor costs (i.e., statutory plan costs and other wage-based taxes).

Total tax costs are compared between countries and cities using a Total Tax Index (TTI) for each location. The TTI is a measure of the total taxes paid by corporations in a particular location, expressed as a percentage of total taxes paid by corporations in the US. Thus, the United States has a TTI of 100.0, which represents the benchmark against which the other countries and cities are scored. (For details of the calculation, see Appendix B).

This study compares a number of model business operations to assess the average annual tax costs faced by these businesses during their first 10 years of operation. The model businesses are assumed to be foreign-owned and newly located in each jurisdiction, giving rise to potential incentives for investment and/or new job creation. Incentives based on generally available incentive programs in each jurisdiction are included in this study.

The three major tax components analyzed in this study are as follows:

- **Corporate income tax (CIT):** Companies are assumed to have a standard level of net income before income tax, in US$, in all locations. In this way, the amount of income tax paid can be compared among locations both in absolute dollars and as effective rates.
- **Other corporate taxes (OCT):** Other corporate taxes include capital taxes, sales taxes, property taxes, and miscellaneous business taxes. These taxes are based on actual business costs that would be incurred by each business in each location. For example, property tax costs in each US city are calculated by applying the property tax assessment rules for each city to actual property values for that city.
- **Statutory labor costs (SLC):** These costs include both statutory plan costs and other wage-based taxes. These costs are calculated based on rates and rules of each jurisdiction, as applied to actual wage and salary levels for that jurisdiction. For example, labor taxes are based on Mexican wage rates in Mexico and German wage rates in Germany, reflecting actual costs incurred by companies operating in different jurisdictions.

Tax rates used in this study are those in effect as at January 1, 2010. Tax calculations over the 10-year analysis horizon incorporate future tax changes announced on or before January 1, 2010, that will come into force during the next 10 years.

Key findings

In addition to the observations in the rest of this report regarding the overall tax costs of specific locations for purposes of making business site decisions, our analysis of the results of this study has led to the following general observations.

Tax policy varies widely by country. Our study reveals that there is no standard approach in setting tax policy among the countries examined. Although the types of taxes used to raise government revenues are more or less the same, there is a huge range in how these taxes are weighted and applied. Some countries have a tax policy focused on delivering a low corporate income tax rate in order to compete for more businesses. These countries may need to rely more heavily on other taxes, such as sales or payroll taxes, to derive their tax revenues. Similarly, some countries use their tax policies to attract certain types of businesses with targeted incentives for activities such as manufacturing and research & development (R&D). A country's tax policy choices can significantly affect the tax cost of doing business in that country.

Differences in how taxes are weighted and applied create complexity. While companies often use a country's effective corporate income tax rate as a proxy for overall tax costs in a location, this rate does not tell the whole story. Variations in how taxes are weighted and applied complicate efforts to compare tax costs effectively and highlight the need to make comparisons based on the complete range of tax costs that apply in each location in the context of the specific business. Consider France and Mexico; as discussed in Chapter 3, these two countries rank 4th and 6th, respectively, for their rates of effective corporate income tax. However, once all other taxes and statutory labor costs are considered, Mexico's rank rises to 1st, while France falls to 10th, largely due to its heavier reliance on payroll and other taxes.

Tax costs vary widely by industry. The overall results for each location combine the results of different types of business operations, and results among the different business sectors vary widely. Companies in the services industries generally have higher salary costs than other companies and so the impact of statutory labor costs on these companies is more of an issue. Companies in the manufacturing industry are more capital intensive and less affected by statutory labor costs, so the imposition of capital taxes and the availability of tax incentives for manufacturing activities will be bigger factors in location decisions. R&D operations see the most extreme variation among countries in tax costs due to intense competition among some countries to attract more R&D businesses by offering more generous tax incentives.

Tax costs vary more widely than most other costs. In the main *Competitive Alternatives 2010* study, we noted that income taxes typically represent up to 12 percent of location-sensitive costs. This cost is relatively low compared to other costs, such as labor (46 – 85 percent of location-specific costs), facilities (2 – 18 percent) and transportation (5 – 18 percent). However, even though taxes do not comprise the largest proportion of overall costs, there is much greater variation in tax costs among locations. Since tax costs are likely to range more widely than other costs, they can take on greater importance than other costs in business location decisions.

Results by country

The overall results for all locations are based on average results from 17 separate business operations, encompassing 11 manufacturing operations, three corporate and IT services operations, and three R&D operations.

Among the countries studied, **Mexico** has the lowest TTI at 59.9. In other words, total tax costs in **Mexico** are 40.1 percent lower than in the **United States**, which has a TTI of 100.0 and represents the benchmark against which the other countries and cities are scored. **Canada**, the **Netherlands**, **Australia**, and the **United Kingdom** also have a Total Tax Index below the **United States**. At the other end of the spectrum, **France's** TTI of 181.4 signifies that total tax costs in **France** are 81.4 percent higher than the US standard.

The TTI rankings of countries in 2010 are generally consistent with the 2008 rankings. **Canada** has moved ahead of the **Netherlands**, and the **United Kingdom** has moved ahead of the **United States**—although, these pairs of countries were very closely grouped in 2008, such that marginal changes in TTI have resulted in changes in rankings. The more substantive changes between 2008 and 2010 are:

- **Japan** falls two places, from seventh to ninth, and is the only country to see an increase in its TTI between 2008 and 2010. This is largely due to the strong appreciation of the Japanese yen over the last 2 years, which increases the cost (in US dollars) of non-income based taxes paid in Japan.
- **Italy** moves up one ranking, from ninth to eighth, and sees the largest decrease in TTI of any country. This improvement for Italy is largely due to economic stimulus tax incentives offered in Italy for new business investment occurring in 2010; therefore, this improvement may well be short lived.
- **Australia's** rank does not change—remaining in fourth place—but it sees the second largest decrease in TTI among the countries studied. This improvement is largely due to changes in Australia's R&D tax incentives in 2010, which are discussed further in Chapter 6.

Overall, the changes in TTI for all countries are the product of a number of factors, including:

- **Changes in tax rates**, including tax rate increases in Mexico and decreases in Canada.
- **Incentive changes**, including new or enhanced incentives in Australia, Italy, and Japan.
- **Exchange rate changes**, including the significant appreciation of the Japanese yen and the significant depreciation of the British pound over the last 2 years. Changes in exchange rates influence the TTI results by changing the US dollar cost associated with taxes not based on income.
- **Lesser factors**, including changes in underlying business costs in each location (e.g., property values and labor rates), an expansion of the analysis from 10 types of business operations in 2008 to 17 in 2010, and changes in the mix of cities examined in each country.

Rank	Country	Total Tax Index			2008 Rank
		2010	2008	Change	
1	Mexico	59.9	70.2	-10.3	1
2	Canada	63.9	78.8	-14.9	3
3	Netherlands	76.4	78.3	-1.9	2
4	Australia	80.8	95.9	-15.1	4
5	United Kingdom	88.0	101.6	-13.6	6
6	United States	100.0	100.0	0.0	5
7	Germany	124.1	128.2	-4.1	8
8	Italy	129.6	172.0	-42.4	9
9	Japan	138.0	120.8	17.2	7
10	France	181.4	185.3	-3.9	10

Results by city

For the purposes of this study, we compared 95 cities from the 10 countries noted above. In this report, we highlight the 41 major international cities with estimated metro area populations of at least 2 million, as we believe these major centers will be of most interest to companies seeking to locate operations in foreign countries. Detailed results for all cities are presented in Appendix A.

The results for the 41 major cities generally follow the results by country above, with a few exceptions:

- **Vancouver** (TTI = 50.5) ranks ahead of the Mexican cities, even though Mexico outranks Canada in the country rankings. Tax costs in Vancouver are somewhat lower than the two largest Canadian cities—**Montreal** (60.3) and **Toronto** (67.6).
- **London, UK** (TTI = 98.6), ranks significantly behind both Manchester (77.4) and the UK average (88.0). This result is due to high real estate values and related high property tax costs, combined with much higher wages and related statutory labor costs.
- Indeed, underlying business cost fundamentals do have a significant impact on total tax costs. In the *Competitive Alternatives 2010* study, this same group of cities was ranked based on total business costs (see study exhibit 4.1). While those rankings on total business costs differ from the total tax cost rankings presented here, there are some similarities in the general order of cities, from least to most expensive.

Results by sector

In this section, we present the TTI based on the overall results for each location. The overall results are based on a number of different types of business operation, and results vary among the different business sectors, as follows:

- **Manufacturing** (see Chapter 4) is characterized by the frequency with which special tax incentives, such as rate reductions or credits for job creation or investment, are used to stimulate manufacturing. Taxes on capital and property tend to be much more significant for capital-intensive manufacturing operations.
- **Corporate & IT services** (see Chapter 5) operations are the most "pure" representation of the corporate income tax system, as fewer special tax incentives apply to these activities. Other taxes on capital and property are far less significant for service operations, while labor taxes are far more significant than for manufacturing.
- **R&D** operations (see Chapter 6) are separately assessed due to the strong focus most countries and regions have on fostering innovation, through, for example, the provision of significant tax incentives for R&D activities.

Rank	41 Large International Cities	Total Tax Index
1	Vancouver, CA	50.5
2	Monterrey, MX	59.8
3	Mexico City, MX	60.0
4	Montreal, CA	60.3
5	Toronto, CA	67.6
6	The Hague, NL	76.1
7	Amsterdam, NL	76.7
8	Manchester, UK	77.4
9	Melbourne, AU	78.9
10	Baltimore, US	81.8
11	Sydney, AU	82.8
12	Minneapolis, US	86.5
13	Boston, US	87.9
14	Philadelphia, US	88.9
15	Detroit, US	90.7
16	Atlanta, US	91.1
17	Tampa, US	91.6
18	Seattle, US	92.1
19	Phoenix, US	92.1
20	Chicago, US	92.8
21	Denver, US	94.3
22	Miami, US	96.1
23	Dallas-Fort Worth, US	98.0
24	Houston, US	98.1
25	London, UK	98.6
26	Portland, US	100.6
27	New York City, US	101.9
28	North Virginia (Metro DC), US	102.8
29	San Diego, US	102.8
30	Riverside-San Bernardino, US	102.9
31	St. Louis, US	106.5
32	Los Angeles, US	107.3
33	San Francisco, US	109.5
34	Berlin, GE	121.8
35	Milan, IT	125.5
36	Frankfurt, GE	126.4
37	Osaka, JP	130.3
38	Rome, IT	133.8
39	Tokyo, JP	145.5
40	Lyon, FR	175.8
41	Paris, FR	187.0

2 Measuring Total Tax Costs

This report uses two separate measures for total tax costs, with both measures incorporating all manner of taxes levied on corporations—broadly speaking, income taxes, capital taxes, sales taxes, property taxes, miscellaneous local business taxes, and statutory labor costs (that is, statutory plan costs and other wage-based taxes). As described in more detail in Appendix B, the two measures are:

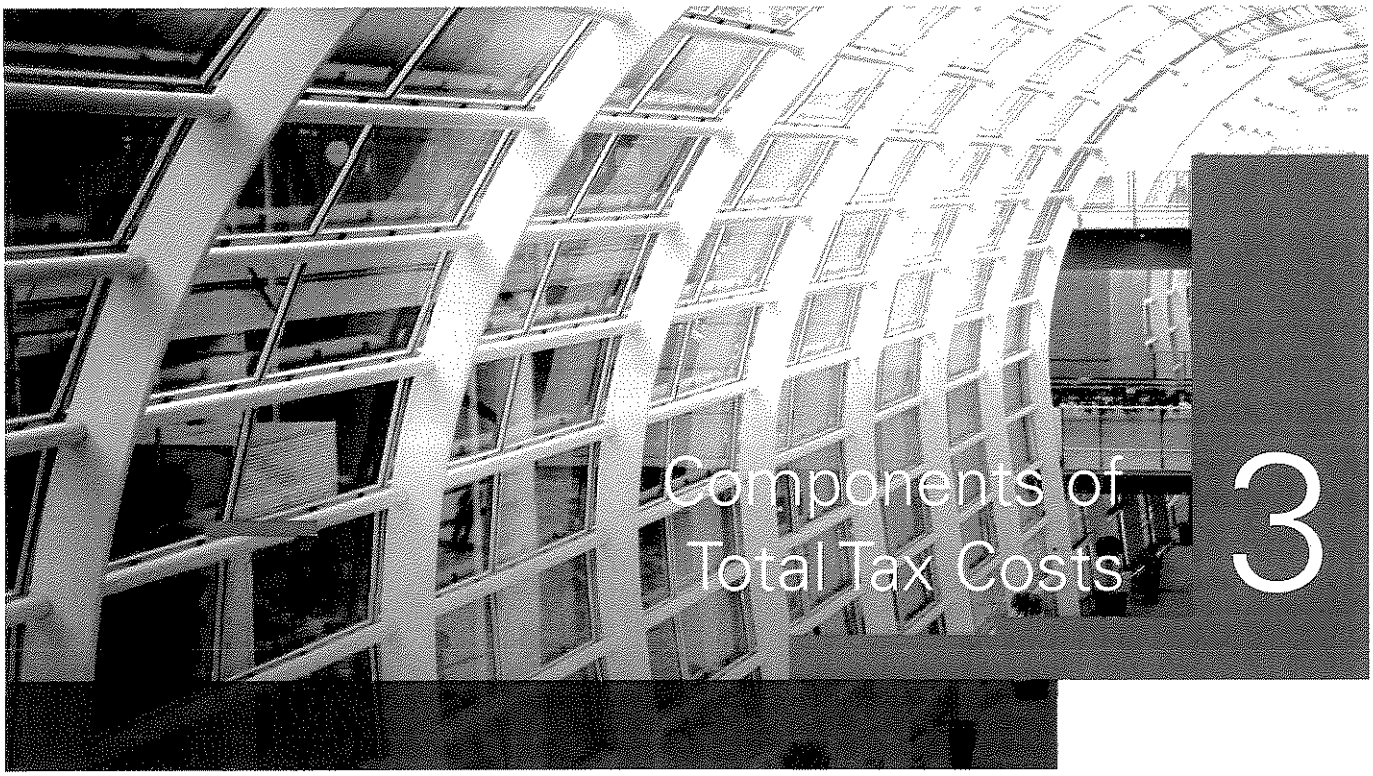
- **Total Tax Index (TTI)**, which compares the total actual tax cost (in US dollars) for each jurisdiction, is the primary measure used throughout this report to compare tax burdens. For calculating income taxes, net income before income taxes has been standardized as a fixed dollar amount in all locations, so that total taxes paid can be realistically compared in absolute dollar terms.
- **Total Effective Tax Rate (TETR)**, which expresses total tax costs as an effective rate and contextualizes tax burden relative to income. TETR is the sum of the effective rates of corporate income tax (net of incentives), other corporate taxes, and statutory labor costs expressed as a percentage of standardized net income before income taxes.

Rankings obtained using TTI and TETR are identical.

In calculating taxes, the study includes income taxes imposed by all levels of government (national, regional, and/or local), reflecting specific tax income rules for each jurisdiction (as discussed further in Chapter 3). Other taxes are also calculated according to specific local rules. Labor taxes and other taxes not based on income are calculated to reflect actual business costs in each location using data on wage rates, real property values, and other relevant business cost factors from KPMG's *Competitive Alternatives 2010* comparison of international business costs. For example:

- Statutory labor costs are calculated based on Mexican wage rates in Mexico, and German wage rates in Germany, using contribution rates and rules applicable to the statutory programs in each country. In this way, the final costs reflect real world costs incurred by companies operating in different jurisdictions.
- Property tax costs are calculated based on Japanese property values in Japan and UK property values in the United Kingdom, using local property tax rates applicable in each location. Again, this reflects real world costs incurred by companies operating in different jurisdictions.

For more details, including a numerical example of how TTI and TETR are calculated, see Appendix B.



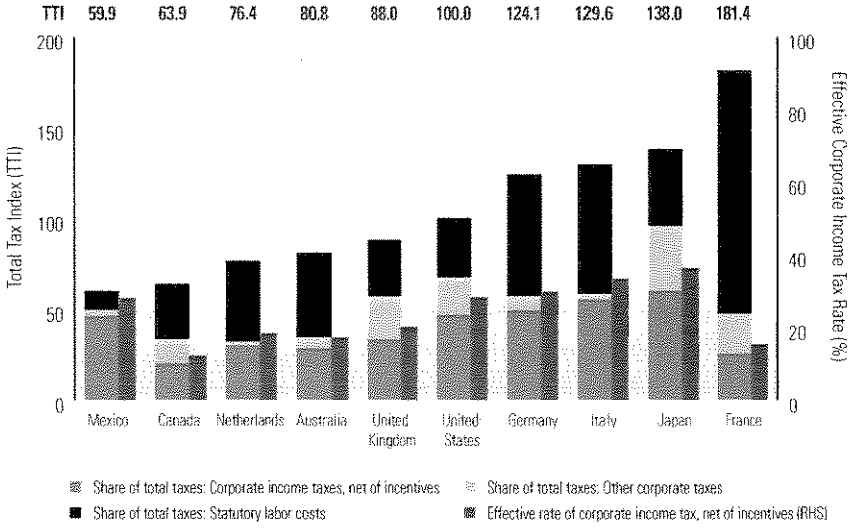
3 Components of Total Tax Costs

Total tax costs analyzed in this study comprise three core components, as follows:

- Corporate income taxes
- Other corporate taxes (such as capital, property, sales, and miscellaneous local taxes)
- Statutory labor costs (representing the employer portion of required pension, unemployment, medical plan, or workplace injury insurance, or other similar plan or tax payments).

In the chart at right, the bars present the TTI for each of the 10 countries studied, and also illustrate the relative share of each tax component in total tax costs. The chart also presents the effective corporate income tax rate in each country. As seen in the chart, effective corporate income tax rates closely match the share of income taxes in total tax costs, but do not provide any useful information regarding the total tax costs in each country. Full consideration of other taxes and statutory labor costs is essential to obtain an understanding of the total tax costs in any country.

Total Tax Index by Type of Tax, and Effective Corporate Income Tax Rates – Overall



The importance of the three tax components varies quite significantly among countries:

- Effective corporate income taxes (and the share of corporate income taxes in total tax costs) are lowest in **Canada** (12.2 percent effective corporate income tax rate), **France** (15.4 percent), and **Australia** (17.2 percent). At the other end of the scale, effective corporate income taxes are highest in **Germany** (29.8 percent), **Italy** (33.4 percent), and **Japan** (36.3 percent). These effective income tax rates are significantly lower than the nominal tax rates in most countries due to the inclusion of various incentives, including R&D tax incentives, in these calculations.
- Other corporate taxes represent the smallest component of total tax costs in all of the countries examined. However, even here, the impact of these taxes varies widely between countries. In the **Netherlands** (2.4 percent of total tax costs), **Italy** (2.5 percent), and **Mexico** (5.6 percent), other corporate taxes represent, by far, the smallest component of total tax costs. The share of total tax costs accounted for by other corporate taxes is higher in the **United States** (20.7 percent of total tax costs), **Canada** (20.9 percent), **Japan** (25.8 percent), and the **United Kingdom** (26.8 percent).
- The most dramatic variations between countries are in statutory labor costs. In **Mexico**, **Japan**, the **United Kingdom**, and the **United States**, statutory labor costs represent a smaller share of total tax costs than corporate income taxes, and these costs comprise less than 36 percent of total tax costs. In **Australia** and all of the continental **European countries** studied, statutory labor costs represent more than one-half of total tax costs.

These differences highlight the different ways in which countries collect taxes to fund required programs and services, and also highlight the importance of basing international (or inter-regional) tax comparisons on factors beyond the corporate income tax rate. To further highlight the impact of other corporate taxes and statutory labor costs, compare the results for **France** and **Mexico**. These two countries rank 2nd and 6th, respectively, for their effective corporate income tax rates, but rank 10th and 1st, respectively, for total tax costs after considering other taxes and statutory labor costs.

Income taxes

Income taxes represent the first major component of total tax costs. While countries are often compared based on the national corporate income tax rate, this falls far short of providing a comprehensive picture of actual income tax costs in a country. In some countries, such as the United Kingdom and Australia, income tax only applies at the national level, while in other countries separate income taxes may also be levied by states or provinces (such as in the United States and Canada), by local governments (such as in Germany), or by all three levels of government (such as in Japan and in some US cities).

Also, there is the issue of whether an income tax actually exists at all in a jurisdiction, with some US states (Washington, Texas) claiming no income tax, but instead having taxes based on gross receipts with limited deductions. Clearly, such taxes are based on income—just gross income instead of net income—but giving rise to the likelihood of a tax liability, even if the company is in a net loss position. Indeed, the move from net income taxes to gross receipts taxes appears to be somewhat of a trend in the United States; Michigan, Ohio, and Texas have all introduced gross receipts taxes in recent years.

However, stepping back to the beginning of the income tax calculation process, one must also consider the actual base to which tax rates will be applied. Most jurisdictions require some adjustments to net income before income tax when determining taxable income. Some examples of the types of adjustments that need to be considered in the various countries are as follows:

- In the United States, rules regarding Qualified Productive Activities Income (QPAI) provide for a deduction equal to 9 percent of net income derived from manufacturing, limited to no more than 50 percent of wages paid. This works out to be effectively equivalent to a 3 percent tax rate reduction for manufacturers on their federal income taxes. Some states allow this additional deduction to flow through to state taxable income calculations.
- In Italy, the regional income tax (Regional tax on productive activities or IRAP) only allows a partial deduction for wage and salary costs. The amount that can be deducted has recently decreased, and for most workers deductible costs are limited to the first €4,600 of wages or salaries, plus the employer's share of social security payments. These rules result in a taxable income base that is far higher than net income before tax—especially for firms where payroll represents a major business cost.
- In Germany, the regional income tax (Local trade tax) disallows a deduction for 25 percent of interest paid and 20 percent of lease or rental payments on movable assets. This results in higher taxable income, especially for capital-intensive firms with significant equipment under lease.
- Different deductibility rules even exist for income taxes themselves. In the United States, state income taxes paid are deducted for federal income tax purposes. At the state level, a mix of rules exist, with some states allowing no deduction for income taxes, other states allowing deductions for taxes paid only to other states, others allowing a deduction only for taxes paid in their own state, some allowing a deduction for federal taxes paid, and some allowing a combination of the above.
- While the model business operations used in this study did not contain specific assumptions regarding items such as bad debts, provisions, asset sales, dividend distributions, and charitable donations, such items can cause further significant adjustments to taxable income.

Once taxable income has been determined, then calculation of gross income tax begins:

- While many countries impose a simple flat rate of corporate income tax, such as 30 percent in both Australia and Mexico, other countries adopt a variety of progressive tax rate structures. For example, the Netherlands has a relatively simple progressive tax structure: 20 percent on the first €200,000 of taxable income, and 25.5 percent on the excess. At the other end of the spectrum is Japan, which has a complex system in which three levels of government levy four separate taxes at varying rates based on net taxable income, corporate capital, and national corporation income tax paid.

- Once regular income tax has been determined, it is also necessary to consider the possibility of minimum tax rules. For example:
  - In the United States, the Alternative Minimum Tax (AMT) system recalculates net taxable income with a number of adjustments, including less favorable depreciation write-offs. AMT income is subject to tax at a rate of 20 percent, and AMT is only payable if it exceeds regular income tax calculated for the year.
  - In 2010, Mexico completed its phase-in of a new minimum tax system called Flat Rate Business Tax (IETU). The calculation of this tax starts with total income (excluding interest income) and then allows deductions for the full cost of assets, materials, goods, and independent services purchased, as well as some minor taxes paid. The IETU tax rate of 17.5 percent is then applied to calculate gross IETU. Next, a credit calculated at the IETU tax rate is allowed for payroll (excluding the cost of any benefits that are not taxable to the employees). Finally, a credit is allowed for the full amount of regular corporate income tax paid. Any remaining net IETU must be paid in addition to regular corporate income tax.

Finally, following the calculation of gross income tax and any minimum tax liability, income tax credits also need to be factored in to the analysis of net income tax costs.

Examples of such credits are as follows:

- Many countries offer R&D tax credits, which are discussed in Chapter 6.
- In the United States, most states offer some form of income tax credit for new investment and/or job creation to help stimulate economic development. The scope of this study includes significant, commonly available tax credit programs with clearly defined eligibility criteria. Discretionary or negotiated tax credits are not included in this analysis.
- In Canada, federal income tax credits for investment in manufacturing facilities and equipment are available, but only in certain parts of the country.
- In countries that have minimum tax rules, minimum tax paid in prior years in excess of regular income tax for those years may also give rise to credits that can offset future income tax.

All of these issues need to be considered to effectively compare income tax burdens between countries and cities, and have been considered in this study.

Other corporate taxes

The other corporate taxes considered in this study include capital taxes, sales taxes, property taxes, and miscellaneous local business taxes. The study disregards as immaterial any taxes where the estimated cost to the business is less than US$1,000 per year.

Capital taxes only apply in certain countries and regions as follows:

- In Canada, the former national capital tax has been eliminated, as have some provincial capital taxes. All remaining provinces are currently phasing out their capital taxes on corporations other than financial institutions, and such taxes will all be eliminated by the end of 2012.
- In the United States, capital taxes (in various forms) apply in about 40 percent of all locations examined.
- In Japan, prefectural and municipal capital taxes apply in the locations considered in this study.

Sales and transaction taxes come in various forms in different countries and regions, and impact upon companies differently:

- **Non-refundable sales taxes** apply in most US states and in half of all Canadian provinces. However, two major Canadian provinces—Ontario and British Columbia—are converting their existing non-refundable sales taxes to refundable GST-style sales taxes on July 1st, 2010. This change will leave just three of the 10 Canadian provinces (Manitoba, Saskatchewan, and Prince Edward Island) imposing non-refundable sales taxes.

Where non-refundable sales taxes apply, exemptions are generally available for many of the costs incurred by a manufacturer to avoid the compounding of taxes into the price of goods at each stage of the production process. However, in some instances, jurisdictions may subject an item to sales tax but provide equivalent tax relief through another mechanism. For example, in Canada, the province of Saskatchewan imposes a 5 percent sales tax on purchases of machinery and equipment, but also provides manufacturers with an offsetting 5 percent income tax credit on investments in machinery and equipment.

- **Gross receipts taxes** apply in a small but growing number of jurisdictions in the United States, either instead of, or in addition to, state or local income taxes. In 2010, France also introduced a new modified gross receipts tax based on gross value added.
- **Refundable value-added taxes** (VAT or GST). These taxes apply in all of the countries included in this study, except for the United States. For this analysis, value-added taxes are excluded since their refundable nature means there is no net cost to a business once input tax credits (refunds) have been claimed. Although these taxes impose a cost on companies in terms of cash flow timing and administration, such costs are not considered material to this study.
- **Land and share transfer taxes**. These taxes have not been considered in this analysis due to the one-time nature of such taxes, rather than recurring business expenses.

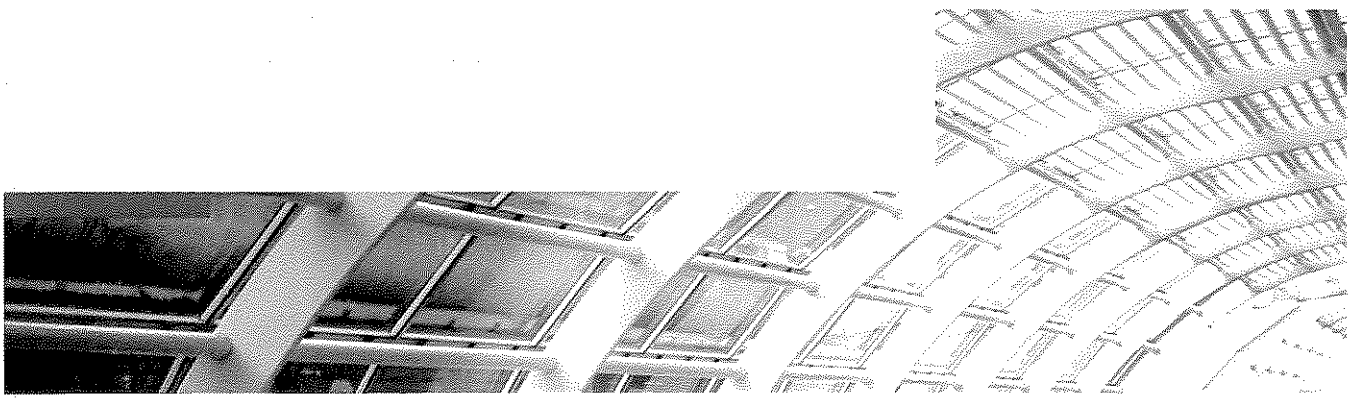
Property-based taxes apply in all countries and cities studied, although the applicable categories of assets, tax rates, tax bases, and administration of these taxes can vary significantly between locations. In this study, property taxes were calculated based on actual local tax rates and actual real estate values in each city, and adjusted, where required, to reflect the property assessment method for each location. Property-based taxes on real estate are included in this analysis, as follows:

- **For manufacturing operations** (which for the purposes of this research, we assumed are located in single-occupant industrial facilities), all property taxes are included in the analysis.
- **For service operations** (which for the purposes of this research, we assumed to use leased office space), property-based taxes are included in the analysis only where the tax is levied directly on the business occupant, rather than the property owner (landlord). In our broader *Competitive Alternatives 2010* study of total business costs, taxes passed on by a landlord to a tenant were captured indirectly as part of total office leasing costs, but were not separately identifiable and cannot be included in this study.

Miscellaneous local business taxes. Most taxes levied by all levels of government are captured within one of the other broad tax definitions outlined in this chapter. However, some miscellaneous local business taxes do apply and have been considered in this analysis if material to the business operation. For example, in the United States, a local business tax of US$4.50 per employee per annum applies to many types of business located in Miami.

Statutory labor costs

All countries studied levy a variety of charges and taxes on payroll, which we refer to collectively as statutory labor costs. In some cases, such as the payroll taxes levied by Australian states, these taxes go to general revenue. However, in most cases, they relate to specific statutory plans, such as social security, medical care, unemployment insurance, and/or workplace injury insurance. The number, scope, rates, and complexity of these taxes can vary immensely between countries and regions.



4 Manufacturing

Results by country

The ranking of countries for manufacturing is generally consistent with the overall results presented above (as manufacturing represents a significant component within the overall result).

The only exception is that for manufacturing, **Italy** moves ahead of **Germany** to rank in 7th place among the 10 countries. This change in ranking is principally due to Germany having higher property-based taxes than Italy, and the importance of this tax category to manufacturers.

The TTI rankings of countries in 2010 are also generally consistent with the 2008 rankings. There is some swapping of rankings between relatively closely grouped countries, such as **Canada**, the **Netherlands**, the **United Kingdom**, and the **United States**. The only significant change in ranking since 2008 is for **Italy**, which moved up from 9th place in 2008 to 7th in 2010 due in part to special incentive deductions introduced to stimulate business investment in 2009–10.

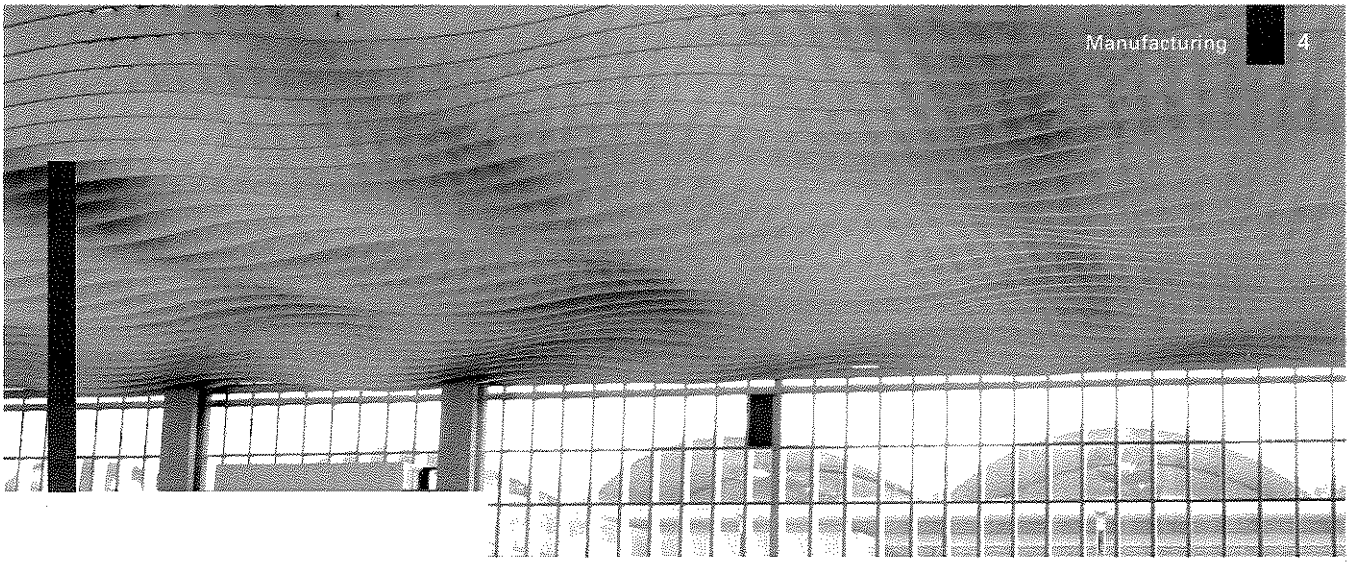
Rank	Country	Total Tax Index	2008 Rank
1	Mexico	57.9	1
2	Canada	67.7	3
3	Netherlands	74.9	2
4	Australia	80.9	4
5	United Kingdom	94.9	6
6	United States	100.0	5
7	Italy	108.2	9
8	Germany	119.7	7
9	Japan	143.5	8
10	France	172.7	10

Results for major cities

The results for the 41 major international cities are generally consistent with the national results. Once again, **Vancouver** represents an exception, ranking ahead of the two Mexican cities—**Monterrey** and **Mexico City**—as the location with the lowest total tax costs.

One noticeable difference in results for manufacturing, as compared to the overall results, is the improved performance of the two Italian cities. **Milan** moves up from 35th in the overall ranking to 30th for manufacturing, with a 20.1 point decrease in its TTI. Meanwhile, **Rome** moves up (from 38th to 34th) and sees its TTI decrease by 22.8 points. These changes for the Italian cities are due to high taxes related to payroll costs in Italy—a factor that is proportionately less significant to manufacturers than to service firms, resulting in this improved ranking in the manufacturing industries.

Rank	41 Large International Cities	Total Tax Index
1	Vancouver, CA	51.1
2	Monterrey, MX	57.7
3	Mexico City, MX	58.1
4	Montreal, CA	65.5
5	Toronto, CA	69.9
6	The Hague, NL	74.6
7	Amsterdam, NL	75.2
8	Baltimore, US	76.6
9	Melbourne, AU	79.2
10	Manchester, UK	81.1
11	Sydney, AU	82.7
12	Boston, US	84.0
13	Philadelphia, US	84.7
14	Minneapolis, US	85.0
15	Seattle, US	87.0
16	Chicago, US	90.4
17	Tampa, US	90.6
18	Detroit, US	90.9
19	Atlanta, US	91.0
20	Denver, US	93.1
21	Phoenix, US	93.3
22	Miami, US	96.4
23	Dallas-Fort Worth, US	98.2
24	Houston, US	98.3
25	Portland, US	101.4
26	New York City, US	102.6
27	San Diego, US	103.2
28	North Virginia (Metro DC), US	103.5
29	Riverside-San Bernardino, US	103.6
30	Milan, IT	105.4
31	London, UK	108.7
32	Los Angeles, US	108.7
33	St. Louis, US	109.2
34	Rome, IT	111.0
35	San Francisco, US	111.0
36	Berlin, GE	117.9
37	Frankfurt, GE	121.5
38	Osaka, JP	133.1
39	Tokyo, JP	154.0
40	Lyon, FR	168.6
41	Paris, FR	176.8



Impact of tax components

Manufacturing operations are typically characterized by relatively larger facilities and relatively high levels of investment in machinery, equipment, and inventories. All of these items may be subject to property taxes in different jurisdictions. Manufacturers also tend to have higher costs related to materials, utilities, and transportation, which may attract sales taxes in some jurisdictions. Finally, wages and benefits are relatively less significant in the manufacturing sector than in other industry sectors, simply because the size of labor costs is diminished as a share of total costs by process inputs and capital costs.

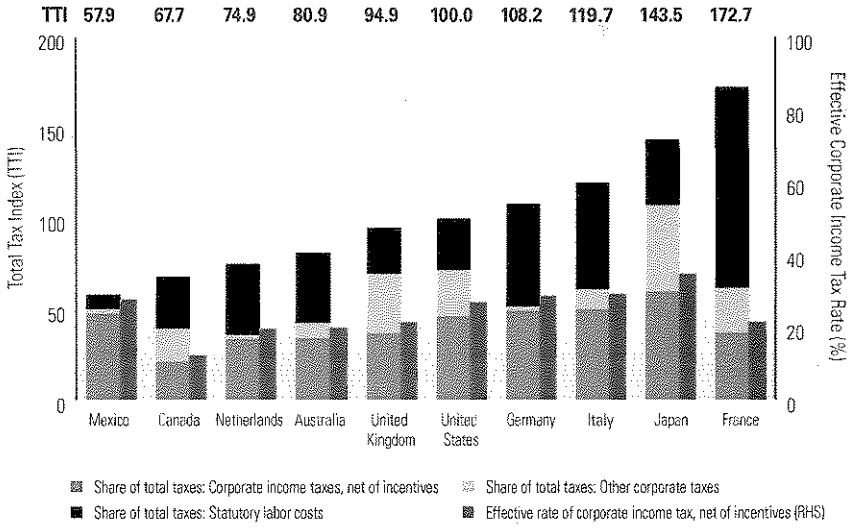
Non-income-based taxes tend to be more significant in this sector, due to factors such as property tax costs on industrial facilities, the impact of non-refundable sales taxes in some locations, and taxes on machinery and equipment and/or employed capital in some locations.

For these reasons, other corporate taxes tend to be more significant in the manufacturing sector, and many countries score their highest effective rates for other corporate taxes in the manufacturing sector. However, these taxes generally still represent only a small portion of total tax costs, and only account for more than 25 percent of total taxes in four countries —the United States, Canada, Japan, and the United Kingdom.

In the chart below, the bars represent the TTI for each of the 10 countries studied, and also illustrate the relative share of each tax component in total tax costs. The chart also summarizes the effective corporate income tax rate in each country.

There are significant differences among jurisdictions in terms of where they gather their taxes. For example, in continental Europe, Australia, and Canada, statutory labor costs are greater than corporate income taxes, while in Mexico, Japan, the United Kingdom, and the United States, the opposite is true.

Total Tax Index by Type of Tax, and Effective Corporate Income Tax Rates – Manufacturing



5 Corporate & IT Services

Results by country

Consistent with the manufacturing and overall results presented above, **Mexico** also has the lowest TTI for corporate and IT services, primarily because of modest costs for statutory labor costs that are calculated on its relatively lower wages. **Canada** and the **United Kingdom** rank second and third for corporate & IT services.

Rank	Country	Total Tax Index	2008 Rank
1	Mexico	62.3	1
2	Canada	64.5	2
3	United Kingdom	84.2	4
4	Netherlands	91.8	6
5	United States	100.0	3
6	Australia	107.8	5
7	Japan	121.2	7
8	Germany	127.7	8
9	Italy	173.9	9
10	France	238.5	10

In contrast, **Italy** and **France** fare less well in this sector, with total tax costs approximately double those of the **United States**. These results also relate to statutory labor costs in these countries, a topic that is explored further below.

Comparing the TTI rankings of countries in 2010 to 2008, there are no changes among either the top ranked countries or the bottom ranked countries, but some movement in the middle of the field. The **United Kingdom** and the **Netherlands** have both moved up in the rankings, while the **United States** and **Australia** have both slipped. However, these four countries are relatively closely grouped in both 2008 and 2010, and the changes in ranking are due to marginal changes in the TTI. These changes are the result of a variety of factors, including the expansion of analysis in this category from a single corporate services operation in 2008, to a range of three corporate & IT services operations in 2010.

Results for major cities

The results for the major international cities are again generally consistent with the national results and the overall city results, except for **Montreal**'s strong ranking relative to other cities in this sector. This is a result of incentives available in Montreal that specifically target firms in the IT sector.

One city that sees a particularly impressive improvement in its ranking in this sector is **London**. Without the high property taxes that burden it for manufacturing, London ranks 7th for total tax costs in this sector, as compared to 31st in the manufacturing sector.

Rank	41 Large International Cities	Total Tax Index
1	Vancouver, CA	58.4
2	Montreal, CA	60.6
3	Monterrey, MX	62.2
4	Mexico City, MX	62.4
5	Toronto, CA	68.4
6	Manchester, UK	81.2
7	London, UK	87.1
8	Atlanta, US	90.4
9	Phoenix, US	91.1
10	Detroit, US	91.5
11	The Hague, NL	91.7
12	Amsterdam, NL	91.9
13	Minneapolis, US	92.5
14	Dallas-Fort Worth, US	94.4
15	Houston, US	94.7
16	Tampa, US	95.4
17	Baltimore, US	96.3
18	Miami, US	96.6
19	Denver, US	97.2
20	St. Louis, US	98.7
21	Chicago, US	99.7
22	Philadelphia, US	100.7
23	North Virginia (Metro DC), US	101.5
24	Boston, US	101.5
25	Riverside-San Bernardino, US	101.6
26	New York City, US	102.0
27	San Diego, US	102.3
28	Portland, US	102.6
29	Los Angeles, US	103.9
30	Melbourne, AU	105.2
31	San Francisco, US	105.8
32	Seattle, US	106.8
33	Sydney, AU	110.4
34	Osaka, JP	120.7
35	Tokyo, JP	121.6
36	Berlin, GE	124.4
37	Frankfurt, GE	130.9
38	Milan, IT	167.2
39	Rome, IT	180.6
40	Lyon, FR	228.1
41	Paris, FR	249.0

Impact of tax components

Corporate & IT services operations tend to be more affected by statutory labor costs, due to the high significance of labor costs among total business costs. The impact of statutory labor costs is especially accentuated in the European countries. France and Italy have moderate wage costs but very high statutory plan percentage rates, while Germany has higher base wages but more moderate statutory plan percentage rates.

The Labor Cost Comparison table shows the differences among countries in terms of salaries and wages, statutory plans, and other benefits. As the table illustrates, statutory labor costs expressed as a percentage of payroll range from a low of 7 percent of payroll in Mexico, to a high of 45 percent of payroll in France. All other countries fall in the lower end of this range.

Labor Cost Comparison

	Salaries & Wages		Benefits				Total Labor	
			Statutory Plans		Other Benefits			
	Average per Employee[1] (US$)	Rank	Percent of Payroll	Rank	Percent of Payroll	Rank	Average per Employee[1] (US$)	Rank
EUROPE								
France	$52,898	2	45%	10	21%	1	$87,764	5
Germany	$73,268	9	16%	8	22%	2	$101,000	9
Italy	$58,462	4	22%	9	29%	8	$88,186	6
Netherlands	$62,919	7	12%	6	28%	6	$88,583	7
United Kingdom	$57,271	3	10%	4	34%	9	$81,970	3
NORTH AMERICA								
Canada	$59,880	5	9%	2	25%	4	$80,079	2
Mexico	$26,319	1	7%	1	29%	7	$35,696	1
United States	$61,897	6	9%	3	36%	10	$89,791	8
ASIA PACIFIC								
Australia	$63,183	8	13%	7	23%	3	$86,032	4
Japan	$77,074	10	10%	5	25%	5	$103,867	10

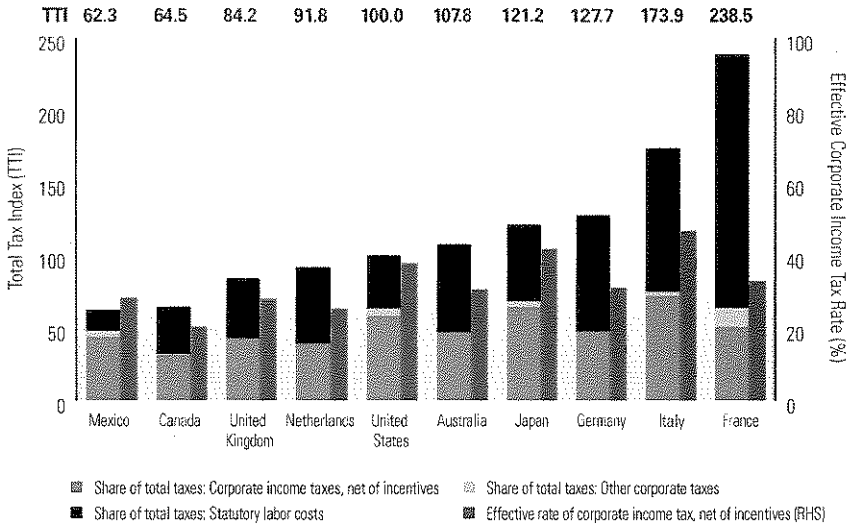
1 Average for 17 operations included in the overall results. Represents 42 different job positions.
Source: *Competitive Alternatives 2010, KPMG's Guide to International Business Location*, Exhibit 5.2

There are also some areas where statutory labor costs alone do not present a full picture. One key area in this regard is health care:

- Public medical plans operate in most countries studied, as compared to the predominantly private medical system in the United States. As a result, in the US, employers cover significant non-statutory costs for private medical insurance. (This is evident in the Labor Cost Comparison table when comparing Other Benefits in the US and Canada: at 36 percent versus 25 percent of payroll, respectively. This comparison is clouded when comparing the European countries, which have significantly higher Other Benefit costs related to paid time not worked—holidays and vacations—as compared to the United States.)
- Even within public medical systems, funding can differ significantly between countries, influencing the cost to business. Canada's public medical system is funded primarily from general tax revenues, while Australia funds its public medical system primarily from a levy on employees imposed through the personal income tax system. However, in most European countries, medical care is funded primarily through statutory levies on the employer. (The former two tax costs are not captured in this analysis, as they do not directly burden the employer, while the latter cost is incorporated in this analysis.)

Compared to manufacturing, corporate & IT services operations exhibit a much lower impact of other taxes. Since operations are assumed to be renting office space, property taxes levied on landlords and passed on through rent are not captured in this comparison. Taxes levied directly on business occupants, generally in addition to taxes on landlords, are captured in this analysis. Taxes on equipment and capital are much less significant than for manufacturing, as lower levels of both are employed. Non-refundable sales taxes continue to be a significant part of the other tax costs in the United States—the only jurisdiction in which these taxes still apply after June 2010.[1]

Total Tax Index by Type of Tax, and Effective Corporate Income Tax Rates – Corporate & IT Services



1 Non-refundable sales taxes cease to apply in two Canadian provinces—Ontario and British Columbia—on July 1, 2010, but continue to apply in three Canadian provinces after that date. However, from July 1, 2010, non-refundable sales taxes will not apply in any of the three major Canadian cities analyzed in this report.

6 Research & Development

Results by country

The TTI rankings of countries for R&D operations vary significantly from the previous sectors examined and the overall results. These changes are primarily due to the impact of tax incentives targeted to foster R&D activity.

Australia, **Canada**, the **United Kingdom**, and the **Netherlands** all have particularly low TTI ratings, at less than 51, reflecting significant and potentially refundable R&D incentives in those countries.

Even at the other end of the spectrum, **France** also offers significant R&D tax credits, which are sufficient to cut France's TTI rating from 238.5 for corporate & IT services, to 115.6 for R&D. Thus, even in high-tax locations, R&D incentives can still make a significant impact in reducing total tax costs.

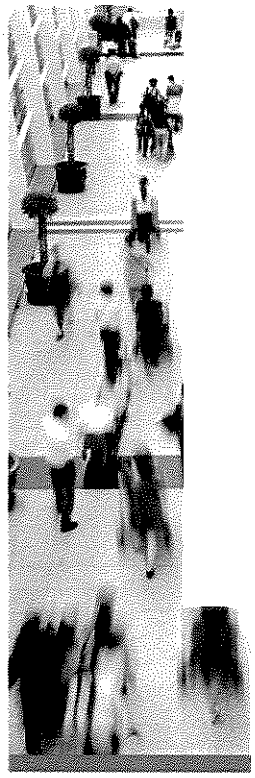
Comparing the TTI rankings of countries in 2010 to 2008, the most dramatic change is for **Australia**, moving up from fifth place in 2008, to first in 2010. This change is a result of Australia adopting a new R&D tax credit system as of July 1st, 2010, that is refundable for corporations that meet defined revenue limits. The **United States** also improves its ranking in 2010—from 7th to 6th—due to the inclusion of its "on again, off again" federal R&D tax credit in the analysis for 2010 (as discussed further on the following page). The other changes in ranking since 2008 are largely incidental to these changes and the enhancement of the analysis from two different types of R&D operations in 2008 to three in 2010. The **Netherlands** slips in the rankings, from 1st to 4th, primarily due to improvements in TTI's for Australia and Canada, both of which move ahead of the Netherlands.

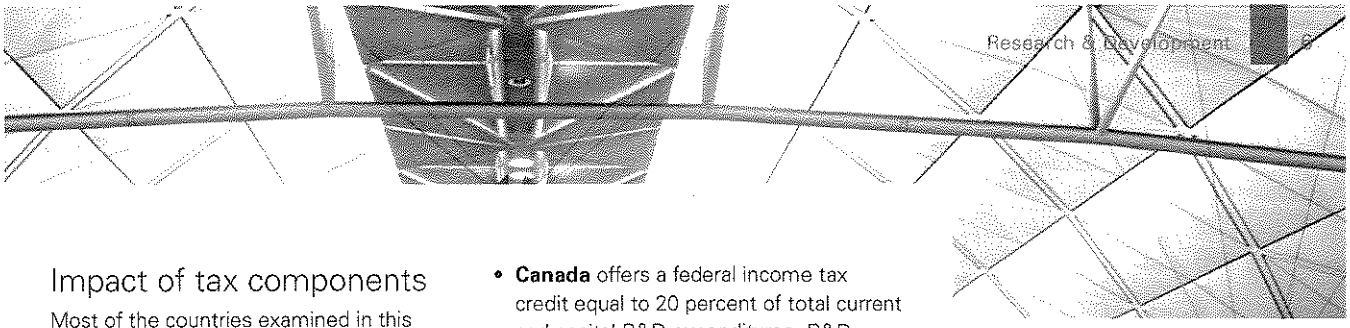
Rank	Country	Total Tax Index	2008 Rank
1	Australia	12.1	5
2	Canada	29.3	2
3	United Kingdom	36.5	3
4	Netherlands	50.7	1
5	Mexico	71.5	4
6	United States	100.0	7
7	France	115.6	9
8	Japan	130.6	6
9	Germany	154.3	8
10	Italy	209.1	10

Results for major cities

The results for the major international cities are generally consistent with the national results for R&D, but they differ dramatically from other sectors. The top six cities for R&D are in Australia—**Melbourne** and **Sydney**; Canada—**Montreal** and **Vancouver**; and the United Kingdom—**Manchester** and **London**. Meanwhile, completely consistent with their national rankings, the French, Japanese, German, and Italian cities round at the bottom of the list of 41 international cities for the R&D sector.

Rank	41 Large International Cities	Total Tax Index
1	Melbourne, AU	10.2
2	Montreal, CA	13.1
3	Sydney, AU	14.1
4	Vancouver, CA	24.9
5	Manchester, UK	34.7
6	London, UK	38.4
7	Toronto, CA	45.3
8	The Hague, NL	50.2
9	Amsterdam, NL	51.3
10	Mexico City, MX	70.9
11	Monterrey, MX	72.0
12	Phoenix, US	84.1
13	Minneapolis, US	85.4
14	Detroit, US	87.1
15	Portland, US	89.2
16	Boston, US	89.2
17	Tampa, US	90.9
18	Baltimore, US	91.7
19	Miami, US	92.3
20	Atlanta, US	93.8
21	New York City, US	95.4
22	Philadelphia, US	96.1
23	Chicago, US	96.2
24	Denver, US	97.7
25	North Virginia (Metro DC), US	99.3
26	Riverside-San Bernardino, US	99.3
27	San Diego, US	100.2
28	Seattle, US	100.7
29	St. Louis, US	102.7
30	Los Angeles, US	103.5
31	Dallas-Fort Worth, US	104.9
32	Houston, US	105.0
33	San Francisco, US	105.6
34	Lyon, FR	108.9
35	Paris, FR	122.4
36	Osaka, JP	130.1
37	Tokyo, JP	131.0
38	Berlin, GE	150.1
39	Frankfurt, GE	158.6
40	Milan, IT	199.0
41	Rome, IT	219.3





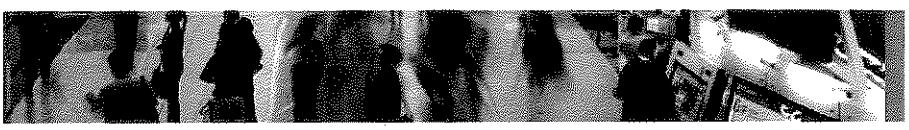
Impact of tax components

Most of the countries examined in this study, and some states and provinces within those countries, offer tax incentives to promote R&D activities.

The objective of governments in offering such incentives is to foster the growth of R&D and innovation in their respective jurisdictions. As more countries compete for R&D dollars, there has almost become an escalating battle of R&D tax incentives. Many of the jurisdictions examined in this study have increased or enhanced their R&D tax incentives in recent years.

The nature and form of these tax incentives differ from country to country. Below is a quick summary of the R&D tax incentives in each of the countries studied in this report. The R&D incentives detailed here and considered in this study apply to foreign-owned companies undertaking in-house R&D. In some countries, even more favorable treatment may be available to small domestic corporations and/or for R&D contracted to research institutes or universities.

- **Australia** currently allows R&D expenditures to be deducted at 125 percent of the actual amount of the expense, or 175 percent for incremental expenditures. However, from July 1, 2010, this deduction-based system is to be replaced with a system of R&D tax credits—45 percent refundable credits for companies with group turnover less than AUD $20 million, and 40 percent non-refundable credits for large corporations. For many R&D operations, such as spin-offs from larger firms or university research projects, the potentially refundable nature of these tax credits will represent a powerful incentive to structure within the defined revenue limits.
- **Canada** offers a federal income tax credit equal to 20 percent of total current and capital R&D expenditures. R&D equipment is also subject to 100 percent depreciation write-off. Most Canadian provinces also offer provincial R&D tax incentives at rates that vary from 10 to 20 percent; some of these tax credits are refundable.
- **France** offers an income tax credit equal to 30 percent of the first €100 million of R&D expenditures in a year and 5 percent on excess expenditures. The credit rate is increased to 50 percent for new businesses in their first year of R&D, and 40 percent in their second year of R&D. Credits can be carried forward and refunded if not used after 3 years.
- **Italy** provided a tax credit equal to 10 percent of R&D expenditures, up to €15 million in actual expenditures per year, in 2008 and 2009. This credit has not been included in the study calculations for 2010 and later years because, at the time of research for this study, it was unknown whether the Italian government intends to extend this incentive for later years. The Italian regional income tax system also permits full deduction of salaries for R&D personnel (as compared to only €4,600 per employee for non-R&D personnel).
- **Japan** offers an income tax credit of between 8 and 12 percent of total R&D expenditures, with the actual rate being determined based on the ratio of R&D spending to sales. However, the total income tax credit is restricted to 20 percent of the corporate income tax liability for the year. For fiscal years starting between April 1, 2008, and March 31, 2010, additional R&D credits were also made available to stimulate further short-term R&D activity. These credits were included in this analysis for the 2010 fiscal year.
- **Mexico** offers an income tax credit program that may provide credits for as much as 30 percent of R&D expenditures. However, this program is discretionary, with evaluation and approval required from the National Science and Technology Council. Given the uncertainty regarding the approval process and final credit rate determination, this incentive was not included in the calculations for this study.
- **The Netherlands** offers an extremely innovative R&D incentive that allows the employer to retain a portion of the employee wage taxes deducted from the pay of R&D employees. These amounts are retained by the employer rather than remitted to the taxation authorities, but the employee is still credited with having paid the full amount of personal wage (income) tax. This incentive equals 50 percent of the first €220,000 of total R&D payroll (64 percent for start-ups) and 18 percent of the remaining R&D payroll. The incentive is capped at €14 million per taxpayer per year. Though the benefit to the employer R&D firm under this program is itself taxable, the benefit can exceed corporate income tax paid by the company in a year, significantly reducing the company's effective income tax rate.
- **The United Kingdom** offers an R&D incentive system that combines additional tax deductions with potentially refundable credits. R&D expenses are eligible for a deduction equal to 130 percent of the actual expenditures, or 175 percent for small and medium sized-enterprises (SMEs), which can have up to 500 employees, subject to other financial criteria. SMEs that cannot utilize the additional deductions (due to being in a loss situation) may be able to surrender the losses in exchange for a cash payment equal to 14 percent of



the allowed deduction (equivalent to 175 percent x 14 percent = 24.5 percent of the actual R&D expenditures).

- **The United States'** federal R&D tax credit program is currently in limbo, as Congress has failed to extend this program prior to its December 31, 2009, sunset date. This situation has occurred numerous times in this program's history and, each time, the program has been reactivated (generally retroactively) at a later date. This creates great uncertainty for US R&D firms. Despite this situation, the federal R&D tax credit program was included in this study, as prior to December 31, 2009, bi-partisan bills to extend the R&D tax credit had been introduced in both the US House of Representatives and the Senate, and President Obama had also pledged to extend the credit. Therefore, consistent with past history, the wheels appear to be in motion to retroactively extend the US federal R&D credit once again.

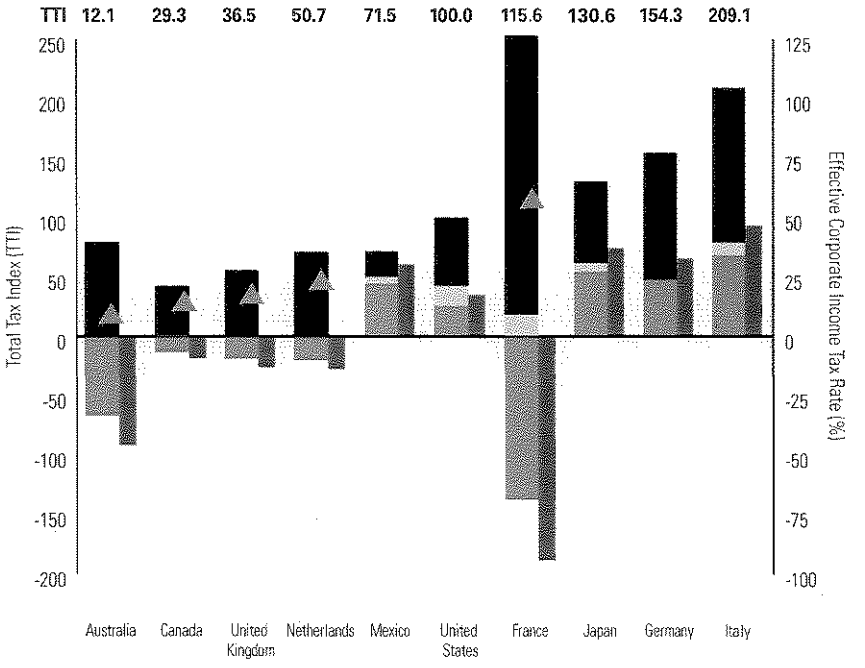
  In addition to the federal program, many states offer R&D tax credit programs, which have been included in this analysis. Most state programs follow the federal definitions and calculation formulae, which primarily provide tax relief only for incremental R&D expenditures; however, some states take custom approaches to their R&D incentive programs.

In comparing these tax incentive programs, two key features to watch for are as follows:

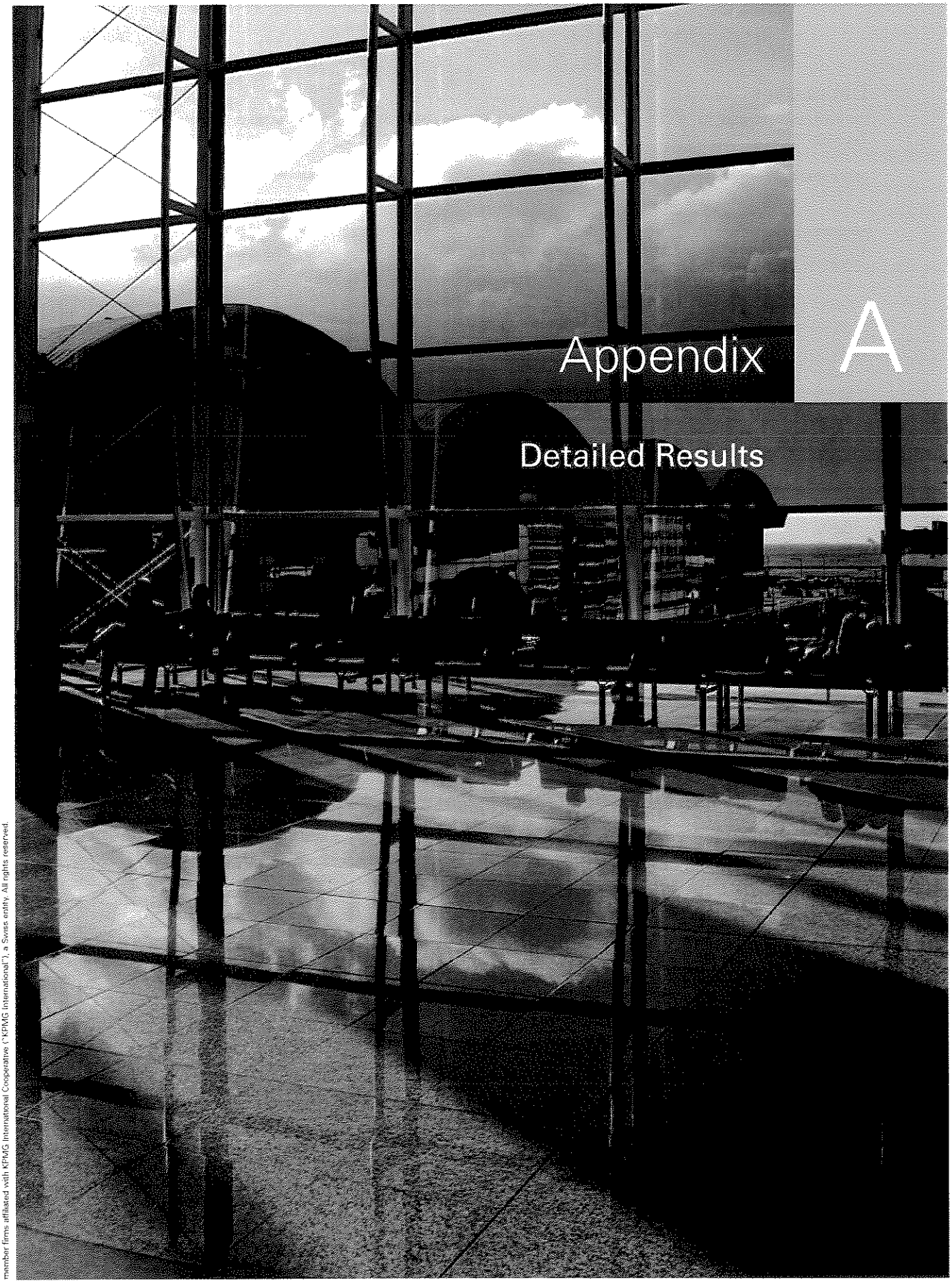
- Whether incentives apply to all R&D expenditures incurred or only to incremental expenditures above some base average level of R&D spending. Obviously, the former approach is preferable, providing incentive value on every dollar of eligible R&D spending.
- Whether the credits are refundable (or transferable or saleable). Often R&D operations suffer losses during the early stages of their R&D projects, producing net tax losses and no income tax payable. If credits can only offset income taxes, this does not provide any short-term cash flow assistance to help sustain the R&D project and slow its cash-burn rate, even if they can be carried forward to future (hopefully profitable) years. However, where credits are refundable, where they can be transferred to offset other tax liabilities (such as sales, capital, or property tax), or where they can be sold to another entity, then the incentive program can provide immediate cash benefits to the R&D firm by slowing the cash-burn rate of early stage firms.

The following graph illustrates the wide variation in taxes, and especially income taxes (net of incentives), among the countries for R&D operations. Five countries—Australia, Canada, the United Kingdom, the Netherlands, and France—have R&D tax incentives that effectively produce negative income taxes, as refundable tax incentives are greater than corporate income taxes otherwise payable.

Total Tax Index, by Type of Tax and Effective Corporate Income Tax Rates – R&D[1]



1 Due to marginal net income before tax for R&D operations, refundable R&D tax credits or other incentives can result in a high negative effective corporate income tax rate



Appendix A

Detailed Results

Detailed results by country

Detailed tables of rates. CIT = Corporate Income Tax, OCT = Other Corporate Taxes, SLC = Statutory Labor Costs, TETR = Total Effective Tax Rate, TTI = Total Tax Index

Country	Effective Tax Rates				Ranks				TTI
	CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
OVERALL									
Australia	17.2%	3.7%	27.9%	48.8%	3	4	7	4	80.8
Canada	12.2%	8.1%	18.3%	38.6%	1	6	2	2	63.9
France	15.4%	13.3%	80.8%	109.5%	2	8	10	10	181.4
Germany	29.8%	4.7%	40.3%	74.9%	8	5	8	7	124.1
Italy	33.4%	1.9%	42.9%	78.2%	9	2	9	8	129.6
Japan	36.3%	21.5%	25.5%	83.3%	10	10	5	9	138.0
Mexico	28.0%	2.0%	6.1%	36.2%	6	3	1	1	59.9
Netherlands	18.3%	1.1%	26.7%	46.1%	4	1	6	3	76.4
United Kingdom	20.2%	14.2%	18.7%	53.1%	5	9	3	5	88.0
United States	28.3%	12.5%	19.5%	60.4%	7	7	4	6	100.0
MANUFACTURING									
Australia	19.9%	5.0%	22.5%	47.3%	3	4	6	4	80.9
Canada	12.2%	10.7%	16.6%	39.5%	1	6	4	2	67.7
France	21.5%	14.6%	64.8%	100.9%	5	7	10	10	172.7
Germany	29.2%	6.4%	34.3%	69.9%	9	5	9	8	119.7
Italy	28.7%	1.4%	33.1%	63.2%	8	2	8	7	108.2
Japan	34.8%	27.8%	21.2%	83.9%	10	10	5	9	143.5
Mexico	27.7%	1.6%	4.6%	33.8%	7	3	1	1	57.9
Netherlands	19.6%	1.3%	22.9%	43.8%	2	1	7	3	74.9
United Kingdom	21.4%	19.2%	14.8%	55.5%	4	9	2	5	94.9
United States	26.9%	14.9%	16.6%	58.4%	6	8	3	6	100.0
CORPORATE AND IT SERVICES									
Australia	30.7%	0.0%	39.2%	69.9%	5	1	7	6	107.8
Canada	20.3%	0.5%	21.1%	41.9%	1	5	2	2	64.5
France	33.0%	8.5%	113.2%	154.7%	7	10	10	10	238.5
Germany	31.1%	0.0%	51.7%	82.8%	6	1	8	8	127.7
Italy	46.8%	1.9%	64.1%	112.8%	10	6	9	9	173.9
Japan	41.9%	2.6%	34.1%	78.6%	9	7	6	7	121.2
Mexico	28.4%	2.8%	9.2%	40.4%	4	8	1	1	62.3
Netherlands	25.4%	0.2%	33.9%	59.6%	2	4	5	4	91.8
United Kingdom	28.0%	0.0%	26.6%	54.6%	3	1	4	3	84.2
United States	37.9%	3.4%	23.6%	64.9%	8	9	3	5	100.0
R&D									
Australia	-46.0%	0.0%	54.3%	8.3%	2	1	7	1	12.1
Canada	-9.2%	0.5%	28.6%	20.0%	5	4	2	2	29.3
France	-94.2%	12.7%	160.7%	79.1%	1	10	10	7	115.6
Germany	32.8%	0.0%	72.9%	105.6%	8	1	8	9	154.3
Italy	46.6%	7.5%	89.0%	143.1%	10	8	9	10	209.1
Japan	37.2%	5.1%	47.0%	89.4%	9	7	5	8	130.6
Mexico	30.3%	4.2%	14.4%	48.9%	7	6	1	5	71.5
Netherlands	-13.9%	0.9%	47.7%	34.7%	3	5	6	4	50.7
United Kingdom	-13.0%	0.0%	38.0%	25.0%	4	1	3	3	36.5
United States	17.5%	11.9%	39.1%	68.4%	6	9	4	6	100.0

Detailed results by city – Overall

The following table details the overall results for all 95 cities. With each country, cities are sorted in order of ascending TTI. Rankings are relative to other cities within the same country.

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
		OVERALL								
Australia	Brisbane	17.6%	3.1%	26.5%	47.2%	4	1	2	1	78.1
	Melbourne	17.3%	3.5%	26.8%	47.6%	2	2	3	2	78.9
	Adelaide	17.6%	4.9%	25.7%	48.2%	3	4	1	3	79.9
	Sydney	17.2%	3.8%	29.0%	49.9%	1	3	4	4	82.8
Canada	Moncton, NB	6.2%	7.9%	12.4%	26.4%	4	10	7	1	43.8
	Sherbrooke, QC	4.1%	3.0%	19.5%	26.6%	1	2	13	2	44.1
	Fredericton, NB	6.1%	8.2%	12.4%	26.7%	3	11	8	3	44.3
	Edmonton, AB	13.8%	2.3%	11.6%	27.7%	9	1	3	4	46.0
	St. John's, NL	5.9%	5.8%	16.2%	27.8%	2	4	12	5	46.1
	Saskatoon, SK	9.3%	8.3%	11.6%	29.2%	7	12	4	6	48.3
	Vancouver, BC	15.0%	3.9%	11.5%	30.5%	11	3	2	7	50.5
	Quebec City, QC	6.2%	6.6%	19.7%	32.6%	5	6	14	8	54.0
	Prince George, BC	15.1%	6.1%	11.4%	32.6%	12	5	1	9	54.0
	Halifax, NS	14.2%	7.1%	12.0%	33.3%	10	8	5	10	55.2
	Charlottetown, PE	16.2%	6.8%	12.2%	35.1%	13	7	6	11	58.2
	Montreal, QC	8.0%	7.7%	20.7%	36.4%	6	9	15	12	60.3
	Winnipeg, MB	12.5%	12.3%	15.4%	40.2%	8	15	9	13	66.5
	Toronto, ON	16.4%	8.4%	15.9%	40.8%	14	13	11	14	67.6
	St. Catharines-Niagara, ON	16.5%	10.6%	15.6%	42.7%	15	14	10	15	70.8
France	Lyon	16.1%	13.0%	77.0%	106.1%	2	1	1	1	175.8
	Paris	14.7%	13.6%	84.6%	112.9%	1	2	2	2	187.0
Germany	Berlin	28.9%	5.3%	39.4%	73.5%	1	2	1	1	121.8
	Frankfurt	30.8%	4.2%	41.3%	76.3%	2	1	2	2	126.4
Italy	Milan	31.7%	1.7%	42.3%	75.7%	1	1	1	1	125.5
	Rome	35.1%	2.2%	43.6%	80.8%	2	2	2	2	133.8
Japan	Osaka	36.3%	17.0%	25.4%	78.7%	1	1	1	1	130.3
	Tokyo	36.4%	25.9%	25.6%	87.8%	2	2	2	2	145.5
Mexico	Monterrey	28.0%	2.0%	6.1%	36.1%	1	1	1	1	59.8
	Mexico City	28.1%	2.0%	6.1%	36.2%	2	2	2	2	60.0
Netherlands	The Hague	18.3%	0.9%	26.7%	45.9%	2	2	1	1	76.1
	Utrecht	18.3%	1.0%	26.7%	46.0%	2	3	1	2	76.3
	Brabant Stad	18.3%	0.9%	27.0%	46.1%	1	1	4	3	76.4
	Amsterdam	18.3%	1.3%	26.7%	46.3%	2	4	1	4	76.7
UK	Manchester	20.4%	8.7%	17.6%	46.7%	2	1	1	1	77.4
	London	20.1%	19.7%	19.7%	59.5%	1	2	2	2	98.6
US	Omaha, NE	24.8%	5.7%	17.7%	48.3%	3	12	22	1	80.0
	Youngstown, OH	26.8%	4.5%	17.3%	48.5%	21	6	15	2	80.4
	Shreveport, LA	24.6%	8.2%	16.1%	49.0%	2	23	3	3	81.1
	Baltimore, MD	26.7%	4.2%	18.5%	49.4%	19	3	33	4	81.8
	Cedar Rapids, IA	25.4%	6.6%	17.4%	49.5%	4	14	17	5	82.0
	Lexington, KY	29.3%	3.6%	17.0%	49.9%	51	1	12	6	82.7
	Bangor, ME	28.9%	4.7%	17.4%	51.1%	43	7	16	7	84.6
	Milwaukee, WI	27.9%	4.3%	19.4%	51.5%	31	4	44	8	85.4
	Buffalo, NY	27.3%	7.5%	17.3%	52.0%	24	20	14	9	86.2
	Sioux Falls, SD	26.3%	10.4%	15.3%	52.1%	12	34	1	10	86.3
	Minneapolis, MN	26.2%	5.4%	20.6%	52.2%	11	9	55	11	86.5

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
					OVERALL					
US	Saginaw, MI	26.1%	7.7%	18.5%	52.3%	7	22	32	12	86.6
	Montgomery, AL	26.5%	8.5%	17.5%	52.4%	15	25	18	13	86.9
	Wilmington, DE	29.0%	3.8%	19.8%	52.5%	45	2	47	14	87.0
	Fargo, ND	28.8%	7.6%	16.4%	52.7%	40	21	7	15	87.3
	Providence, RI	27.5%	5.5%	20.0%	53.0%	26	11	50	16	87.8
	Raleigh, NC	27.9%	7.3%	17.8%	53.0%	33	18	24	17	87.8
	Boston, MA	29.2%	5.4%	18.6%	53.1%	48	8	34	18	87.9
	Cheyenne, WY	26.4%	9.3%	17.5%	53.1%	13	27	19	19	88.0
	Little Rock, AR	28.0%	9.7%	15.8%	53.5%	34	28	2	20	88.7
	Philadelphia, PA	28.9%	5.5%	19.2%	53.6%	44	10	42	21	88.9
	Harrisburg, PA	29.1%	7.0%	18.1%	54.1%	47	16	27	22	89.6
	Detroit, MI	26.1%	9.9%	18.8%	54.7%	6	31	37	23	90.7
	Manchester, NH	31.2%	4.4%	19.4%	55.0%	58	5	45	24	91.1
	Atlanta, GA	26.1%	10.6%	18.3%	55.0%	8	36	29	25	91.1
	Hartford, CT	27.4%	7.3%	20.4%	55.1%	25	19	52	26	91.3
	Salt Lake City, UT	27.8%	10.6%	16.9%	55.2%	28	37	11	27	91.5
	Spokane, WA	26.2%	10.3%	18.9%	55.3%	10	32	38	28	91.6
	Tampa, FL	28.2%	10.4%	16.7%	55.3%	38	33	10	28	91.6
	Seattle, WA	26.0%	9.7%	19.9%	55.6%	5	29	49	30	92.1
	Phoenix, AZ	26.4%	12.6%	16.6%	55.6%	14	42	8	31	92.1
	Nashville, TN	28.2%	9.7%	18.0%	55.9%	35	30	26	32	92.6
	Chicago, IL	29.0%	6.6%	20.3%	56.0%	46	13	51	33	92.8
	McAllen, TX	26.8%	13.5%	16.2%	56.5%	22	47	4	34	93.7
	Trenton, NJ	28.2%	7.2%	21.2%	56.7%	39	17	58	35	94.0
	Boise, ID	28.8%	8.6%	19.5%	56.9%	41	26	46	36	94.2
	Denver, CO	27.8%	10.9%	18.2%	56.9%	29	39	28	37	94.3
	Billings, MT	29.4%	7.0%	20.6%	57.0%	52	15	57	38	94.4
	Burlington, VT	27.6%	10.6%	18.9%	57.0%	27	35	39	39	94.5
	Oklahoma City, OK	27.9%	10.8%	18.4%	57.1%	32	38	31	40	94.6
	Miami, FL	28.2%	12.6%	17.2%	58.0%	36	43	13	41	96.1
	Indianapolis, IN	30.1%	12.4%	16.3%	58.8%	53	41	6	42	97.5
	Greenville-Spartanburg, SC	26.6%	14.7%	17.8%	59.0%	16	51	25	43	97.8
	Dallas-Fort Worth, TX	26.7%	13.9%	18.6%	59.1%	18	49	36	44	98.0
	Houston, TX	26.6%	13.6%	19.0%	59.2%	17	48	41	45	98.1
	Honolulu, HI	23.4%	12.9%	23.2%	59.5%	1	45	60	46	98.7
	Charleston, WV	26.7%	16.8%	16.3%	59.8%	20	59	5	47	99.2
	Jackson, MS	27.8%	16.0%	16.6%	60.4%	30	56	9	48	100.1
	Portland, OR	31.6%	8.4%	20.5%	60.7%	60	24	53	49	100.6
	New York City, NY	27.1%	14.5%	19.9%	61.5%	23	50	48	50	101.9
	Wichita, KS	29.2%	14.7%	17.8%	61.8%	50	52	23	51	102.4
	North Virginia (Metro DC), VA	28.2%	16.3%	17.6%	62.0%	37	58	21	52	102.8
	San Diego, CA	30.6%	12.9%	18.6%	62.0%	56	44	35	53	102.8
	Riverside-San Bernardino, CA	30.6%	13.1%	18.4%	62.1%	57	46	30	54	102.9
	Las Vegas, NV	26.1%	15.4%	20.6%	62.1%	9	55	56	55	102.9
	St. Louis, MO	29.2%	16.1%	19.0%	64.3%	49	57	40	56	106.5
	Anchorage, AK	31.2%	11.2%	22.3%	64.6%	58	40	59	57	107.1
	Los Angeles, CA	30.5%	15.0%	19.3%	64.8%	55	53	43	58	107.3
	Albuquerque, NM	28.8%	18.4%	17.6%	64.8%	42	60	20	59	107.3
	San Francisco, CA	30.3%	15.2%	20.6%	66.1%	54	54	54	60	109.5

Detailed results by city – Manufacturing

The following table details the overall results for all 95 cities. With each country, cities are sorted in order of ascending TTI. Rankings are relative to other cities within the same country.

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
		MANUFACTURING								
Australia	Brisbane	20.1%	4.2%	21.4%	45.7%	4	1	2	1	78.2
	Melbourne	19.9%	4.8%	21.7%	46.3%	1	2	3	2	79.2
	Adelaide	20.1%	6.7%	20.8%	47.5%	3	4	1	3	81.3
	Sydney	19.9%	5.1%	23.3%	48.3%	1	3	4	4	82.7
Canada	St. John's, NL	4.1%	7.8%	14.8%	26.8%	1	5	12	1	45.8
	Edmonton, AB	14.0%	3.1%	10.9%	28.0%	12	1	3	2	48.0
	Moncton, NB	6.8%	10.6%	11.8%	29.2%	3	11	7	3	50.0
	Fredericton, NB	6.8%	11.0%	11.9%	29.6%	2	12	8	4	50.7
	Vancouver, BC	13.9%	5.1%	10.8%	29.9%	10	3	2	5	51.1
	Charlottetown, PE	12.3%	6.7%	11.4%	30.4%	9	4	6	6	52.0
	Saskatoon, SK	9.7%	10.0%	10.9%	30.6%	6	9	4	7	52.4
	Sherbrooke, QC	9.7%	3.9%	17.6%	31.2%	7	2	13	8	53.3
	Prince George, BC	14.0%	8.1%	10.7%	32.8%	11	6	1	9	56.1
	Halifax, NS	14.6%	9.6%	11.2%	35.4%	13	8	5	10	60.6
	Quebec City, QC	9.7%	8.8%	17.8%	36.2%	5	7	14	11	62.0
	Winnipeg, MB	10.0%	14.2%	13.9%	38.0%	8	15	9	12	65.1
	Montreal, QC	9.3%	10.3%	18.6%	38.2%	4	10	15	13	65.5
	Toronto, ON	15.1%	11.2%	14.6%	40.8%	14	13	11	14	69.9
	St. Catharines-Niagara, ON	15.2%	14.0%	14.3%	43.6%	15	14	10	15	74.6
France	Lyon	21.8%	14.5%	62.2%	98.5%	2	1	1	1	168.6
	Paris	21.2%	14.6%	67.5%	103.3%	1	2	2	2	176.8
Germany	Berlin	28.3%	7.1%	33.5%	68.9%	1	2	1	1	117.9
	Frankfurt	30.2%	5.7%	35.1%	71.0%	2	1	2	2	121.5
Italy	Milan	27.4%	1.4%	32.8%	61.6%	1	2	1	1	105.4
	Rome	30.0%	1.4%	33.4%	64.8%	2	1	2	2	111.0
Japan	Osaka	34.8%	21.8%	21.1%	77.7%	1	1	1	1	133.1
	Tokyo	34.9%	33.9%	21.3%	90.0%	2	2	2	2	154.0
Mexico	Monterrey	27.6%	1.6%	4.5%	33.7%	1	2	1	1	57.7
	Mexico City	27.8%	1.6%	4.6%	34.0%	2	1	2	2	58.1
Netherlands	The Hague	19.6%	1.1%	22.9%	43.6%	2	2	1	1	74.6
	Utrecht	19.6%	1.3%	22.9%	43.7%	2	3	1	2	74.8
	Brabant Stad	19.6%	1.0%	23.1%	43.7%	1	1	4	3	74.8
	Amsterdam	19.6%	1.5%	22.9%	43.9%	2	4	1	4	75.2
UK	Manchester	21.5%	11.8%	14.1%	47.4%	2	1	1	1	81.1
	London	21.3%	26.7%	15.5%	63.5%	1	2	2	2	108.7
US	Shreveport, LA	22.0%	8.4%	13.5%	43.9%	1	19	4	1	75.2
	Baltimore, MD	25.0%	3.7%	16.0%	44.7%	7	2	35	2	76.6
	Youngstown, OH	25.6%	4.8%	14.7%	45.2%	25	5	18	3	77.3
	Omaha, NE	24.0%	5.9%	15.3%	45.2%	3	10	25	4	77.3
	Lexington, KY	27.4%	3.7%	14.4%	45.5%	44	1	13	5	77.9
	Cedar Rapids, IA	24.6%	7.7%	14.8%	47.1%	4	14	19	6	80.7
	Bangor, ME	27.6%	5.4%	14.9%	47.8%	46	8	20	7	81.9
	Milwaukee, WI	26.8%	4.8%	16.8%	48.3%	41	4	46	8	82.7
	Buffalo, NY	25.1%	8.7%	14.6%	48.4%	14	21	14	9	82.9
	Providence, RI	25.8%	5.4%	17.2%	48.4%	26	7	49	10	82.9
	Wilmington, DE	27.2%	4.4%	16.9%	48.5%	42	3	48	11	82.9

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
		MANUFACTURING								
US	Montgomery, AL	25.2%	9.1%	14.7%	49.0%	16	24	17	12	83.8
	Boston, MA	27.8%	5.7%	15.6%	49.1%	48	9	31	13	84.0
	Raleigh, NC	26.2%	7.9%	15.1%	49.1%	29	15	22	14	84.1
	Philadelphia, PA	26.6%	6.5%	16.4%	49.5%	39	12	42	15	84.7
	Minneapolis, MN	25.2%	6.3%	18.2%	49.7%	15	11	57	16	85.0
	Saginaw, MI	25.0%	9.0%	16.0%	50.0%	9	23	36	17	85.6
	Harrisburg, PA	26.7%	8.2%	15.3%	50.2%	40	17	26	18	86.0
	Fargo, ND	27.4%	9.1%	14.0%	50.5%	45	25	10	19	86.4
	Sioux Falls, SD	25.2%	12.5%	12.8%	50.5%	18	34	1	20	86.5
	Seattle, WA	25.0%	8.6%	17.2%	50.8%	6	20	50	21	87.0
	Little Rock, AR	26.5%	11.2%	13.1%	50.8%	35	31	2	22	87.0
	Spokane, WA	25.1%	9.6%	16.4%	51.1%	10	26	40	23	87.4
	Hartford, CT	25.6%	8.0%	17.6%	51.2%	24	16	52	24	87.6
	Cheyenne, WY	25.2%	11.1%	15.1%	51.3%	19	30	23	25	87.9
	Manchester, NH	29.9%	5.1%	16.5%	51.6%	59	6	43	26	88.2
	Nashville, TN	26.4%	10.6%	15.5%	52.5%	33	28	30	27	89.8
	Trenton, NJ	26.2%	8.3%	18.2%	52.8%	30	18	58	28	90.3
	Chicago, IL	27.8%	7.4%	17.6%	52.8%	49	13	53	29	90.4
	Tampa, FL	26.6%	12.4%	13.9%	52.9%	38	33	8	30	90.6
	Detroit, MI	25.0%	11.9%	16.2%	53.1%	7	32	38	31	90.9
	Salt Lake City, UT	26.4%	12.7%	14.1%	53.2%	32	35	11	32	91.0
	Atlanta, GA	25.1%	12.7%	15.4%	53.2%	10	37	28	33	91.0
	Boise, ID	27.3%	10.1%	16.5%	53.9%	43	27	44	34	92.3
	Denver, CO	26.3%	12.7%	15.4%	54.4%	31	39	27	35	93.1
	Phoenix, AZ	25.3%	15.4%	13.8%	54.5%	20	45	6	36	93.3
	McAllen, TX	25.5%	15.8%	13.5%	54.8%	23	46	3	37	93.8
	Oklahoma City, OK	26.1%	12.7%	15.9%	54.8%	28	38	34	38	93.8
	Billings, MT	28.2%	9.0%	18.1%	55.3%	52	22	56	39	94.6
	Burlington, VT	26.1%	12.7%	16.6%	55.4%	27	36	45	40	94.8
	Miami, FL	26.5%	15.4%	14.4%	56.3%	36	43	12	41	96.4
	Dallas-Fort Worth, TX	25.3%	16.3%	15.8%	57.4%	22	49	33	42	98.2
	Houston, TX	25.3%	16.1%	16.1%	57.5%	21	47	37	43	98.3
	Indianapolis, IN	28.9%	14.9%	13.6%	57.5%	53	41	5	44	98.4
	Greenville-Spartanburg, SC	25.1%	17.7%	15.0%	57.9%	13	52	21	45	99.1
	Charleston, WV	25.2%	19.1%	13.8%	58.1%	17	57	7	46	99.5
	Portland, OR	30.8%	10.8%	17.7%	59.2%	60	29	54	47	101.4
	Jackson, MS	26.5%	19.0%	13.9%	59.4%	34	56	9	48	101.7
	Honolulu, HI	23.4%	16.2%	19.9%	59.5%	2	48	60	49	101.9
	New York City, NY	25.0%	18.2%	16.8%	60.0%	5	55	46	50	102.6
	San Diego, CA	29.6%	15.0%	15.7%	60.3%	56	42	32	51	103.2
	Las Vegas, NV	25.1%	17.5%	17.8%	60.4%	10	50	55	52	103.4
	North Virginia (Metro DC), VA	26.6%	19.2%	14.7%	60.5%	37	58	16	53	103.5
	Riverside-San Bernardino, CA	29.7%	15.4%	15.5%	60.6%	57	44	29	54	103.6
	Wichita, KS	27.9%	17.8%	15.2%	61.0%	51	53	24	55	104.4
	Los Angeles, CA	29.6%	17.7%	16.3%	63.5%	55	51	39	56	108.7
	St. Louis, MO	27.9%	19.5%	16.4%	63.8%	50	59	41	57	109.2
	Anchorage, AK	29.8%	14.7%	19.3%	63.8%	58	40	59	58	109.2
	San Francisco, CA	29.4%	18.0%	17.4%	64.9%	54	54	51	59	111.0
	Albuquerque, NM	27.7%	22.6%	14.7%	65.0%	47	60	15	60	111.2

Detailed results by city – Corporate & IT services

The following table details the overall results for all 95 cities. With each country, cities are sorted in order of ascending TTI. Rankings are relative to other cities within the same country.

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
CORPORATE & IT SERVICES										
Australia	Adelaide	30.7%	0.0%	35.9%	66.6%	1	1	1	1	102.6
	Brisbane	30.7%	0.0%	37.0%	67.7%	1	1	2	2	104.4
	Melbourne	30.7%	0.0%	37.5%	68.2%	1	1	3	3	105.2
	Sydney	30.7%	0.0%	40.9%	71.6%	1	1	4	4	110.4
Canada	Sherbrooke, QC	-8.2%	0.3%	22.8%	14.9%	1	6	13	1	23.0
	Quebec City, QC	3.4%	0.3%	23.0%	26.7%	2	6	14	2	41.1
	Moncton, NB	23.6%	0.0%	12.2%	35.8%	4	1	3	3	55.2
	Fredericton, NB	23.6%	0.0%	12.3%	35.8%	4	1	5	4	55.3
	Edmonton, AB	25.1%	0.0%	12.5%	37.6%	6	1	7	5	57.9
	Prince George, BC	25.1%	0.5%	12.2%	37.8%	7	9	2	6	58.3
	Vancouver, BC	25.1%	0.5%	12.3%	37.9%	7	9	4	7	58.4
	Montreal, QC	15.1%	0.3%	23.9%	39.3%	3	6	15	8	60.6
	Saskatoon, SK	27.0%	1.6%	12.4%	41.0%	11	13	6	9	63.2
	Halifax, NS	31.0%	0.0%	13.1%	44.0%	14	1	8	10	67.9
	St. Catharines-Niagara, ON	25.5%	0.7%	17.9%	44.1%	9	11	10	11	67.9
	Toronto, ON	25.5%	0.7%	18.2%	44.4%	9	12	11	12	68.4
	Charlottetown, PE	31.0%	3.9%	12.0%	46.8%	14	15	1	13	72.2
	St. John's, NL	29.0%	0.0%	18.6%	47.6%	13	1	12	14	73.3
	Winnipeg, MB	27.0%	3.3%	17.8%	48.1%	11	14	9	15	74.2
France	Lyon	33.0%	8.0%	107.0%	147.9%	1	1	1	1	228.1
	Paris	33.0%	9.1%	119.4%	161.5%	1	2	2	2	249.0
Germany	Berlin	30.2%	0.0%	50.6%	80.7%	1	1	1	1	124.4
	Frankfurt	32.0%	0.0%	52.9%	84.9%	2	1	2	2	130.9
Italy	Milan	44.3%	1.4%	62.8%	108.4%	1	1	1	1	167.2
	Rome	49.3%	2.4%	65.4%	117.1%	2	2	2	2	180.6
Japan	Osaka	41.8%	2.6%	33.9%	78.3%	1	2	1	1	120.7
	Tokyo	42.0%	2.5%	34.3%	78.8%	2	1	2	2	121.6
Mexico	Monterrey	28.4%	2.7%	9.2%	40.4%	1	1	2	1	62.2
	Mexico City	28.4%	2.9%	9.2%	40.5%	2	2	1	2	62.4
Netherlands	The Hague	25.4%	0.1%	33.9%	59.5%	1	1	1	1	91.7
	Utrecht	25.4%	0.2%	33.9%	59.5%	1	2	1	2	91.7
	Amsterdam	25.4%	0.3%	33.9%	59.6%	1	4	1	3	91.9
	Brabant Stad	25.4%	0.2%	34.2%	59.8%	1	2	4	4	92.1
UK	Manchester	28.0%	0.0%	24.7%	52.7%	1	1	1	1	81.2
	London	28.0%	0.0%	28.5%	56.5%	1	1	2	2	87.1
US	Sioux Falls, SD	33.8%	2.0%	19.5%	55.3%	2	12	1	1	85.2
	Cedar Rapids, IA	33.8%	1.9%	21.3%	57.0%	2	11	18	2	87.8
	Cheyenne, WY	33.8%	2.4%	21.1%	57.3%	2	17	10	3	88.3
	Omaha, NE	32.5%	3.6%	21.2%	57.3%	1	41	14	4	88.3
	Youngstown, OH	34.4%	2.0%	21.0%	57.4%	12	12	9	5	88.5
	Saginaw, MI	33.8%	3.0%	21.8%	58.6%	2	25	24	6	90.3
	Atlanta, GA	33.8%	2.8%	22.1%	58.6%	2	21	28	7	90.4
	McAllen, TX	34.7%	4.2%	19.8%	58.7%	15	51	3	8	90.5
	Phoenix, AZ	34.7%	3.2%	21.2%	59.1%	13	30	17	9	91.1
	Detroit, MI	33.8%	3.2%	22.4%	59.4%	2	28	33	10	91.5
	Minneapolis, MN	34.2%	2.1%	23.7%	60.0%	11	14	46	11	92.5

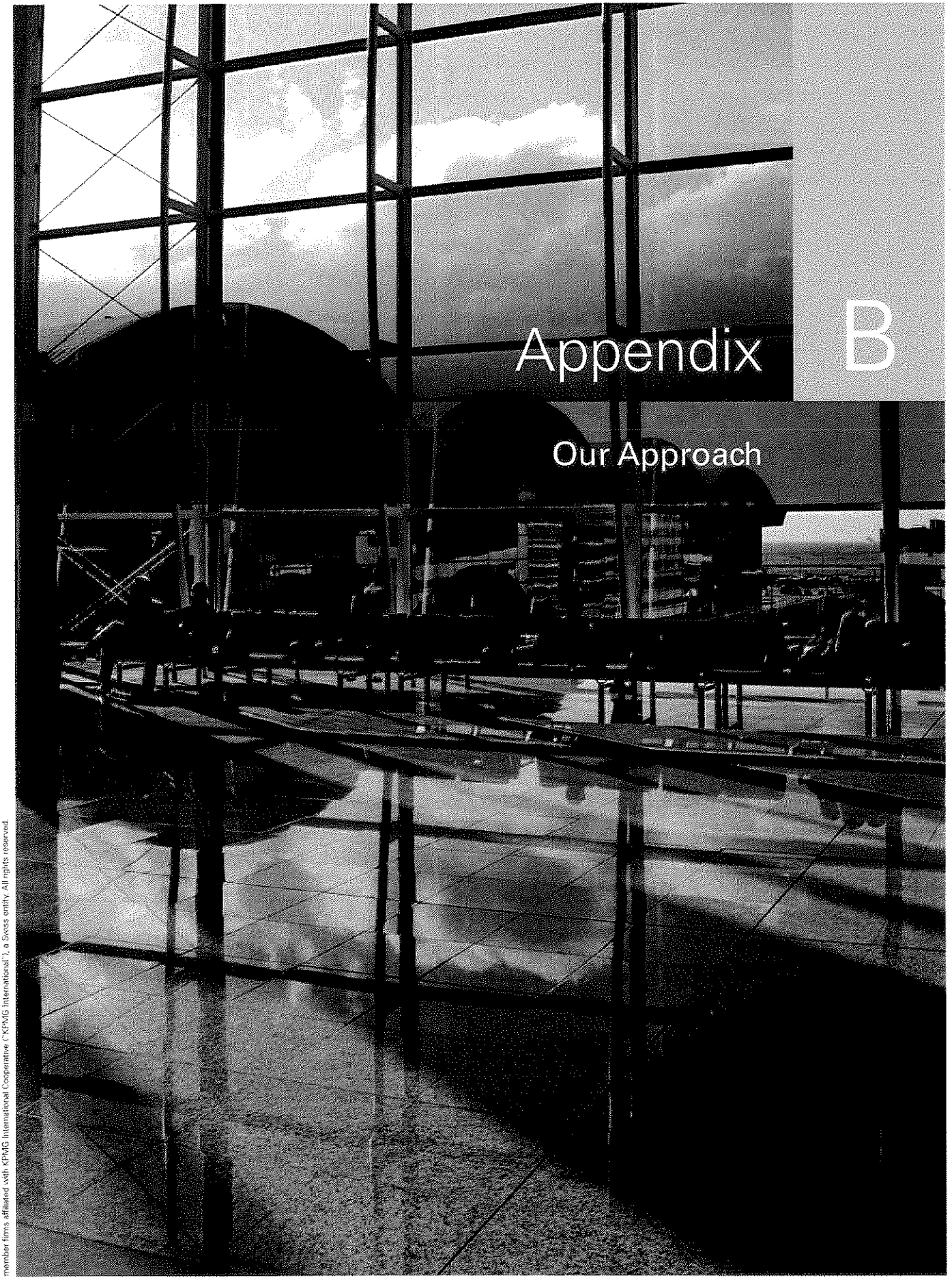
Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
		CORPORATE & IT SERVICES								
US	Montgomery, AL	34.7%	3.9%	21.6%	60.1%	14	46	22	12	92.6
	Fargo, ND	38.0%	1.8%	20.4%	60.2%	36	9	5	13	92.9
	Milwaukee, WI	36.3%	1.6%	22.7%	60.6%	22	4	36	14	93.4
	Little Rock, AR	37.1%	3.1%	20.5%	60.8%	26	26	6	15	93.7
	Bangor, ME	38.1%	1.7%	21.1%	61.0%	41	5	11	16	94.0
	Dallas-Fort Worth, TX	34.7%	4.3%	22.2%	61.2%	16	52	29	17	94.4
	Salt Lake City, UT	37.0%	2.8%	21.6%	61.4%	25	21	23	18	94.6
	Houston, TX	34.7%	4.1%	22.6%	61.5%	16	49	35	19	94.7
	Greenville-Spartanburg, SC	35.5%	3.9%	22.0%	61.5%	18	47	27	20	94.8
	Oklahoma City, OK	37.5%	3.2%	21.0%	61.6%	32	27	7	21	95.0
	Burlington, VT	36.9%	3.3%	21.5%	61.7%	24	33	21	22	95.1
	Jackson, MS	35.7%	4.8%	21.2%	61.7%	19	54	12	22	95.1
	Tampa, FL	37.3%	3.3%	21.2%	61.9%	29	32	15	24	95.4
	Billings, MT	38.1%	0.9%	23.1%	62.1%	42	1	40	25	95.8
	Lexington, KY	39.4%	1.8%	21.0%	62.2%	51	6	7	26	95.9
	Baltimore, MD	36.3%	4.0%	22.2%	62.5%	21	48	29	27	96.3
	Miami, FL	37.3%	3.5%	21.9%	62.6%	29	39	25	28	96.6
	Shreveport, LA	37.4%	5.6%	19.7%	62.7%	31	55	2	29	96.6
	Buffalo, NY	38.4%	2.9%	21.5%	62.7%	44	24	19	30	96.7
	Wichita, KS	37.7%	3.8%	21.2%	62.8%	35	44	15	31	96.7
	Denver, CO	36.8%	3.5%	22.8%	63.0%	23	38	38	32	97.2
	Nashville, TN	37.5%	4.5%	21.5%	63.5%	33	53	20	33	97.9
	Raleigh, NC	38.1%	3.4%	22.3%	63.8%	39	35	32	34	98.3
	Charleston, WV	36.2%	7.5%	20.1%	63.8%	20	58	4	35	98.3
	Albuquerque, NM	38.1%	3.4%	22.3%	63.8%	40	37	31	36	98.3
	Indianapolis, IN	39.3%	3.4%	21.2%	63.8%	48	34	12	37	98.3
	St. Louis, MO	37.2%	4.1%	22.7%	64.0%	27	50	37	38	98.7
	Las Vegas, NV	33.8%	6.0%	24.7%	64.4%	2	57	55	39	99.3
	Chicago, IL	38.4%	2.5%	23.7%	64.6%	45	18	48	40	99.7
	Manchester, NH	39.3%	2.1%	23.3%	64.7%	48	15	44	41	99.7
	Harrisburg, PA	40.3%	2.5%	22.0%	64.7%	58	19	26	42	99.8
	Hartford, CT	38.0%	3.2%	23.8%	65.0%	38	29	49	43	100.2
	Wilmington, DE	39.3%	1.9%	24.0%	65.2%	50	10	51	44	100.5
	Philadelphia, PA	40.3%	1.8%	23.2%	65.3%	58	8	42	45	100.7
	Boise, ID	38.2%	2.6%	24.5%	65.3%	43	20	53	46	100.7
	Providence, RI	38.0%	3.7%	23.7%	65.5%	37	42	47	47	100.9
	North Virginia (Metro DC), VA	37.6%	5.8%	22.5%	65.8%	34	56	34	48	101.5
	Boston, MA	39.0%	3.3%	23.5%	65.8%	47	31	45	49	101.5
	Riverside-San Bernardino, CA	39.6%	3.4%	22.9%	65.9%	53	36	39	50	101.6
	New York City, NY	38.7%	2.9%	24.6%	66.2%	46	23	54	51	102.0
	San Diego, CA	39.6%	3.6%	23.2%	66.4%	53	40	43	52	102.3
	Portland, OR	40.4%	1.2%	24.9%	66.5%	60	3	56	53	102.6
	Trenton, NJ	39.6%	2.3%	25.2%	67.1%	52	16	57	54	103.5
	Anchorage, AK	39.8%	1.0%	26.6%	67.3%	57	2	59	55	103.8
	Spokane, WA	33.8%	10.4%	23.2%	67.3%	2	59	41	55	103.8
	Los Angeles, CA	39.6%	3.8%	24.0%	67.4%	53	45	50	57	103.9
	Honolulu, HI	37.3%	1.8%	28.4%	67.5%	28	6	60	58	104.1
	San Francisco, CA	39.6%	3.8%	25.2%	68.6%	53	43	58	59	105.8
	Seattle, WA	33.8%	11.1%	24.5%	69.3%	2	60	52	60	106.8

Detailed results by city – R&D

The following table details the overall results for all 95 cities. With each country, cities are sorted in order of ascending TTI. Rankings are relative to other cities within the same country.

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
RESEARCH & DEVELOPMENT										
Australia	Adelaide	-43.3%	0.0%	49.9%	6.6%	4	1	1	1	9.6
	Melbourne	-45.2%	0.0%	52.2%	7.0%	2	1	3	2	10.2
	Brisbane	-43.7%	0.0%	51.8%	8.1%	3	1	2	3	11.8
	Sydney	-46.8%	0.0%	56.4%	9.6%	1	1	4	4	14.1
Canada	Fredericton, NB	-46.8%	0.0%	18.9%	-27.9%	1	1	7	1	-40.8
	Moncton, NB	-46.3%	0.0%	18.8%	-27.5%	2	1	6	2	-40.2
	Saskatoon, SK	-41.9%	8.1%	16.6%	-17.3%	3	13	4	3	-25.2
	Halifax, NS	-34.2%	0.1%	17.3%	-16.8%	5	5	5	4	-24.6
	St. John's, NL	-36.7%	0.0%	23.6%	-13.1%	4	1	9	5	-19.2
	Edmonton, AB	-18.0%	0.0%	16.5%	-1.5%	9	1	2	6	-2.2
	Montreal, QC	-24.6%	0.5%	33.1%	9.0%	6	6	15	7	13.1
	Quebec City, QC	-22.0%	0.5%	31.7%	10.1%	7	6	14	8	14.8
	Sherbrooke, QC	-21.6%	0.5%	31.4%	10.3%	8	6	13	9	15.0
	Prince George, BC	0.0%	0.5%	16.5%	17.0%	10	9	1	10	24.8
	Vancouver, BC	0.0%	0.5%	16.5%	17.0%	10	9	2	11	24.9
	St. Catharines-Niagara, ON	6.4%	0.7%	23.8%	30.8%	14	11	10	12	45.0
	Toronto, ON	6.3%	0.7%	24.1%	31.0%	13	11	11	13	45.3
	Winnipeg, MB	0.0%	15.9%	25.3%	41.1%	10	15	12	14	60.1
	Charlottetown, PE	18.2%	15.0%	20.5%	53.8%	15	14	8	15	78.6
France	Lyon	-87.3%	10.7%	151.1%	74.5%	2	1	1	1	108.9
	Paris	-101.1%	14.7%	170.2%	83.8%	1	2	2	2	122.4
Germany	Berlin	31.6%	0.0%	71.2%	102.7%	1	1	1	1	150.1
	Frankfurt	34.0%	0.0%	74.6%	108.5%	2	1	2	2	158.6
Italy	Milan	43.8%	5.5%	86.8%	136.2%	1	1	1	1	199.0
	Rome	49.4%	9.4%	91.2%	150.1%	2	2	2	2	219.3
Japan	Osaka	37.0%	5.2%	46.9%	89.1%	1	2	1	1	130.1
	Tokyo	37.5%	5.1%	47.0%	89.6%	2	1	2	2	131.0
Mexico	Mexico City	30.2%	4.2%	14.1%	48.5%	1	1	1	1	70.9
	Monterrey	30.4%	4.2%	14.8%	49.3%	2	1	2	2	72.0
Netherlands	The Hague	-13.9%	0.5%	47.7%	34.4%	2	1	1	1	50.2
	Brabant Stad	-14.2%	0.6%	48.2%	34.6%	1	2	4	2	50.5
	Utrecht	-13.9%	0.7%	47.7%	34.6%	2	3	1	2	50.5
	Amsterdam	-13.9%	1.3%	47.7%	35.1%	2	4	1	4	51.3
UK	Manchester	-11.8%	0.0%	35.5%	23.7%	2	1	1	1	34.7
	London	-14.3%	0.0%	40.6%	26.3%	1	1	2	2	38.4
US	Honolulu, HI	-13.4%	8.8%	43.3%	38.6%	1	26	60	1	56.5
	Cedar Rapids, IA	11.9%	8.2%	34.2%	54.3%	2	22	17	2	79.4
	Fargo, ND	18.3%	7.3%	30.5%	56.0%	28	13	1	3	81.8
	Omaha, NE	12.8%	9.5%	34.4%	56.7%	3	30	19	4	82.9
	Phoenix, AZ	17.0%	7.7%	32.8%	57.5%	18	18	8	5	84.1
	Bangor, ME	18.3%	6.1%	34.0%	58.3%	28	9	16	6	85.2
	Minneapolis, MN	16.5%	5.2%	36.8%	58.5%	11	7	38	7	85.4
	Saginaw, MI	16.5%	7.0%	35.3%	58.8%	9	12	27	8	85.9
	Sioux Falls, SD	18.2%	10.9%	30.5%	59.6%	24	38	1	9	87.0
	Detroit, MI	16.5%	7.6%	35.6%	59.6%	11	15	31	10	87.1
	Indianapolis, IN	17.2%	10.5%	31.9%	59.7%	20	33	4	11	87.2

Country	City	Effective Tax Rates				Ranks				TTI
		CIT	OCT	SLC	TETR	CIT	OCT	SLC	TETR	
		RESEARCH & DEVELOPMENT								
US	Youngstown, OH	18.2%	8.0%	33.8%	60.0%	26	21	14	12	87.7
	Cheyenne, WY	18.8%	8.7%	32.8%	60.3%	34	24	7	13	88.1
	Milwaukee, WI	16.7%	6.2%	37.4%	60.4%	14	10	40	14	88.3
	Salt Lake City, UT	17.4%	9.9%	33.3%	60.5%	22	32	10	15	88.4
	Wilmington, DE	19.5%	3.1%	38.4%	61.0%	43	5	47	16	89.2
	Portland, OR	20.1%	2.6%	38.3%	61.0%	47	3	45	16	89.2
	Boston, MA	17.3%	7.7%	36.1%	61.1%	21	16	35	18	89.2
	Billings, MT	18.9%	2.0%	40.4%	61.2%	36	1	55	19	89.5
	Buffalo, NY	19.9%	7.7%	33.9%	61.4%	46	17	15	20	89.7
	Burlington, VT	18.6%	7.8%	35.7%	62.1%	31	19	32	21	90.8
	Tampa, FL	21.2%	7.9%	33.1%	62.2%	54	20	9	22	90.9
	Little Rock, AR	19.5%	10.9%	32.0%	62.3%	42	37	5	23	91.1
	Lexington, KY	22.1%	6.9%	33.7%	62.8%	56	11	13	24	91.7
	Baltimore, MD	19.1%	9.2%	34.5%	62.8%	38	28	20	24	91.7
	Miami, FL	20.7%	8.2%	34.3%	63.2%	52	23	18	26	92.3
	Atlanta, GA	16.7%	9.3%	38.2%	64.2%	14	29	44	27	93.8
	Shreveport, LA	18.2%	13.3%	33.3%	64.8%	27	45	11	28	94.6
	Greenville-Spartanburg, SC	18.3%	11.0%	35.5%	64.8%	30	39	29	29	94.7
	Raleigh, NC	19.4%	10.9%	34.6%	64.9%	40	36	21	30	94.8
	Manchester, NH	22.4%	3.1%	39.5%	64.9%	58	4	52	31	94.9
	Albuquerque, NM	15.1%	14.9%	35.3%	65.3%	5	51	27	32	95.4
	New York City, NY	18.7%	7.6%	39.0%	65.3%	32	14	50	32	95.4
	Boise, ID	19.2%	8.7%	37.5%	65.4%	39	25	41	34	95.5
	Anchorage, AK	22.2%	2.1%	41.3%	65.7%	57	2	58	35	96.0
	Philadelphia, PA	23.4%	4.4%	38.0%	65.8%	59	6	43	36	96.1
	Chicago, IL	16.5%	9.6%	39.9%	65.9%	10	31	54	37	96.2
	Harrisburg, PA	24.3%	5.8%	35.8%	65.9%	60	8	33	38	96.3
	Denver, CO	19.6%	11.3%	35.9%	66.9%	44	40	34	39	97.7
	Providence, RI	16.7%	11.6%	38.7%	66.9%	14	41	49	40	97.8
	Spokane, WA	17.0%	16.5%	33.5%	67.0%	19	55	12	41	97.9
	Charleston, WV	18.2%	17.4%	31.7%	67.2%	25	58	3	42	98.3
	Jackson, MS	19.7%	15.0%	32.7%	67.4%	45	53	6	43	98.5
	Wichita, KS	20.2%	11.8%	35.6%	67.5%	50	42	30	44	98.7
	North Virginia (Metro DC), VA	20.1%	13.1%	34.7%	67.9%	48	44	22	45	99.3
	Riverside-San Bernardino, CA	16.5%	14.9%	36.5%	68.0%	13	52	36	46	99.3
	Montgomery, AL	18.8%	14.7%	35.0%	68.5%	35	49	24	47	100.0
	San Diego, CA	16.3%	15.2%	37.1%	68.6%	8	54	39	48	100.2
	McAllen, TX	20.2%	13.6%	35.1%	68.9%	49	47	25	49	100.7
	Seattle, WA	16.2%	17.5%	35.2%	68.9%	7	59	26	49	100.7
	Oklahoma City, OK	20.6%	10.7%	37.8%	69.0%	51	34	42	51	100.9
	Hartford, CT	18.1%	10.8%	40.5%	69.4%	23	35	56	52	101.4
	Trenton, NJ	19.5%	8.8%	41.9%	70.1%	41	27	59	53	102.5
	St. Louis, MO	21.1%	12.5%	36.6%	70.3%	53	43	37	54	102.7
	Los Angeles, CA	15.9%	16.7%	38.3%	70.9%	6	57	45	55	103.5
	Nashville, TN	21.4%	14.9%	34.7%	71.1%	55	50	22	56	103.8
	Dallas-Fort Worth, TX	19.0%	13.8%	39.0%	71.8%	37	48	50	57	104.9
	Houston, TX	18.7%	13.3%	39.8%	71.9%	32	46	53	58	105.0
	San Francisco, CA	14.8%	16.6%	40.9%	72.3%	4	56	57	59	105.6
	Las Vegas, NV	16.8%	18.0%	38.7%	73.5%	17	60	48	60	107.5



Appendix B

Our Approach

Calculation of total tax costs

This report uses two separate measures for total tax costs, with both measures incorporating all manner of taxes levied on corporations—broadly speaking, income taxes, capital taxes, sales taxes, property taxes, miscellaneous local business taxes, and statutory labor costs (that is, statutory plan costs and other wage-based taxes).

In calculating taxes, the study includes income taxes levied by all levels of government (national, regional, and/or local), reflecting specific tax income rules for each jurisdiction (as discussed further in Chapter 3). Other taxes are also calculated according to specific local rules. Labor taxes and other taxes not based on income are calculated to reflect actual business costs in each location, using data on wage rates, real property values, and other relevant business cost factors from KPMG's *Competitive Alternatives 2010* comparison of international business costs.

The calculated total tax costs are compared between countries and cities using a Total Tax Index (TTI) for each location. The TTI is a measure of the total taxes paid by corporations in a particular location, calculated as a percentage of total taxes paid by corporations in the US using the following formula:

$$\frac{\textbf{Total taxes paid by corporations in this location and industry}}{\textbf{Total taxes paid by similar corporations in the US}}$$

To further examine the results of the TTI, and to explore the specific tax components that drive these results, this study defines a second measure of total taxes, which expresses tax costs as an effective rate, rather than an index of taxes actually paid. This measure is the Total Effective Tax Rate (TETR), which is calculated as follows.

$$\frac{\textbf{Total taxes paid by corporations}}{\textbf{Standardized net income before income tax}}$$

In the TETR formula, the denominator is a fixed dollar amount in all locations—standardized net income before income taxes. This allows income taxes paid to be compared in absolute dollar terms using the TTI. As explained in Chapter 3, the TETR is the sum of the effective corporate tax rate (net of incentives), the effective rate of other corporate taxes, and the effective rate of other statutory labor costs. This formula produces the TETR, which allows other corporate taxes and statutory labor costs (which are not calculated based on income) to be compared in percentage terms. Rankings obtained using the TETR are the same as those obtained using the TTI.

Using the formula for TETR, it is possible for it to exceed 100 percent—sometimes by a wide margin. As the table below shows, this does not mean that government taxes are forcing a company into a net loss situation. Because only income taxes are excluded from net income in the denominator, TETR can exceed 100 percent while the company still maintains a positive net income after tax. For example, in France, total tax costs are US$3.03 million per year as compared to net income before income tax of US$2.77 million, for a TETR of 109.5 percent. However, the company's net profit after tax is still US$2.34M. This table also illustrates the calculation of the TTI, with total tax costs in the United States ($1.67 million) being indexed to 100.0, and total tax costs in France (US$3.03 million) being 81.4 percent higher, resulting in a TTI of 181.4.

Example Calculation of Total Tax Index and Total Effective Tax Rate Based on Overall Average results[1]

		US$'000 per annum	
		France	**United States**
Total revenue[2]		15,453	15,563
All non-tax operating expenses		10,085	11,911
Statutory labour costs	SLC	2,234	540
Other corporate taxes	OCT	368	346
Net income before income tax (standardized)[3]	NIBT	2,766	2,766
Corporate income taxes	CIT	426	783
Net profit after tax		2,340	1,983
Total tax cost	TTC=SLC+OCT+CIT	3,028	1,669
Total Tax Index	**$TTI=TTC_x/TTC_{US} \times 100$**	**181.4**	**100.0**
Effective rates for:			
Corporate income taxes (net of incentives)	=CIT/NIBT	15.4%	28.3%
Other corporate taxes	=OCT/NIBT	13.3%	12.5%
Statutory labor costs	=SLC/NIBT	80.8%	19.5%
Total Effective Tax Rate	**TETR=TTC/NIBT**	**109.5%**	**60.4%**

1: Average of 17 business operations (manufacturing and non-manufacturing).
2: Is assumed to vary by location to maintain standard net income before income tax. This reflects companies being able to charge higher prices for goods and services when located in higher-cost regions. This assumption can be found in some real world situations, such as higher prices in London, England, and/or premium prices that can be obtained for German-made goods.
3: Standardized for all locations to provide a common denominator for measuring taxes not based on income.

Interpretation of results

Our analysis is based on cost information collected primarily between July 2009 and January 2010. Taxes reflect tax rates in effect on January 1, 2010, and also incorporate any announced changes at that time to take effect at specified later dates. Tax rates and other tax-related information are also subject to further change as a result of new legislation, judicial decisions, and administrative pronouncements. Of course, exchange rates and other cost factors will change over time.

Additional background

Competitive Alternatives represents KPMG's guide to comparing business locations in North America, Europe, and Asia Pacific. With a primary focus on international business costs, the *Competitive Alternatives* report measures the combined impact of 26 significant cost components that are most likely to vary by location, as applied to specific industries and business operations. The *Competitive Alternatives* report also includes secondary comparisons of other factors that influence the competitiveness of international business locations.

The 6-month research program for *Competitive Alternatives* (July 2009 to January 2010) covered 112 cities in the same 10 countries as this report. More than 1,900 individual business scenarios were examined, analyzing more than 40,000 items of data. The basis for the business cost comparisons is the after-tax cost of startup and operation for representative business operations in 17 industries over a 10-year planning horizon. National results are based on the combined results for two major business centers in each country (or, for the United States, the four largest business centers).

This Tax Supplement study complements the main *Competitive Alternatives* report and expands on the coverage of taxation issues in that study. This study shares much of the same methodology, modeling assumptions, and data sources developed for *Competitive Alternatives 2010*.

Further information on study methodology and scope, including key modeling assumptions, can be found in Chapter 1 of the *Competitive Alternatives 2010* study report.

Full details of the specific tax rates applied for corporate income tax and other corporate taxes in each jurisdiction can be found in Appendix B of the *Competitive Alternatives 2010* Volume II study report.

Full details of data sources used for tax information and the broader business cost factors (such as local wages and property values) that impact this study can be found in Appendix D of the Competitive Alternatives 2010 Volume II study report.

These documents are available from **www.CompetitiveAlternatives.com/download**.

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