# Taxation and development

## Effects of Dutch tax policy on taxation of multinationals in developing countries

Francis Weyzig

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Cover: 17th century iron treasure chest at the Dutch Ministry of Finance.
Picture by Gerard Til/Hollandse Hoogte.

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## Effects of Dutch tax policy on taxation of multinationals in developing countries

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Francis Weyzig

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Promotor:
Prof. dr. R. Ruben

Manuscriptcommissie:
Prof. dr. E. de Jong
Prof. dr. B. W. Lensink (Rijksuniversiteit Groningen)
Prof. dr. A. F. P. Bakker (Vrije Universiteit)

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# Summary

**Taxation is essential for development finance and good governance**
This PhD thesis analyses effects of Dutch corporate tax policy on developing countries. Developing countries need sustainable sources of finance for public expenditures and investments. Therefore, they ought to enhance domestic revenue mobilisation. However, developing countries are faced with various challenges to raise tax revenues, such as insufficient administrative capacity and corporate tax avoidance. Some of these challenges have an international character. This certainly applies to tax avoidance, for which firms often use strategies that involve Special Purpose Entities (SPEs) in donor countries. As a consequence, the tax policy of donor countries can affect revenue mobilisation in developing countries by creating or restricting tax avoidance opportunities. Dutch tax policy is particularly relevant, because multinationals use Dutch SPEs on a very large scale.

Chapter 1 argues that tax revenues are a key source of financing for development. Foreign Direct Investment (FDI), migrant remittances, trade, and other private external flows can enhance investment and economic growth. However, private commercial flows do not contribute directly to the financing of public services, such as education, health care, sanitation, and basic infrastructure, which are essential for social development. Therefore public sector financing through tax revenues remains essential. Tax revenues in developing countries without large government income from oil, diamonds, or other natural resources are often between 15% and 25% of Gross Domestic Product (GDP), much lower than in high income countries. In low income and lower-middle income countries, Official Development Assistance (ODA) from donors is still a substantial source of public finance as well, but it is not a very reliable or sustainable source. This implies that developing countries need to strengthen their domestic revenue mobilisation.

From a developmental perspective, taxes are not only a source of revenue; a more comprehensive analytical framework takes into account four main purposes of taxation. The first purpose, revenue generation, is also an instrument for macroeconomic policy. A second purpose is redistribution, through progressive taxation and limiting tax incidence on people with lower ability-to-pay. Redistribution is important because development has increasingly become an issue of inequality, also at the national level. A third purpose is representation; taxation is a catalyst for the establishment of governments that are more responsive and accountable towards their own citizens. Development aid has no such effect and fosters accountability to external donors instead. A fourth purpose of taxation is re-pricing, which refers to minimising market distortions and providing tax incentives to address externalities. Different types of taxes have different properties. Taxes on personal and corporate income tend to have the strongest positive effect on governance, but provide a relatively strong disincentive to economic activity.

**Taxation of multinationals is difficult because of international tax avoidance**

Corporate taxes are an important revenue component in developing countries. In middle income countries, corporate taxes typically generate between 10% and 30% of total tax revenues. This contrasts with high income countries, where corporate taxes are generally not a major source of revenue. The importance of corporate tax revenues for developing countries implies that potential threats to these revenues – such as tax avoidance by multinationals – are highly relevant in the context of financing for development.

For developing countries, taxing multinational enterprises involves multiple challenges and constraints. A major domestic constraint is weak administrative capacity. Furthermore, many countries lose revenues due to tax competition, often at the regional level, and poorly targeted tax incentives for foreign investors. At the international level, tax avoidance and evasion due to transfer mispricing is a major challenge. Transfer mispricing involves the manipulation of prices for trade between affiliates of the same multinational, usually to shift profits to low-tax jurisdictions. Moreover, multinationals shift profits through royalty payments for the use of trademarks and other intellectual property and through interest payments, by financing subsidiaries in high-tax countries with a larger proportion of debt. These issues have been relatively well covered in existing research.

This thesis mainly focuses on avoidance of withholding taxes, an issue that has received limited attention so far. Withholding taxes are levied on dividend, interest, or royalty payments to foreign entities. They play an important role in corporate taxation for several reasons. Withholding taxes are relatively easy to collect and can be a substantial source of revenues. In Kenya and Zambia, for instance, withholding taxes accounted for approximately 5% of total tax revenues in 2007. Furthermore, withholding taxes can have the effect of shifting tax payments towards the host country of foreign investment, which is beneficial for capital-importing developing countries. Withholding taxes also prevent non-taxation of income paid to foreign security holders and can serve as a backstop measure against profit shifting.

**Dutch corporate tax policy facilitates certain tax avoidance structures**

A central element of Dutch corporate tax policy that facilitates tax avoidance by multinationals is the unique network of bilateral tax treaties. As of end 2012, the Netherlands had concluded tax treaties with six low income countries and 41 middle income countries outside the European Union (EU). Some of these tax treaties strongly reduce the treaty partners' standard withholding tax rates, or eliminate them, for payments to Dutch entities. Moreover, only six of the 47 treaties contain anti-abuse provisions for dividend payments that protect tax revenues in the partner country and only three contain anti-abuse provisions for interest and royalties. The Netherlands itself has a dividend withholding tax of 15%, but this is often reduced to 5% or 0% for intra-firm dividends under a tax treaty or the EU Parent-Subsidiary Directive. There exists no Dutch withholding tax on interest or royalty payments. This combination of tax policy

elements makes the Netherlands particularly attractive for conduit structures that involve dividend, interest or royalty payments passing through a Dutch SPE to benefit from withholding tax reductions under Dutch tax treaties.

Another relevant aspect of Dutch tax policy is the special tax treatment of certain entities, resulting in low effective rates of corporate income tax. Between 1997 and 2010, approximately 90 firms benefitted from the Group Financing Activities (GFA) regime, a low-tax facility for intra-group interest and royalty income that has been phased out. In 2006, the Dutch government adopted a new low-tax facility for interest income to replace the GFA regime, but this facility never entered into force because it was incompatible with EU legislation. Currently some SPEs benefit from advance pricing agreements (APAs) with the Dutch tax authority, often referred to as tax rulings, that specify small taxable margins on net interest, royalty, or trading income, even though actual margins can be higher. Such special tax treatment facilitates avoidance of corporate income tax in other countries through profit shifting, especially in combination with Dutch tax treaties that strongly reduce withholding tax on interest and royalties.

This thesis focuses on negative and unintended effects of Dutch tax policy. It does not contain a complete assessment of all effects, which materialise through different pathways. Dutch tax treaties stimulate foreign investments by Dutch multinationals and facilitate borrowing by developing country firms from Dutch banks and institutional investors. Dutch tax policy can therefore generate a positive volume effect, increasing investment in developing countries. At the same time, the reduced withholding taxes on payments to Dutch firms and creditors cause a negative rate effect, intentionally reducing revenues for a given level of investment. These intended positive and negative effects are relatively well understood and therefore not investigated here.

From a developing country perspective, negative rate effects of conduit structures are usually unintended. Conduit structures can reduce withholding taxes on payments to entities in third countries passing through a Dutch SPE. Furthermore, conduit structures and special tax treatment of Dutch SPEs provide incentives to increase borrowing or transfer intellectual property to the Netherlands. This may influence the composition of a firm's assets and liabilities and negatively affect the tax base in developing countries. The present research focuses on these unintended rate and composition effects. The balance between positive and negative effects differs per developing country.

**Dutch tax and development policy have been incoherent**

Chapter 2 investigates how international aspects of Dutch corporate tax policy relate to Dutch development policy. It uses the concept of Policy Coherence for Development (PCD), which refers to the absence of policy effects contrary to development aims as well as to the creation of synergies between different government departments to achieve development aims. Most PCD initiatives focus on the effects of trade policy. Since 2009, the EU's PCD agenda also includes tax governance. This mainly provides

for technical assistance to strengthen tax systems in developing countries, but does not consider effects of corporate tax policies in EU member states.

In the Netherlands, the Ministry of Foreign Affairs aims to promote PCD and recognises the relevance of Dutch corporate tax policy in this regard. Over the past decade, the Ministry has paid considerable attention to both domestic and international constraints for domestic resource mobilisation in developing countries, including transfer mispricing and excessive use of tax incentives. This development agenda implies that unintended negative effects of Dutch tax policy on developing countries are incoherent with development policy and can thus be considered adverse effects.

However, the use of Dutch SPEs in tax avoidance strategies of multinationals had largely escaped attention from policy makers and the broader public until 2007. As a result, Dutch tax policy has been incoherent with Dutch policy on development cooperation. The approval of a new low-tax regime in 2006 that could obviously be used to shift profits out of developing countries provides clear evidence of the policy incoherence. The causes of policy incoherence are structural and political in nature, because the interests of developing countries inherently conflict with special interests of various large multinationals and Dutch service providers.

The tax treaty policy of the Dutch Ministry of Finance published in 2011 reaffirms the importance of PCD. It interprets policy coherence as an imperative to strengthen tax compliance in and information sharing with developing countries. It also mentions that the Netherlands is willing to allow relatively high withholding taxes in treaties with developing countries and is committed to include anti-abuse provisions if requested. These principles reflect increasing attention for coherence between Dutch tax and development policy, but do not yet address existing adverse effects.

**Multinationals use Dutch SPEs for treaty shopping, avoiding dividend withholding tax**

Some multinationals avoid withholding taxes by diverting FDI through a conduit country with favourable tax treaties. This practice is called tax treaty shopping. Host countries of foreign investment generally disapprove of treaty shopping, because it breaches the principle of reciprocity. Case law provides clear examples of tax treaty shopping via Dutch SPEs. In addition, passing on equity investments is the largest activity of Dutch SPEs and accounts for up to 50% of their combined balance sheets.

To assess to what extent Dutch SPE investments are associated with tax treaty shopping, Chapter 3 analyses the effect of tax treaties and other structural determinants on FDI routed through the Netherlands. It uses anonymised micro data on large Dutch SPE, covering approximately 90% of total Dutch SPE assets. Excluding the major emerging economies Brazil, Russia, India, China, South Africa and Mexico, 37 low and middle income countries had a tax treaty with the Netherlands in 2007. At the aggregate level, out of the combined €582 billion inward FDI stock in these countries, €53 billion or approximately 9% was held via Dutch SPEs. For the group of developing countries

that did not have a tax treaty with the Netherlands, the proportion was 6%, thus a third lower.

Econometric analysis at the level of country pairs confirms that the share of diverted FDI is higher if the home and host country both have a tax treaty with the Netherlands, and lower if there exists a direct treaty between the home and host country. Bilateral Investment Treaties (BITs) and gravity effects also contribute to FDI diversion. European headquarters or home and host country corruption do not have a significant effect. As tax benefits differ between treaties, the analysis also takes into account bilateral dividend withholding tax rates and home and host country tax systems. The results show that FDI diversion is partly driven by specific corporate structures that reduce the total tax on distributed foreign profits by taking advantage of Dutch tax treaties. It can therefore be concluded that FDI diversion partly results from tax treaty shopping.

On average, the possibility to avoid dividend withholding tax causes a few additional percent of bilateral FDI stock to be routed through the Netherlands. Macro data presented in Chapter 5, which investigates the impact of specific tax avoidance strategies in more detail, show that some individual host countries are affected more strongly. For example, the Philippines has a tax treaty with the Netherlands that provides for a 10% withholding tax on dividends to Dutch parents, whereas the applicable rate to the US, the UK, and a range of other countries is at least 15%. This is one of the reasons why FDI via the Netherlands amounted to 27% of total inward FDI stock in the Philippines in 2010. Other developing countries with a special Dutch tax treaty and a large share of diverted FDI include Ghana (20%), Ukraine (15%), and Indonesia (10%).

In theory, FDI diversion influences tax revenues via both a volume and a rate effect. However, studies analysing the volume effect of tax treaties on bilateral FDI have produced mixed results. For all developing countries combined, a significant positive volume effect is even more uncertain than for an individual country, because of competition for foreign investments. It can therefore be concluded that the rate effect is dominant. In 2007, Dutch SPEs received more than €5 billion of dividends from low and middle income countries, of which they passed on almost €3 billion to foreign parents. These figures imply that even a small rate effect, for example a 3%-point lower withholding tax on these dividend flows, can substantially reduce tax revenues.

**Dutch SPEs facilitate avoidance of interest withholding tax, increasing leverage**

Some multinationals also channel interest payments through Dutch SPEs to avoid withholding taxes. Using anonymised micro data, Chapter 5 shows that in 2007, Dutch SPEs had onlent more than €450 billion to foreign affiliates. The sources of these funds were roughly €250 billion of debt securities issued by the SPEs, €150 billion of intra-group loans, and €50 billion of third party loans. The onlending activities account for more than 25% of Dutch SPEs' combined balance sheets and are often combined with holding activities.

Focussing on developing countries, securities data indicate that firms from Indonesia and Kazakhstan had issued by far the largest volume of debt securities via the Netherlands. In 2010, Dutch SPEs passed on €0.6 billion of interest payments from Indonesian firms to holders of debt securities. Due to the tax treaty between Indonesia and the Netherlands, most of these interest flows are free of withholding tax, whereas a rate of 10% to 20% applies to interest paid directly from Indonesia to external creditors in almost all other countries. For Kazakhstan, the Dutch treaty does not specify a lower rate than other tax treaties. Interest payments from developing countries passed on within the group are smaller than interest passed on to external creditors. Thus, the main rate effect of interest channelled through Dutch SPEs concerns a substantial reduction of Indonesian withholding tax revenues.

Debt financing via Dutch SPEs can have a composition effect as well. At the firm level, lower borrowing costs can lead to higher leverage. At the subsidiary level, firms may engage in debt shifting and use Dutch SPEs to pass on interest payments to lowly taxed affiliates, increasing the leverage of normal subsidiaries. Chapter 4 investigates these effects. An analysis of composition effects at the subsidiary level requires financial data that are not readily available from developing countries. Therefore, the analysis looks at the capital structure of EU-based multinationals and their EU subsidiaries instead.

Econometric analysis shows that at the firm level, debt issuance via Dutch SPEs is associated with significantly higher debt. Controlling for relevant firm characteristics, EU firms with a Dutch issuing SPE on average have a ten percentage points higher ratio of debt to equity capital plus debt. This large effect could result from differences in tax aggressiveness; firms with a more aggressive tax strategy may use more debt financing and are also more likely to avoid withholding taxes via Dutch SPEs. However, other Dutch SPE types are not associated with significantly higher firm leverage. This confirms that debt issuance via SPEs facilitates higher debt financing.

At the subsidiary level, the analysis yields three important results. First, EU subsidiaries of larger multinationals are more leveraged. Second, the use of Dutch onlending SPEs is associated with higher subsidiary leverage, whereas the use of other Dutch SPE types is not. Third, in large firms, the sensitivity of subsidiary leverage to host country tax rate is relatively low. In combination, these results suggest that large firms are more likely to shift profits from EU subsidiaries to special lowly taxed affiliates and that this is partly facilitated by Dutch onlending SPEs.

Thus, both external debt and intra-group loans channelled through Dutch SPEs involve composition effects. Regarding external debt, this implies an additional revenue loss for Indonesia, due to the high debt issuance via the Netherlands. The composition effect of intra-group loans is relatively small; in 2007, Dutch SPEs passed on only €0.2 billion of interest payments from developing countries to low-tax affiliates.

**Royalty structures involving Dutch SPEs facilitate income shifting**

Advance pricing agreements between SPEs and the Dutch tax authority that specify an alternative tax base can facilitate profit shifting to the Netherlands through royalty payments or other types of transactions. Chapter 5 shows that in 2007, Dutch SPEs received approximately €0.3 billion of royalty income from developing countries that was not passed onwards. At least part of these flows involved profit shifting to the Netherlands. Royalty payments from developing countries passing through Dutch SPEs were only €0.1 billion and thus relatively small. For developing countries, royalty structures involving Dutch SPEs therefore mainly have a composition effect, reducing the host country tax base.

**Conclusion: Dutch tax policy has adverse effects on certain developing countries**

Chapter 6 concludes that several aspects of Dutch corporate tax policy can have negative revenue effects in developing countries. A key policy aspect concerns Dutch tax treaties with developing countries that specify relatively large reductions of withholding taxes, without effective anti-avoidance provisions. Due to differences among tax treaties and partner country withholding tax regimes, Dutch tax policy affects some countries more strongly than others. The revenue effects are considered to be adverse because they are incoherent with the aims of Dutch development policy and against the interests of developing countries.

Tax avoidance strategies facilitated by Dutch corporate tax policy also have an impact on the redistribution, representation, and re-pricing roles of taxation. At the international level, tax avoidance leads to redistribution from developing countries to the Netherlands and other high income countries. Distributional effects at the national level depend on the domestic tax systems of developing countries. Regarding representation, tax avoidance by multinationals can weaken broader taxpayer morale and hinder constructive revenue bargaining. Finally, an important re-pricing effect is the distortion of competition between large firms that can engage in international tax arbitrage and smaller firms that cannot, reducing market efficiency. These negative effects on broader economic development are difficult to quantify, but may be at least as important as the direct effect on public revenue mobilisation.

# Samenvatting (Summary in Dutch)

**Belastingen zijn essentieel voor ontwikkelingsfinanciering en goed bestuur**

Dit proefschrift analyseert effecten die ontwikkelingslanden ondervinden van Nederlands belastingbeleid voor ondernemingen. Ontwikkelingslanden hebben duurzame financieringsbronnen nodig voor publieke uitgaven en investeringen. Daarom zouden zij hun capaciteit om binnenlandse opbrengsten te genereren moeten versterken. Bij het verhogen van belastinginkomsten hebben ontwikkelingslanden te maken met verschillende uitdagingen, zoals onvoldoende capaciteit bij de belastingdienst en belastingontwijking door bedrijven. Sommige van deze uitdagingen hebben een internationaal karakter. Dat is zeker het geval bij belastingontwijking, waarvoor ondernemingen vaak strategieën gebruiken waar Bijzondere Financiële Instellingen (BFI's) in donorlanden een rol in spelen. Daarom kan het belastingbeleid van donorlanden invloed hebben op belastinginkomsten in ontwikkelingslanden door mogelijkheden voor ontwijking te creëren of juist te beperken. Nederlands belastingbeleid is hierbij van speciaal belang, want multinationale ondernemingen maken op zeer grote schaal gebruik van Nederlandse BFI's.

Hoofdstuk 1 zet uiteen dat belastingopbrengsten een cruciale bron van financiering voor ontwikkeling zijn. Buitenlandse Directe Investeringen (FDI), overmakingen van migranten, handel en andere private internationale stromen kunnen leiden tot meer investeringen en economische groei. Private commerciële stromen dragen echter niet rechtstreeks bij aan de financiering van publieke diensten, zoals onderwijs, gezondheidszorg, riolering en basisinfrastructuur, die essentieel zijn voor sociale ontwikkeling. Financiering van de publieke sector door middel van belastinginkomsten blijft daarom essentieel. In ontwikkelingslanden die geen hoge overheidsinkomsten hebben uit olie, diamanten of andere natuurlijke hulpbronnen, bedragen de belastinginkomsten meestal tussen de 15% en 25% van het Bruto Binnenlands Product (BBP). Dit is veel lager dan in hoge inkomenslanden. Daarnaast vormt Officiële Ontwikkelingshulp (ODA) van donoren nog een substantiële bron van overheidsinkomsten in lage inkomenslanden en lagere middeninkomenslanden, maar ODA is geen erg betrouwbare of duurzame bron. Dit impliceert dat ontwikkelingslanden hun capaciteit om binnenlandse opbrengsten te genereren moeten versterken.

Vanuit een ontwikkelingsperspectief vormen belastingen niet alleen een bron van opbrengsten; een breder analytisch kader houdt rekening met vier hoofddoelen van belastingheffing. Het eerste doel, opbrengsten genereren, is ook een instrument voor macro-economisch beleid. Een tweede doel is herverdeling, via progressieve belastingen en beperking van de belastingdruk op personen met minder draagkracht. Herverdeling is belangrijk omdat ontwikkeling steeds meer een ongelijkheidsvraagstuk is geworden, ook op nationaal niveau. Een derde doel is vertegenwoordiging; belastingheffing is een katalysator voor het ontstaan van betrokken overheden die verantwoording afleggen aan hun eigen burgers. Ontwikkelingshulp heeft dat effect niet en werkt juist verantwoording

aan externe donoren in de hand. Een vierde doel van belastingheffing is prijssturing. Dit heeft betrekking op het minimaliseren van marktverstoringen en het inzetten van belastingprikkels om te compenseren voor externaliteiten. Verschillende soorten belastingen hebben vanuit dit perspectief verschillende positieve en negatieve eigenschappen. Belastingen op inkomsten van personen en bedrijven hebben vaak het sterkste positieve effect op overheidsbestuur, maar hebben tevens een relatief sterk ontmoedigend effect op economische activiteit.

**Belastingheffing op multinationale ondernemingen is lastig vanwege internationale belastingontwijking**

Bedrijfsbelastingen zijn een belangrijke component van overheidsinkomsten in ontwikkelingslanden. In middeninkomenslanden genereren bedrijfsbelastingen doorgaans tussen de 10% en 30% van de totale belastingopbrengst. Dit staat in sterk contrast met hoge inkomenslanden, waar bedrijfsbelastingen meestal geen grote bron van overheidsinkomsten vormen. Het belang van bedrijfsbelastingen voor ontwikkelingslanden impliceert dat potentiële bedreigingen hiervoor – zoals belastingontwijking door multinationale ondernemingen – zeer relevant zijn voor ontwikkelingsfinanciering.

Voor ontwikkelingslanden gaat belastingheffing op multinationale ondernemingen gepaard met verschillende uitdagingen en beperkingen. Een belangrijke binnenlandse beperking is beperkte capaciteit van de belastingdienst. Verder lopen veel landen opbrengsten mis vanwege belastingconcurrentie, die vaak plaats vindt op regionaal niveau, en slecht gerichte belastingvrijstellingen voor buitenlandse investeerders. Op internationaal niveau vormt belastingontwijking en -ontduiking via onjuiste verrekenprijzen een grote uitdaging. Daarbij vindt prijsmanipulatie plaats in handelstransacties tussen entiteiten die tot dezelfde multinational behoren, meestal om winsten te verplaatsen naar laag belastende jurisdicties. Bovendien verschuiven multinationale ondernemingen winsten via royaltybetalingen voor het gebruik van merkrechten of intellectueel eigendom. Winstverschuiving vindt ook plaats via rentebetalingen, waarbij dochterbedrijven in landen met een hoog belastingtarief voor een groter deel met schulden worden gefinancierd. Deze onderwerpen komen relatief uitgebreid aan bod in bestaand onderzoek.

Dit proefschrift focust voornamelijk op de ontwijking van bronbelastingen, een onderwerp dat tot nu toe beperkte aandacht heeft gekregen. Bronbelastingen worden geheven op dividend-, rente- en royaltybetalingen aan buitenlandse entiteiten. Deze belastingen spelen om verschillende redenen een belangrijke rol in belastingheffing op bedrijven. Bronbelastingen zijn relatief eenvoudig te innen en kunnen een substantiële bron van opbrengsten vormen. In Kenia en Zambia waren bronbelastingen bijvoorbeeld goed voor 5% van de totale belastingopbrengsten in 2007. Verder kunnen bronbelastingen leiden tot een verschuiving van belastingafdrachten naar het gastland van buitenlandse investeringen, wat gunstig is voor kapitaal importerende

ontwikkelingslanden. Bronbelastingen voorkomen ook het ontgaan van belastingen op inkomsten die toekomen aan buitenlandse aandeel- en obligatiehouders en kunnen een achtervangfunctie hebben bij het tegengaan van winstverschuiving.

**Nederlands belastingbeleid voor ondernemingen faciliteert bepaalde vormen van belastingontwijking**

Een centraal element in Nederlands belastingbeleid voor ondernemingen dat belastingontwijking door multinationals faciliteert, is het unieke netwerk van bilaterale belastingverdragen. Per ultimo 2012 heeft Nederland belastingverdragen gesloten met 6 lage inkomenslanden en 41 middeninkomenslanden buiten de Europese Unie (EU). Sommige van deze verdragen voorzien in een aanzienlijke verlaging van de standaard bronbelastingtarieven van verdragspartners, of elimineren deze bronbelastingen, voor betalingen aan Nederlandse entiteiten. Bovendien bevatten slechts zes van de 47 verdragen antimisbruikbepalingen voor dividenden die belastingopbrengsten in het partnerland beschermen en bevatten slechts drie verdragen antimisbruikbepalingen voor rente en royalty's. Nederland heeft zelf een bronbelasting op dividend van 15%, maar voor deelnemingsdividenden wordt dit tarief meestal verlaagd tot 5% of 0% onder een belastingverdrag of de EU Moeder-Dochterrichtlijn. Nederland heft geen bronbelasting op rente- of royaltybetalingen. Deze combinatie van beleidselementen maakt Nederland bijzonder aantrekkelijk voor doorsluisstructuren, waarbij dividend-, rente- of royaltybetalingen via een Nederlandse BFI lopen om te profiteren van verlaagde bronbelastingen vanwege Nederlandse belastingverdragen.

Een ander relevant aspect van Nederlands belastingbeleid is de bijzondere fiscale behandeling van bepaalde entiteiten, die leidt tot lage effectieve tarieven van vennootschapsbelasting (VpB). Tussen 1997 en 2010 maakten ongeveer 90 bedrijven gebruik van de regeling voor Concernfinancieringsactiviteiten (CFA), een fiscaal gunstig regime voor rente- en royaltyinkomsten binnen een internationaal concern dat inmiddels is uitgefaseerd. In 2006 nam de Nederlandse regering de groepsrentebox aan ter vervanging van de CFA-regeling, maar de groepsrentebox is nooit in werking getreden omdat deze in strijd was met EU-wetgeving. Tegenwoordig profiteren sommige BFI's van advance pricing agreements (APA's), afspraken met de belastingdienst die zekerheid vooraf geven en ook wel rulings worden genoemd, waarin lage belastbare marges worden vastgelegd voor netto rente-, royalty- of handelsinkomsten, terwijl de werkelijke marges hoger kunnen zijn. Een dergelijke fiscale behandeling faciliteert ontwijking van VpB in andere landen via winstverschuiving, vooral in combinatie met Nederlandse belastingverdragen die de bronbelasting op rente en royalty's sterk verlagen.

Dit proefschrift focust op negatieve en onbedoelde effecten van Nederlands belastingbeleid. Het bevat geen complete beoordeling van alle effecten, die zich manifesteren via verschillende kanalen. Nederlandse belastingverdragen stimuleren buitenlandse investeringen van Nederlandse bedrijven en faciliteren leningen van

Nederlandse banken en institutionele investeerders aan bedrijven in ontwikkelingslanden. Nederlands belastingbeleid kan daardoor een positief volume-effect hebben op investeringen in ontwikkelingslanden. Tegelijk kunnen verlaagde bronbelastingen op betalingen aan Nederlandse bedrijven en crediteuren een negatief tariefeffect veroorzaken en daardoor doelbewust de belastingopbrengst verminderen bij een gegeven niveau van investeringen. Deze voorziene positieve en negatieve effecten worden relatief goed begrepen en daarom hier niet onderzocht.

Vanuit het perspectief van ontwikkelingslanden zijn negatieve tariefeffecten van doorsluisstructuren meestal onbedoeld. Doorsluisstructuren kunnen leiden tot lagere bronbelastingen op betalingen aan entiteiten in derde landen via Nederlandse BFI's. Bovendien kunnen dergelijke structuren en de bijzondere fiscale behandeling van BFI's een prikkel geven om hogere schulden aan te gaan of intellectueel eigendom naar Nederland te verplaatsen. Dit kan de samenstelling van de activa en passiva van een bedrijf beïnvloeden en de belastingbasis in ontwikkelingslanden verkleinen. Dit onderzoek spitst zich toe op deze onbedoelde tarief- en verschuivingseffecten. De balans tussen positieve en negatieve effecten verschilt per ontwikkelingsland.

**Gebrek aan coherentie tussen Nederlands belasting- en ontwikkelingsbeleid**

Hoofdstuk 2 onderzoekt hoe internationale aspecten van Nederlands belastingbeleid voor ondernemingen zich verhouden tot Nederlands ontwikkelingsbeleid. Hierbij wordt het concept Beleidscoherentie voor Ontwikkeling (BCO) gebruikt, wat verwijst naar de afwezigheid van beleidseffecten die strijdig zijn met ontwikkelingsdoelen en het creëren van synergie tussen verschillende ministeries om ontwikkelingsdoelen te bereiken. De meeste BCO-initiatieven focussen op de effecten van handelsbeleid. Sinds 2009 gaat de BCO-agenda van de EU ook over fiscaal bestuur. Daarbij wordt voornamelijk voorzien in technische assistentie om belastingsystemen in ontwikkelingslanden te versterken, maar is geen aandacht voor de effecten van belastingbeleid voor ondernemingen van EU-lidstaten.

In Nederland probeert het Ministerie van Buitenlandse Zaken om BCO te bevorderen en erkent daarbij de relevantie van Nederlands belastingbeleid voor ondernemingen. Het afgelopen decennium heeft het Ministerie aanzienlijke aandacht besteed aan zowel lokale als internationale belemmeringen voor het genereren van binnenlandse opbrengsten in ontwikkelingslanden, waaronder onjuiste verrekenprijzen en excessief gebruik van belastingvrijstellingen. Deze ontwikkelingsagenda impliceert dat onbedoelde effecten van Nederlands belastingbeleid op ontwikkelingslanden incoherent zijn met ontwikkelingsbeleid en dus als onwenselijk kunnen worden beschouwd.

Het gebruik van Nederlandse BFI's in strategieën van multinationale ondernemingen om belasting te ontwijken ontsnapte tot 2007 echter grotendeels aan de aandacht van beleidsmakers en het bredere publiek. Als gevolg daarvan bestond een gebrek aan coherentie tussen Nederlands belasting- en ontwikkelingsbeleid. De

goedkeuring van de groepsrentebox in 2006, die duidelijk gebruikt kon worden om winsten uit ontwikkelingslanden naar Nederland te verplaatsen, is een onmiskenbaar bewijs van het gebrek aan coherentie. De oorzaken van incoherent beleid zijn zowel structureel als politiek, omdat de belangen van ontwikkelingslanden inherent conflicteren met bijzondere belangen van sommige grote multinationale ondernemingen en Nederlandse dienstverleners.

Het Ministerie van Financiën publiceerde in 2011 een nieuwe Notitie Fiscaal Verdragsbeleid (NFV) waarin het belang van BCO wordt bevestigd. Beleidscoherentie betekent volgens deze notitie dat de naleving van belastingwetgeving en informatie-uitwisseling met ontwikkelingslanden moet worden verbeterd. De notitie beschrijft ook dat Nederland bereid is om in verdragen met ontwikkelingslanden relatief hoge bronbelastingen toe te staan en antimisbruikbepalingen op te nemen wanneer daarom wordt verzocht. Deze principes weerspiegelen de toenemende aandacht voor coherentie tussen Nederlands belasting- en ontwikkelingsbeleid, maar gaan nog niet in op de aanpak van bestaande onwenselijke effecten.

**Multinationale ondernemingen gebruiken BFI's voor doorsluisconstructies en ontwijken zo bronbelasting op dividend**

Sommige multinationale ondernemingen ontwijken bronbelastingen op dividend door FDI om te leiden via een doorsluisland met gunstige belastingverdragen. Deze praktijk wordt ook wel tax treaty shopping genoemd. Gastlanden van buitenlandse investeringen staan meestal afkeuren tegenover tax treaty shopping, omdat dit afbreuk doet aan het principe van wederkerigheid. Jurisprudentie geeft duidelijke voorbeelden van tax treaty shopping via Nederlandse BFI's. Bovendien is het doorsluizen van investeringen in eigen vermogen de belangrijkste activiteit van Nederlandse BFI's, goed voor zo'n 50% van hun gezamenlijke balanstotaal.

Om na te gaan in hoeverre investeringen via BFI's verband houden met tax treaty shopping, analyseert hoofdstuk 3 het effect van belastingverdragen en andere structurele factoren op FDI omgeleid via Nederland. De analyse gebruikt geanonimiseerde microdata van grote BFI's en dekt ongeveer 90% van de totale activa van BFI's. Afgezien van de grote opkomende economieën Brazilië, Rusland, India, China, Zuid-Afrika en Mexico hadden 37 lage en middeninkomenslanden in 2007 een belastingverdrag met Nederland. De totale stand van FDI in deze landen was samen €582 miljard, waarvan ongeveer 9% (€53 miljard) eigendom was van een Nederlandse BFI. Voor de groep van ontwikkelingslanden zonder belastingverdrag met Nederland bedroeg dit aandeel 6%, een derde minder.

Econometrische analyse op het niveau van landenparen bevestigt dat het omgeleide FDI-gedeelte hoger is als het thuis- en gastland allebei een belastingverdrag met Nederland hebben, en lager als er een direct verdrag bestaat tussen het thuis- en gastland. Investeringsbeschermingsovereenkomsten (IBO's) en economische verwevenheid verklaren ook een deel van de investeringen via BFI's. Europese

hoofdkantoren of corruptie in het thuis- en gastland hebben geen significant effect. Omdat belastingvoordelen verschillen tussen verdragen, houdt de analyse ook rekening met bilaterale bronbelastingtarieven voor dividend en met de belastingregimes in thuis- en gastlanden. De resultaten laten zien dat omleiding van FDI deels wordt gedreven voor specifieke bedrijfsstructuren die de totale belasting op uitgekeerde winst verlagen door gebruik te maken van Nederlandse belastingverdragen. Hieruit kan worden geconcludeerd dat omgeleide FDI deels het gevolg is van tax treaty shopping.

Gemiddeld genomen leidt de mogelijkheid om bronbelasting op dividend te ontwijken tot enkele procenten hogere bilaterale investeringsposities via Nederland. Hoofdstuk 5, waarin de invloed van verschillende strategieën voor belastingontwijking in meer detail wordt onderzocht, laat aan de hand van macrodata zien dat sommige individuele gastlanden sterker worden geraakt. De Filippijnen hebben bijvoorbeeld een belastingverdrag met Nederland dat voorziet in een bronbelastingtarief van 10% op dividend uitgekeerd aan Nederlandse moederbedrijven, terwijl het betreffende tarief voor de VS, het VK en diverse andere landen minstens 15% bedraagt. Dit is één van de redenen waarom 27% van de totale bestaande FDI in de Filippijnen ultimo 2010 via Nederland was geïnvesteerd. Andere ontwikkelingslanden die een speciaal belastingverdrag met Nederland en een hoog aandeel omgeleide FDI hebben, zijn Ghana (20%), Oekraïne (15%) en Indonesië (10%).

In theorie heeft het doorsluizen van FDI zowel een volume- als een tariefeffect op de belastingopbrengsten. De resultaten van studies die het volume-effect van belastingverdragen op bilaterale FDI analyseren, zijn echter gemengd. Voor alle ontwikkelingslanden samen is een significant positief volume-effect nog onzekerder dan voor een individueel land vanwege onderlinge concurrentie om buitenlandse investeringen. Daarom kan worden geconcludeerd dat het tariefeffect dominant is. In 2007 ontvingen Nederlandse BFI's meer dan €5 miljard aan dividenden uit lage en middeninkomenslanden, waarvan zij bijna €3 miljard weer doorsluisden naar buitenlandse moeders. Deze cijfers impliceren dat zelfs een klein tariefeffect, bijvoorbeeld een 3 procentpunt lagere bronbelasting op deze dividendstromen, de belastingopbrengsten substantieel kan verminderen.

**BFI's faciliteren ontwijking van bronbelasting op rente, wat schuldratio's verhoogt**

Sommige multinationale ondernemingen laten ook rentebetalingen via Nederlandse BFI's lopen om bronbelastingen te ontwijken. Met behulp van geanonimiseerde microdata laat hoofdstuk 5 zien dat BFI's in 2007 meer dan €450 miljard hadden doorgeleend aan buitenlandse entiteiten binnen hetzelfde concern. De bron van deze financieringen bestond voor ruwweg €250 miljard uit schuldpapier (obligaties) uitgegeven door de BFI's, voor €150 miljard uit groepsleningen en voor €50 miljard uit leningen van derden. Doorleenactiviteiten vertegenwoordigen ongeveer 25% van het gecombineerde balanstotaal van BFI's en worden vaak gecombineerd met het doorsluizen van participaties in dochterbedrijven.

Voor ontwikkelingslanden geven marktdata aan dat bedrijven uit Indonesië en Kazachstan veruit het grootste volume aan schuldpapier via Nederland hadden uitstaan. In 2010 gaven Nederlandse BFI's €0,6 miljard aan rentebetalingen van Indonesische bedrijven door aan obligatiehouders. Vanwege het belastingverdrag tussen Indonesië en Nederland is het grootste deel van deze betalingen vrijgesteld van bronbelasting, terwijl een tarief van 10% tot 20% van toepassing is op rente die rechtstreeks vanuit Indonesië wordt betaald aan externe schuldeisers in bijna alle andere landen. Voor Kazachstan bevat het Nederlandse verdrag geen lager tarief dan andere belastingverdragen. Rentebetalingen uit ontwikkelingslanden die worden doorgesluisd binnen de groep zijn kleiner dan de rente die wordt doorgegeven aan externe schuldeisers. Het voornaamste tariefeffect van het doorsluizen van rente via BFI's is dus een substantiële verlaging van Indonesische bronbelastingopbrengsten.

Schuldfinanciering via BFI's heeft ook een verschuivingseffect. Op groepsniveau (voor concerns als geheel) kunnen lagere leenkosten leiden tot relatief meer schuldfinanciering. Op het niveau van dochterbedrijven kunnen multinationale ondernemingen schuiven met leningen en BFI's gebruiken om rentebetalingen door te geven aan laagbelaste entiteiten, zodat de schuldfinanciering van normale dochterbedrijven toeneemt. Hoofdstuk 4 onderzoekt deze effecten. Voor een analyse van verschuivingseffecten op het niveau van dochterbedrijven zijn financiële data nodig die niet direct beschikbaar zijn uit ontwikkelingslanden. Daarom kijkt de analyse naar de financieringsstructuur van EU-concerns en hun dochterbedrijven in de EU.

Econometrische analyse laat zien dat op groepsniveau schulduitgifte via Nederlandse BFI's is gerelateerd aan significant hogere schulden. Controlerend voor relevante groepskarakteristieken hebben EU-concerns met een Nederlandse schulduitgevende BFI gemiddeld een tien procentpunt hogere verhouding tussen schuld en eigen vermogen plus schuld. Dit grote effect kan het gevolg zijn van verschillen in de mate van agressieve belastingplanning; bedrijven met een agressievere belastingstrategie gebruiken mogelijk meer schuldfinanciering en zullen meer geneigd zijn om bronbelastingen te ontwijken via Nederlandse BFI's. Andere typen Nederlandse BFI's hebben echter geen significant effect op de financieringsverhouding op groepsniveau. Dit bevestigt dat hogere schuldfinanciering wordt faciliteerd door schulduitgifte via BFI's.

Op het niveau van dochterbedrijven levert de analyse drie belangrijke resultaten op. Ten eerste hebben de dochterbedrijven van grotere concerns relatief meer schulden. Ten tweede bestaat er een positief verband tussen het gebruik van een Nederlandse groepsleningen-BFI en de schuldhefboom van dochterbedrijven, terwijl dat niet het geval is voor andere typen Nederlandse BFI's. Ten derde is de schuldhefboom van dochters van grote multinationale ondernemingen relatief ongevoelig voor het belastingtarief in het vestigingsland. Samen suggereren deze resultaten dat grote concerns meer geneigd zijn om winsten van dochters in EU-landen te verplaatsen naar

speciale laagbelaste entiteiten en dat dit deels wordt gefaciliteerd door Nederlandse groepsleningen-BFI's.

Kortom, zowel externe schulden als groepsleningen die worden doorgegeven via Nederlandse BFI's gaan gepaard met verschuivingseffecten. Wat betreft externe schulden betekent dit een additioneel verlies aan belastingopbrengsten voor Indonesië vanwege de hoge schulduitgifte via Nederland. Het verschuivingseffect voor groepsleningen is relatief klein; in 2007 sluisden Nederlandse BFI's maar €0,2 miljard aan rentebetalingen uit ontwikkelingslanden door naar laagbelaste entiteiten.

**Royaltystructuren met Nederlandse BFI's faciliteren winstverschuiving**

Advance pricing agreements tussen BFI's en de Nederlandse belastingdienst die een alternatieve belastinggrondslag bepalen, faciliteren mogelijk winstverschuiving naar Nederland via royaltybetalingen of andere soorten transacties. Hoofdstuk 5 beschrijft dat BFI's in 2007 ongeveer €0,3 miljard aan royalty-inkomsten uit ontwikkelingslanden ontvingen die niet werden doorgesluisd. Bij in ieder geval een deel van deze stromen is sprake van winstverschuiving naar Nederland. Royaltybetalingen uit ontwikkelingslanden die werden doorgegeven via BFI's bedroegen maar €0,1 miljard en waren dus relatief beperkt. Voor ontwikkelingslanden hebben royaltystructuren met Nederlandse BFI's daarom vooral een verschuivingseffect, dat de belastinggrondslag in vestigingslanden vermindert.

**Conclusie: Nederlands belastingbeleid heeft onwenselijke effecten op bepaalde ontwikkelingslanden**

Hoofdstuk 6 concludeert dat verschillende aspecten van Nederlands belastingbeleid voor ondernemingen negatieve effecten kunnen hebben op belastingopbrengsten in ontwikkelingslanden. Een cruciaal aspect betreft Nederlandse belastingverdragen met ontwikkelingslanden die relatief grote verlagingen van bronbelastingen bewerkstelligen, zonder effectieve antimisbruikbepalingen. Vanwege verschillen tussen belastingverdragen en tussen bronbelastingregimes van verdragspartners heeft Nederlands belastingbeleid op sommige landen een groter effect dan op andere. De effecten op belastingopbrengsten zijn als onwenselijk te beschouwen omdat deze incoherent zijn met de doelen van Nederlands ontwikkelingsbeleid en strijdig zijn met de belangen van ontwikkelingslanden.

Strategieën voor belastingontwijking die worden gefaciliteerd door Nederlands belastingbeleid voor ondernemingen hebben niet alleen invloed op opbrengsten, maar ook op de andere functies van belastingen: herverdeling, vertegenwoordiging en prijssturing. Op internationaal niveau leidt belastingontwijking tot herverdeling van ontwikkelingslanden naar Nederland en andere hoge inkomenslanden. Herverdelingseffecten op nationaal niveau hangen af van de binnenlandse belastingsystemen van ontwikkelingslanden. Wat betreft vertegenwoordiging kan belastingontwijking door multinationale ondernemingen de algemene belastingmoraal

verzwakken en constructieve onderhandelingen over overheidsfinanciën belemmeren. Tot slot is een belangrijk prijssturingseffect dat belastingontwijking de concurrentie verstoort tussen grote bedrijven die gebruik kunnen maken van internationale belastingarbitrage en kleinere bedrijven die dat niet kunnen. Hierdoor neemt de marktefficiëntie af. Deze negatieve effecten op bredere economische ontwikkeling zijn moeilijk te kwantificeren, maar kunnen minstens zo belangrijk zijn als het rechtstreekse effect op belastingopbrengsten.

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# 1 General introduction

## 1.1 Motivation to study effects of Dutch tax policy on developing countries

Governments of developing countries need sustainable sources of finance for development. For some developing countries, foreign aid and debt are substantial sources of finance for public expenditures. However, developing countries will also need to enhance domestic revenue mobilisation. This implies a need to raise tax revenues.

Countries are faced with various challenges to raise tax revenues. Some of these challenges are domestic, such as insufficient capacity of tax administrations, large informal sectors, and ineffective tax policies. Other challenges have an international character, such as tax competition with other developing countries to attract Foreign Direct Investment (FDI), evasion of personal income tax on assets held in tax havens, and corporate tax avoidance. International tax evasion and avoidance have a particular dimension that other challenges do not have. In many cases, these result from strategies that involve assets or legal entities in high income donor countries. Therefore these high income countries can help to address constraints to domestic revenue mobilisation in developing countries.

This thesis focuses on international constraints to domestic revenue mobilisation that result from the Dutch corporate tax system. The Netherlands is not a secrecy jurisdiction and does not facilitate evasion of personal income tax. However, the Dutch tax system offers opportunities for firms to avoid taxes in other countries. Multinational enterprises make use of these opportunities on a very large scale. As a consequence, approximately 9% of the combined inward FDI stock in all developing countries, excluding China, is being held via the Netherlands.[1] From a policy perspective, this makes it relevant to investigate the consequences of Dutch corporate tax policy for developing countries.

The Dutch tax system affects corporate tax revenues in many other countries, not just in developing countries. In absolute terms, by far the largest impact is on tax revenues in the United States and some European countries. However, for some developing countries, especially those that have a tax treaty with the Netherlands,[2] the impacts are also material. The impacts on tax revenues in some least developed countries may be more limited, as Dutch tax policy will be less relevant to countries with insignificant foreign investment.

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[1] Approximately €170 billion of FDI held via the Netherlands, based on the difference between Dutch outward FDI including Special Purpose Entities (SPEs) from IMF (2012a) and excluding SPEs from OECD (2012b), divided by approximately €1,900 of total inward FDI based on IMF (2012a) and UNCTAD (2011). China is excluded because it is a very large host country and FDI in China passes often through other SPEs, in Hong Kong. See Chapters 3 and 5 for more details about FDI in developing countries via Dutch SPEs.

[2] See page 208 for a list of all Dutch tax treaties.

This thesis therefore aims to build a bridge between development studies and studies on corporate taxation. With a few exceptions, there is little connection between these two fields of research so far. Related development research covers the relationship between tax and governance (Bräutigam et al., 2008; Everest-Philips, 2008; Moore, 2007; Prichard, 2010), tax and aid (Bulíř & Hamann, 2006; Moss et al., 2006; Ruben & Pop, 2009), and tax systems of in developing countries in general (Bird & Zolt, 2008; Cobham, 2005b; IMF, 2011; McKinley & Kyrili, 2009; Tanzi & Zee, 2000). There exists also a large body of research on tax systems in particular regions or individual developing countries. Most of these studies do not discuss taxation of multinational enterprises separately and have little to say about tax treaties or withholding taxes. To a large extent, this may be due to a lack of data. Statistics on different types of tax revenues in developing countries are difficult to accede and disaggregated data by type of business taxation, such as corporate income tax, capital gains tax and withholding tax, are hardly available.

Earlier studies focussing on international aspects analyse tax incentives and competition for FDI (Easson, 2004; Goodspeed et al., 2011; Klemm & Van Parys, 2012; Nassar, 2008) and revenue effects of trade liberalisation (Agbeyegbe et al., 2004; Braunsgaard & Keen, 2005; Caliari, 2008; Cobham, 2007). There exists also a range of empirical studies on the relationship between tax treaties and FDI and some of these studies pay special attention to developing countries (Barthel, Busse, & Neumayer, 2010; Hines, 2001; Neumayer, 2007; Siegmann, 2007). The studies on tax treaties come closest to the subject of this thesis. However, unlike this thesis, those studies do not consider potentially unintended uses and adverse effects of tax treaties on tax revenues in the developing host countries.

There also exists a well-established area of economic research regarding corporate tax planning. This research includes many empirical studies on international tax avoidance strategies, such as debt shifting, using micro data from multinational enterprises (Büttner & Wamser, 2007; Desai et al., 2003; Grubert, 1998; Hines, 1999; Huizinga et al., 2008; Ruf, 2008). However, these studies mostly do not pay special attention to developing countries. Again, data availability is a key constraint. Comprehensive micro data are available for corporate entities in Europe and for the worldwide subsidiaries of multinationals from a few high income countries, notably from the US and Germany. Remarkably, even studies that use a dataset with worldwide subsidiaries sometimes struggle to include developing countries in the analysis due to unavailability of macroeconomic control variables (Mintz & Weichenrieder, 2005). The research on corporate tax planning is still largely disconnected from development research. Only a case study of Mongolia, in a recent IMF technical assistance report, specifically analyses potential adverse impacts of corporate tax planning for a developing country (IMF, 2012b).

As a consequence, many development scholars may be unfamiliar with the effect of tax systems in high income countries on corporate tax revenues in developing countries.

Furthermore, taxation of multinational enterprises is a rather specific aspect of the overall design and functioning of a developing country's tax system. The relevance of foreign tax systems, and of the Dutch tax system in particular, for development policy may therefore not be immediately apparent. Nonetheless, the revenue impacts for developing countries can be substantial. This thesis provides further insights into those impacts and the underlying mechanisms.

The remainder of this introduction addresses the following issues. Section 1.2 analyses why taxation is essential for development and describes the different purposes of taxation. Section 1.3 analyses the level and composition of tax revenues in developing countries, with a focus on corporate tax revenues, and discusses the rationale for withholding taxes. Section 1.4 reviews the challenges and constraints for raising corporate tax revenues in developing countries and discusses coherence of donor policies in relation to domestic resource mobilisation. Section 1.5 explains the research design and structure of this thesis.

## 1.2 The development imperative for taxation

### 1.2.1 Tax and development in historical perspective

Developing country governments require sustainable sources of finance for development. Although this may sound obvious, to some extent, this is in fact a relatively new perspective on development financing. Historically, development assistance has been mainly focussed on foreign grants and public sector loans as sources of finance. However, the importance of these sources has declined over time. In 1960, Official Development Assistance (ODA) to developing countries, consisting of grants and loans on concessional terms, was approximately 0.50% of donor countries' Gross National Product (GNP). In 1970, member countries of the Organisation for Economic Cooperation and Development (OECD) committed to increase ODA to 0.7% of their GNP. However, instead of rising, the share of ODA fell to 0.35% in 1985. Moreover, during the cold war, a large part of bilateral aid was provided for political reasons and not closely linked to development policies. After the end of the cold war, ODA further decreased to 0.25% of donor countries' GNP by 1996 (Todaro, 2000). In 2002, the governmental Financing for Development conference in Monterrey resulted in renewed donor commitments and ODA to Least Developed Countries (LDCs) increased substantially for one year, but did not rise further and remained volatile, as donors failed to fulfil their commitments (United Nations, 2010; Weeks, 2010). Similarly, the 2005 G8 summit in Gleneagles produced a temporary increase in debt relief, but in 2006 and 2007 total ODA decreased again in absolute terms (United Nations, 2010). Thus, even without considering aid dependency and governance issues, these patterns show that ODA is not a reliable or sustainable source of development financing.

The decrease of new concessional loans in the period 1974-1979 went together with a strong increase in lending to developing country governments by commercial banks, on non-concessional terms and with shorter maturities. The purpose of external borrowing changed as well. Before 1974, developing country governments mainly obtained official loans to implement development projects or finance capital imports. The boom in external borrowing during the late 1970s supported broader government spending, as developing countries sought to sustain fast growth in the face of declining exports. During this financial boom, sustainability of external borrowing was not regarded as a source of concern. However, the second oil shock in 1979 caused a strong increase in interest rates and import prices for developing countries, triggering the debt crisis of the 1980s. Many developing countries were unable to meet their rising debt service obligations and the International Monetary Fund (IMF) stepped in to provide stabilisation loans, subject to strict policy conditions. The IMF's policy prescriptions were intended to generate macroeconomic stabilisation and did not have a development focus. The standard conditions included exchange rate devaluation, strong curbs on government spending, restrictions on bank lending, wage controls, and other anti-inflation measures. However, these austerity programmes often increased poverty and aggravated negative growth (Stewart, 1991). Thus, neither the commercial bank loans nor the IMF stability loans were specifically intended as a source of finance for development.

In addition, during the debt crisis of the early 1980s, foreign borrowing went hand in hand with capital flight resulting from economic uncertainty and appropriation of government funds by political elites. Already during the 1980s, researchers estimated that for several Latin American countries, capital flight equalled up to half the public debt (Wiliamson & Lessard, 1987). The World Bank identified overvalued exchange rates and high inflation as the main causes of capital flight (World Bank, 1985), suggesting that the adjustment programmes were an adequate policy response to this problem. Newer studies confirm that weak institutions and macro policies cause capital flight and thereby create an external financing need (Cerra et al., 2008), but they also show a debt overhang effect (Ndikumana & Boyce, 2011). This means that a rising level of public debt increases capital flight in later years. Despite the highly problematic nature of capital flight, official development policies did not specifically address its illicit component or the related tax evasion on foreign assets held abroad. This illustrates that attention for increasing development financing through tax revenues has been limited.

The stabilisation programmes that were linked to IMF support included a tax component, which formed part of the Washington consensus. This tax component consisted of three main pillars. First, governments should aim to maximise the neutrality of the tax system with regard to economic activity. This was translated into a standard prescription for a broad-based Value Added Tax (VAT), much lower rates of corporate and personal income tax, and reducing tax incentives and exemptions (Bird, 2012).

Second, governments had to refrain from using taxes for redistributive goals. Third, developing countries should realise tax revenues of approximately 15-20% of Gross Domestic Product (GDP) (Cobham, 2007). As a consequence, countries in Latin America and sub-Saharan Africa hit by the debt crisis on average increased their tax revenues from the 1970s to the 1980s, but the progress was limited. Compared to high income countries, but also to East Asia and former soviet states, revenues from corporate and especially personal income taxes remained very low (Cobham, 2005b).

The Heavily Indebted Poor Countries (HIPC) initiative, launched in 1996, was slightly different. To address the still unsustainable debt burden of developing countries with high levels of poverty, the IMF, World Bank, and creditor countries united in the Paris Club agreed to provide certain amounts of debt cancellation. This debt relief was again subject to strict conditions. Each country had to make elaborate policy commitments in a national Poverty Reduction Strategy Paper (PRSP). These PRSPs have been the subject of heavy criticism, because they still focussed too much on macroeconomic goals and too little on poverty reduction (Cheru, 2001). Often the macroeconomic policies, typically including market liberalisation and privatisation, were also inconsistent with social development goals (Cheru, 2001). Nonetheless, the PRSPs showed some diversity in tax policy reforms.

Some tax-related policy goals continued to reflect the Washington consensus, such as limiting the tax burden to a certain share of GDP (Kenya) or introducing a single rate VAT (Chad). However, several PRSPs also included tax reforms that were more development-oriented or aimed to increase government revenues to finance development. Some examples are to shift the tax burden away from the poor (Kenya), more progressive taxation (Uganda, Benin), and explicit goals to increase total tax revenues (Mozambique, Zambia). Such policies emphasise the role of tax in raising revenues and enhancing redistribution, departing form the more one-sided focus on the distortionary effects of taxes on economic activity. Thus, they reflect the emergence of a new perspective on the role of tax in development. In other programmes and advice, such as Article IV consultations and the Poverty Reduction and Growth Facility (PRGF), the IMF has continued to promote the standard tax policy prescriptions of the Washington consensus (Marshall, 2009).

Considering the failure of donors to fulfil their commitments to increase ODA levels, other forms of development cooperation beyond ODA are getting increasing attention. Some have expressed the view that donor countries should increase political support for developing countries by allowing more policy space and not imposing standard models, such as the Washington consensus, that may be inappropriate (Kalinowski, 2011). Others are exploring complementary mechanisms of public financing for development as another way to extend development cooperation beyond ODA (Addison et al., 2005; United Nations, 2012). Examples of potential alternative mechanisms, commonly referred to as innovative sources of development finance, are climate change taxes and currency transaction taxes. These would be new types of

international taxes that could generate revenues for development and at the same time promote global public goods, or at least provide minimal distortions to economic activity (United Nations, 2012). Thus, the link between tax and development could extend beyond domestic tax revenues in developing countries.

### 1.2.2 Public and private sources of development financing

Since the 1990s, sources of development finance other than grants, loans and tax revenues have received increasing attention. A new phase of economic globalisation took off in this period. FDI in low and middle income countries strongly increased, even while it was initially highly concentrated in the largest emerging economies (Botchwey, 2003). In 1997, approximately 60% of FDI inflows to developing countries went to China, Brazil, Mexico, Indonesia and Poland (Todaro, 2000). International trade also increased, in part due to economic liberalisation. FDI and international trade were major themes in the 2002 Financing for Development conference in Monterrey and the 2008 conference in Doha. Migrant remittances could be added to this list of alternative sources. The volume of registered remittances to developing countries has grown from USD 81 billion in 2000 to approximately USD 325 billion in 2010. Taking into account unrecorded flows, total remittances are still significantly larger. They have become the third largest source of external finance for developing countries, after export earnings and FDI, and represent more than twice the amount of official development aid received (World Bank, 2011b). Remittances are also strongly concentrated, though. In 2010, over 50% of recorded migrant remittances to developing countries were sent to India, China, Mexico, Nigeria and the Philippines (World Bank, 2011a).

Figure 1.1 shows various domestic and external sources of financing for development as a proportion of GDP around 1997 and 2007. The figure distinguishes three groups of countries on the basis of World Bank income categories.[3]

The first two sources of financing, tax revenues and ODA, are the main funding sources for public expenditures and public investments.[4] In upper-middle income countries, ODA is insignificant. In the group of lower-middle income countries, on average the contribution of ODA to public financing dropped from 7% to 5% of GDP, but this was compensated by increasing tax revenues. As a consequence, the sum of tax revenues and ODA increased slightly from 24% to 25% of GDP. For low income countries, net ODA receipts reached a low point in 2000, then peaked in 2003, and by

[3] The figure excludes countries with government revenues from natural resources higher than 10% of GDP in 2006-2008. In addition, Swaziland and Lesotho are excluded because of their unusually high government revenues from Southern African Development Community (SADC) tariff revenue allocations. Throughout this chapter, the analysis uses fixed country groups based on World Bank income classifications from 2012. Thus, developments over time in the various graphs are not influenced by reclassifications of countries.

[4] Other external financing for public goods and services, such as official flows other than ODA and grants from private development organisations, are relatively small compared to ODA and tax revenues. See OECD (2012a).

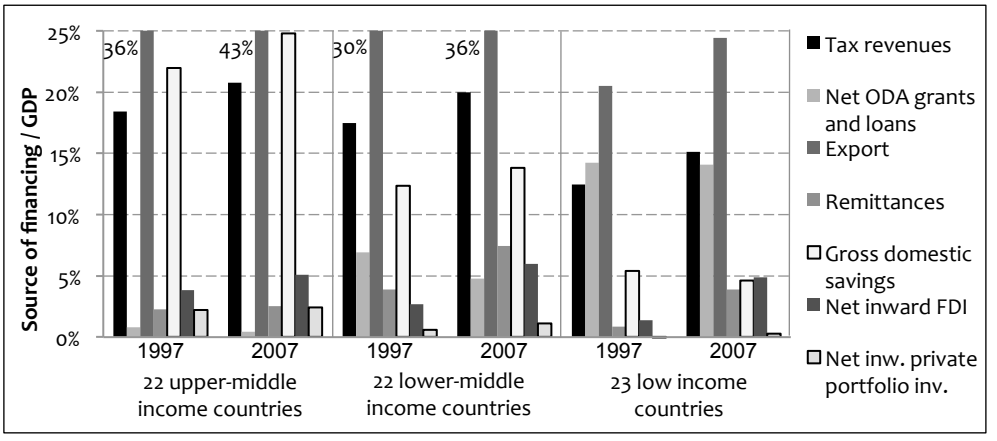


**Figure 1.1** Domestic and external sources of financing for development by country group

Notes: unweighted averages per country group for the periods 1996-1998 and 2006-2008; exports exclude 7 countries due to missing data; private portfolio investment includes bank loans. Sources: tax revenues for African countries from OECD and AfDB (2010); tax revenues for Latin American countries except Nicaragua from OECD (2012d); remittances from World Bank (2011a) if available; all other data from World Bank (2012).

2007 ODA receipts had fallen again to approximately 14% of GDP, the same level as in 1997. Tax revenues, by contrast, rose steadily from 12% to 15% of GDP. Thus, while lower-middle income countries have been gradually replacing external development assistance with domestic resources, in low income countries tax revenues increased as well but ODA continues to be a highly important source of public financing.

The next two sources shown in the figure, export earnings and remittances, are private sources of foreign income, resulting from trade and migration. Exports are by far the largest source of financing in all country groups and periods and increased considerably since 1997. Remittances are especially important for lower-middle income countries,[5] but remittances to low income countries have also increased strongly.

Finally, domestic savings, FDI and portfolio investments are three potential sources of financing for private investment. Gross domestic savings differ markedly between the country groups. In upper-middle income countries, domestic savings are relatively high and much larger than FDI and portfolio investment. Private investment in these countries is unlikely to be constrained by savings (Rodrik & Subramanian, 2009).[6] In lower-middle income countries, domestic savings are on average much lower and FDI has become an important complementary source of funding. In low income countries,

[5] Out of the 22 lower-middle income countries in the figure, seven countries received remittances over 10% of GDP in the period 2006-2008. These were Cape Verde, El Salvador, Guatemala, Moldova, Nicaragua, the Philippines and Senegal.

[6] FDI and domestic savings are no perfect substitutes, though. FDI can be qualitatively different, for example if it involves transfer of skills and technology.

domestic savings are still lower, on average a mere 5% of GDP. In some of these countries, notably Burundi and the Kyrgyz Republic, gross domestic savings have been substantially negative since at least 2004. FDI to low income countries has strongly increased and on average FDI inflows around 2007 were also 5% of GDP, as large as domestic savings. Portfolio investments to all three country groups are on average much smaller than FDI.[7]

Note that net portfolio investment in developing countries reached an all-time high in 2007 and net inward FDI peaked in 2008. After that, both types of foreign investment sharply declined. Figure 1.1 therefore shows foreign investment at its peak. Portfolio investment to developing countries reached a peak in 1997 as well, just before the Asian crisis hit. However, the three-year average data shown in the figure also include flows in 1998, when portfolio investments to Thailand and Indonesia had turned substantially negative due to withdrawals of previous investments. ODA has also been volatile, as noted above, but less so than foreign investment. Domestic tax revenues and migrant remittances from abroad, by contrast, have been relatively stable over time.

There exist important differences between public sector financing and private commercial flows. Figure 1.1 shows public as well as private flows. The former can be used directly to finance public services, such as education, health care, sanitation, and basic infrastructure, which are essential for social development.[8] Private flows can stimulate investment and economic growth, but they support public services only in an indirect way. Moreover, in some cases policies to increase private flows may conflict with public revenue generation. Tax incentives for FDI show that a large trade-off can exist.[9] When such tax incentives do not increase total investment or investors restructure their investments to obtain incentives that were not intended for them, tax incentives can actually reduce total government revenues. Thus, sources of financing for economic development are not quite the same as sources of financing for public services.

The experience of the HIPC initiative illustrates that the public and private sector are not always accurately distinguished. Many low income African countries are in fact net

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[7] Data on portfolio investments are not complete, though, and may underestimate the total volume of net inward investments. Furthermore, some multinationals based in developing countries issue debt securities via foreign subsidiaries located in, for example, the Netherlands or Singapore. The foreign subsidiaries often lend the issuance proceeds onwards to their own parent companies. These reverse loans are recorded as negative outward FDI instead of positive inward portfolio investment. See chapter 5 for more details.

[8] Some forms of ODA, such as technical assistance and project support, cannot be directed to such public services by developing country governments themselves.

[9] In this case, the trade-off is between corporate tax revenues and expenditures to facilitate foreign investments on the one hand and FDI inflows on the other hand. The trade-off depends on the importance of tax incentives to foreign investors. If taxes are not one of the main factors for location decisions, which is usually the case (Bols et al., 2001; Goodspeed et al., 2011; James, 2009; Muller et al., 2004), then a government may need to offer relatively large tax incentives to a broad group of foreign investors in order to attract additional investments. More generally, at the margin, any tax that generates economic disincentives usually involves a trade-off between additional public revenue and additional private economic activity.

creditors to the rest of the world; their governments are heavily indebted, but the private foreign wealth of a small elite exceeds the public debt (Boyce & Ndikumana, 2001). The African Economic Outlook 2010 explicitly distinguishes the private and public component of development financing and emphasises the importance of equitable and efficient tax systems to finance public expenditures (OECD & AfDB, 2010). This thesis focuses on the structure of tax systems and hence on the public component of domestic resource mobilisation.

### 1.2.3 Tax, aid and governance

Developing countries need to replace foreign grants and loans with domestic tax revenues because the former are not a reliable long-term source development financing, as argued above. Moreover, many developing countries have made considerable progress in reducing poverty over the past decades and have experienced strong economic growth. As countries become less poor, they become less eligible for aid. By 2012, 49 countries are classified as LDCs. By definition, poverty in these countries is widespread and severe, they have a low level of economic development and are vulnerable to external shocks. In the 1990s, most poor people lived in low income countries. However, this has changed and currently most poor people live in lower-middle income countries. The main reason for this development is that India, China, Nigeria, Indonesia, and Pakistan have achieved lower-middle income status between 1999 and 2008. Over 900 million poor people live in these five countries (Sumner, 2010). Countries like India and Indonesia have quickly growing economies, high inward FDI, and large national firms and home-based multinationals. This means that development has increasingly become an issue of inequality, not just at the international level, but also and mainly at the national level. Accordingly, development financing is shifting from external aid to domestic resource mobilisation and redistribution.

However, there exist other and more pervasive reasons why developing countries should reduce dependence on foreign aid and increase domestic tax revenues. Tax and aid have very different qualities and therefore different impacts on economic growth and institutions.

First, aid flows are often more volatile and unpredictable. The erratic behaviour of aid flows limits their potential positive impact (Bulíř & Hamann, 2006; Lensink & Morrissey, 2000; Weeks, 2010).

Second, aid may result in rent-seeking behaviour by political elites. As development assistance has shifted from project aid to budget support, opportunities for rent seeking may have increased. Empirical research therefore finds that foreign aid has a negative impact on institutions, similar to the resource curse of natural resource revenues (Djankov et al., 2008).

Third, development aid fosters accountability to external donors but limits the pressure on governments to legitimate their actions to the population (Moss et al., 2006). By contrast, taxation is a catalyst for the establishment of governments that are more

responsive and accountable towards their own citizens (OECD, 2010). It also stimulates the development of civil society organisations that advocate responsible use of public funds. This is a very important difference. If a government depends on public support, taxation is likely to drive revenue bargaining. Revenue bargaining means that tax payers interact with the government to keep taxes at a socially acceptable level and try to hold the government to account for the use of public resources and delivery of public goods and services. This process is a main element for building a functional state (Moore, 2008; Prichard, 2010). In most countries, the focus of revenue bargaining is on the expenditure side rather than the revenue side, with citizens demanding more efficient and responsible use of government funds.

Fourth, and linked to the previous point, bilateral and multilateral aid usually involves aid conditionality. To some extent, conditionality has shifted from policy conditions to institutional reforms that have a broader and more permanent positive effect on development (Adam & O'Connell, 1999). However, in many cases aid conditionality still limits macroeconomic policy options for developing countries and this may hinder sound development policies (Weeks, 2010).

Fifth, some aid is diverted directly or indirectly to finance capital flight (Serieux, 2011). Although this may also apply to government revenues from oil and other natural resources, transparent tax revenues do not produce this adverse effect. These five reasons make tax revenues a key component of finance for development.

Research shows that aid also has an effect on taxation. In theory, the effect can be either positive or negative. Regarding positive effects, aid can stimulate economic growth and thereby raise tax revenues. Aid may also support domestic resource mobilisation if it aims to enhance domestic institutions and strengthen fiscal administration (Serieux, 2011). Furthermore, aid can be used to finance imports and therefore increase trade tax revenues (Benedek et al., 2012). A positive relationship between aid and taxation may also result from other factors, such as good governance, that increase both tax revenues and external aid. Aid will not have a positive effect if it is captured by political elites and used for unproductive purposes, so it does not generate economic activities that yield tax revenues. Moreover, a negative effect can occur if aid reduces incentives for domestic revenue mobilisation
(Andreoni, 1993; Heijdra et al., 1998).

Some empirical studies find a positive relationship between aid and taxation (Gambaro et al., 2007; Khan & Hishino, 1992); others find that grants reduce the revenue effort (Gupta et al., 2003). A newer study, using extended panel data and distinguishing between different types of aid and taxes, finds a robust positive effect. Bilateral aid and grants have a stronger effect than multilateral aid and loans. The positive relationship is also stronger for middle income than for low income countries. Moreover, the results suggest that the introduction of budget support in the late 1990s stimulated domestic revenue mobilisation (Ruben & Pop, 2009). However, another recent study using similar panel data finds a negative effect. This overall effect is small

and decreasing over time, but in countries with weak institutions, the study finds that an increase in donor grants is associated with a decrease in tax revenues of a similar magnitude (Benedek et al., 2012).

Thus, tax revenues are to be considered as a more sustainable source of financing for development and generally have a more positive impact on developing country governance. Well-designed development aid can also help to strengthen taxation, but the general effect of aid on tax revenues remains contested.

### 1.2.4 A developmental perspective for analysing revenue mobilisation

Taxation performs several other roles in addition to generating public revenues. Traditionally, and especially from a neoclassical economic perspective, academic analysis has emphasised the trade-off between revenues on the one hand and economic disincentives and market distortions on the other hand. Development studies increasingly pay attention the relationship between tax and governance. In environmental economics, the focus is on environmental taxes and tax exemptions as policy instruments. Combining such different elements yields a broader framework for analysis of tax policy.

Cobham (2005b) summarizes the different roles or purposes of taxation as Revenue, Representation, Redistribution and Re-pricing. Revenues from taxation obviously serve to fund government expenditures, but the total level of tax revenues can also be an instrument for countercyclical macroeconomic policy. The current financial crisis emphasises the importance of stable economic development, which requires sufficient policy space for developing countries to adjust their fiscal balance (Weeks, 2010). Representation refers to governance; tax can foster representation because citizens will demand greater influence on government spending when it is funded by taxes. Redistribution can be implemented on purpose through progressive income taxes. Especially in lower income countries, a progressive tax system can mitigate income inequality. However, it should be recognised that all types of taxes can have distributional impacts. Re-pricing refers primarily to incentives resulting from taxes on specific goods or activities with negative externalities, such as excises, or fiscal incentives for activities with positive spill-over effects. Obviously, in practice tax exemptions are not always linked to positive externalities and may also serve special interests. For a more complete framework of analysis, it makes sense to include general disincentives to economic activity and market distortions due to unintended differences in tax treatment under re-pricing as well.

The resulting framework is summarised in Table 1.1. Parts of this framework can also be found in other studies. For example, Tanzi and Zee (2000) assess tax systems in developing countries on three of the above elements: sufficient revenues, equity (redistribution), and minimal disincentives to economic activity (re-pricing). This analytical framework may be helpful to understand the different properties of various types of taxes.

**Table 1.1** Four main purposes of taxation

| Purpose | Description |
|---|---|
| Revenue | Generating sufficient revenues for the government to fund public goods and services, investment, administration, and debt service; dampening economic cycles through countercyclical movements in the tax burden |
| Redistribution | Enhancing equality through progressive taxation, reducing tax incidence on people with lower ability-to-pay |
| Representation | Fostering inclusion of citizens in political processes and good governance, supporting the implicit social contract and legitimacy of the state |
| Re-pricing | Providing targeted tax incentives to stimulate certain activities (or disincentives to discourage certain activities); minimising market distortions and general disincentives to economic activity |

Source: Based on Cobham (2005b).

Tax revenues from natural resources mainly generate public funds. The impact on governance is a by-effect and usually negative, although there also exist countries with large resource rents and good governance like Botswana.

Taxes on personal and corporate income tend to have the strongest positive effect on governance because taxpayers are well aware of how much tax they contribute and make use of public goods and services, such as infrastructure and education (OECD, 2010). The main disadvantage of income taxes is that they provide a relatively strong disincentive to economic activity. To some extent, income taxes can easily be made progressive and this also mitigates disincentives to work or start a business (in the formal sector).

Taxes on personal wealth and property, such as real estate and land, have an even stronger redistributive impact because the distribution of wealth is generally more unequal than the distribution of income. Moreover, these taxes have a limited impact on direct economic activity. Property and wealth taxes are less established in low and middle income countries, so there is considerable potential for increasing their use. Taxes on certain types of property are relatively easy to collect if a domestic registration system is in place. This is not the case for taxes on financial wealth, which can be held offshore.

Indirect taxes, which include consumption and trade taxes, have a weaker impact on governance. However, indirect taxes often have strong re-pricing and inflationary effects. Excises raise the price of goods on which they are levied compared to other goods and import tariffs raise prices of imports compared to domestic production. The properties of VAT and sales taxes depend very much on their design. A uniform rate on all goods and services is regressive and disproportionally hits poor households that buy goods produced in the formal economy, because the poorest households spend the largest part of their income on immediate consumption. For this reason, human rights groups have been campaigning heavily against a uniform 15% VAT in Bangladesh that

was proposed in 2010 to meet policy conditions for IMF support. Such a VAT would substantially increase government revenues, but at the expense of higher inequality and increased poverty. This illustrates that IMF conditionality for tax policy is still questionable from a development perspective. A VAT or sales tax that exempts basic food items and other goods that account for a large share of consumption of poor households has a very different impact. Although it still affects the poor, the loss in purchasing power is smaller and the distributional effect of the tax can be slightly progressive (Newhouse & Zakharova, 2007; Refaqat, 2003).

Until recently, environmental taxes had been virtually absent from the development agenda. One reason is that these taxes are not the easiest ones to administer and require a relatively developed tax authority. However, these taxes have two important advantages. First, their re-pricing effect is to discourage economic activities that produce relatively large negative environmental externalities. Thus, they do not generate undesirable disincentives to economic activity. Second, they may have a neutral or progressive distributional impact. The German development agency GIZ, which is a key provider of technical assistance for tax policy and administration, has started to advise some developing countries on the introduction of environmental taxes. In some member countries of the European Union (EU), environmental tax revenues are 3-4% of GDP, which illustrates that they can be a substantial source of revenues (European Commission, 2012).

This thesis focuses on corporate taxes for large multinational firms. Corporate taxes are an important source of revenues for many developing countries. In general, corporate taxes are important for government accountability because they are one of the most visible types of tax. For large firms, though, the main institutional effect may result from public perceptions about the firms' tax behaviour. If it is perceived that large taxpayers are not paying their fair share, this may lower tax compliance by others (Torgler et al., 2007) and undermine constructive involvement of citizens in revenue bargaining.

## 1.3 Description of tax systems in developing countries

### 1.3.1 Level and composition of tax revenues

Developing countries differ greatly from high income countries with regard to the level and composition of domestic revenues. Total tax revenues in developing countries are generally lower, in the range of 10-25% of GDP, compared to 25-40% for high income countries. Consumption taxes, which include VAT and excises, have become a major component of tax revenues in most countries. In most developing countries, the share of import tariffs and export levies in total revenues is still substantial. Personal income taxes and social security contributions are typically low, in part because of large informal sectors and weak tax administrations. As a consequence, corporate taxes account for a relatively large share of total tax revenues as well. For middle income

countries, this share is usually between 10% and 30%. By contrast, in high income countries, personal income tax and social security contributions are key components and corporate taxes form a smaller part of total tax revenues (Cobham, 2005b; IMF, 2011; Keen & Simone, 2004; Tanzi & Zee, 2000).

However, there exists considerable heterogeneity among developing countries as well. Tax systems are typically influenced by the structure of the domestic economy, the degree or urbanisation, and the political regime. This section briefly describes general developments in tax revenues for broad groups of developing countries. More detailed descriptions and analyses of tax systems in Latin America can be found in the Latin American Outlook 2009 (OECD, 2008a) and a report about underlying statistics (OECD et al., 2011). Bernardi et al. (2007) provide detailed case studies of various Latin American countries. Tax systems in Africa are described in the African Economic Outlook 2010 (OECD & AfDB, 2010) and Keen and Mansour (2009). More detailed country studies include Fjeldstad and Heggstad (2011) and Volkerink (2009). Sources for Asia are more limited; Bernardi et al. (2005) provide an analysis of tax systems in several Asian countries.

General trends show declining total tax revenues in developing countries during the 1980s and the 1990s, followed by increasing revenues during the past decade (IMF, 2011). During the 1980s and 1990s, the importance of trade revenues generally fell due to trade liberalisation while direct tax revenues increased only marginally. Reliance on consumption taxes increased, reflecting the tax consensus (Cobham, 2005b). Developments in tax composition since the 1990s have been remarkably similar (McKinley & Kyrili, 2009), with increasing pressures on corporate tax revenues because of tax competition between developing countries to attract foreign investment (Christians, 2010).

When describing the level and composition of revenues, it is useful to analyse countries with high revenues from natural resources separately. Countries with very large government revenues from oil or other natural resources tend to have different tax structures. In the analysis below, countries whose governments had revenues of more than 10% of GDP from natural resources in the years 2006-2008 are assigned to a separate country group.[10] Resource-rich countries with government revenues from natural resources below this threshold, such as Cameroon and Mauritania, have tax structures that are more similar to other countries.

Furthermore, it is useful to broadly distinguish between low income, lower-middle income, and upper-middle income countries. Despite the heterogeneity within these three groups, developments over the past decades differ markedly between the groups. The differences between income groups are more pronounced than differences between geographical regions.

[10] These countries are Algeria, Chad, Gabon, Angola, Sudan, Nigeria, Republic of Congo, Botswana, Iran, and Mongolia.

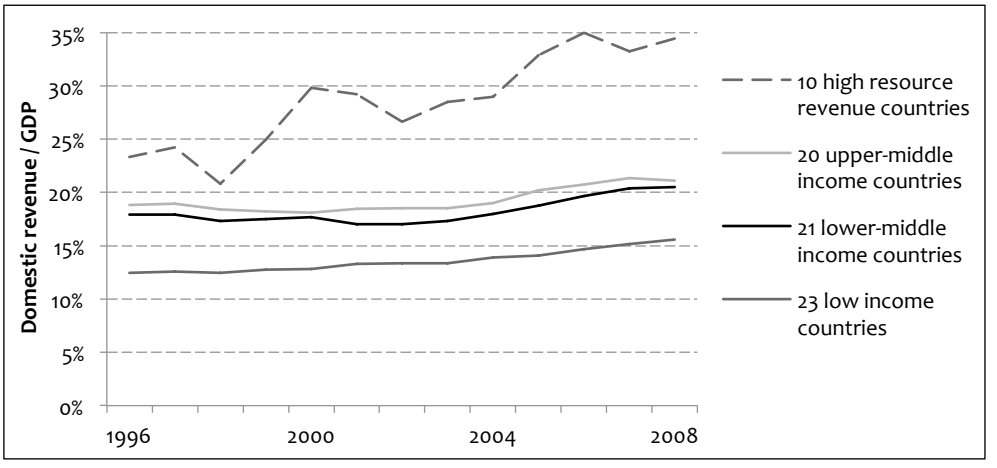


**Figure 1.2** Total domestic revenues by country group

Sources: data for African countries from OECD and AfDB (2010); data for Latin American countries except Nicaragua from OECD (2012d); data for other countries from World Bank (2012).

Data on tax revenues are available from different sources, but data consistency is a major problem. For example, the World Development Indicators (WDI) database includes revenues at the central government level only. This does not properly reflect the overall tax systems of countries with substantial revenues at lower government levels, such as Nigeria (IMF, 2011). Data are also inconsistent between databases, partly because of different definitions but often the reasons for inconsistency are unclear. The graphs below combine data from different sources to achieve a better coverage of developing countries. However, for total revenues or individual revenue components of each country, it uses the same source for different years in order to present developments over time more accurately.

Figure 1.2 shows total domestic revenues by country group over the period 1996-2008, excluding grants but including social security contributions and revenues from natural resources. Revenues have increased strongly in countries with large resource revenues, in part because of rising commodity prices. Domestic revenues in other countries have increased slowly, with much lower levels of revenues in low income countries than in middle income countries. Tax revenues in low income countries are now approximately back at the level of the 1980s (IMF, 2011). Thus, raising tax revenues requires continued attention.

Figure 1.3 shows the composition of domestic revenues for each country group at the beginning and end of the period. Direct taxes consist of taxes on personal and corporate income, wealth, and capital gains. Consumption taxes include VAT and sales taxes as well as excises. Trade revenues mainly reflect import tariffs and export taxes. Other revenues consist of social security contributions, natural resource revenues, and other domestic sources.

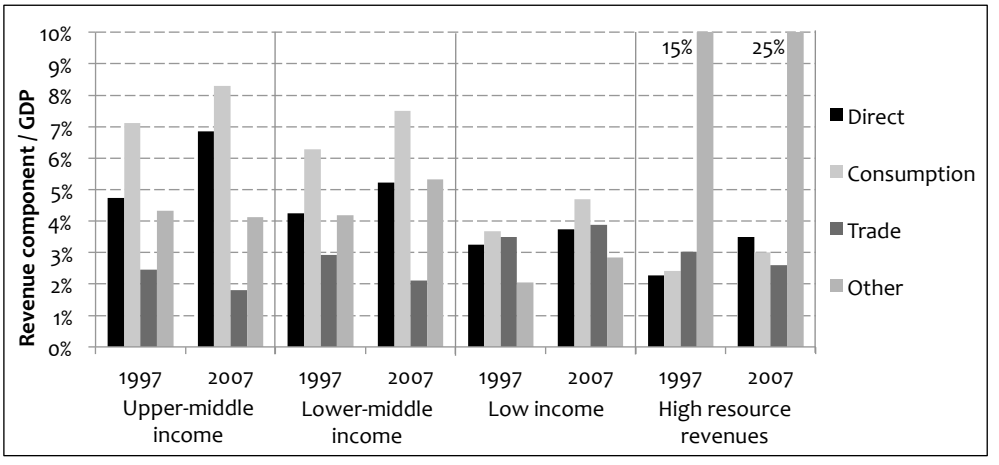


**Figure 1.3** Revenue composition in developing countries

Sources: data for African countries from OECD and AfDB (2010); data for Latin American countries except Nicaragua from OECD (2012d); data for other countries from World Bank (2012). Note: the table shows three-year averages for the periods 1996-1998 and 2006-2008.

For upper- and lower-middle income countries, the increase in total revenues is driven by a rise in both direct and consumption taxes. The main difference between upper-middle income and lower-middle income countries is that the latter continue to depend more strongly on trade taxes. In the low income country group, consumption taxes also increased substantially, but direct tax revenues increased only marginally and remained below 4% of GDP. Trade taxes were approximately a quarter of total domestic revenues in this country group. Thus, further trade liberalisation may be problematic unless low income and lower-middle income countries are able to develop alternative revenue sources (Braunsgaard & Keen, 2005; Khattry & Mohan Rao, 2002). In countries with very high resource revenues, other revenue sources are much less important.

### 1.3.2 Corporate tax revenues

This thesis focuses on corporate taxes. There is no global database that provides a breakdown of direct taxes into corporate and other types (mainly personal income tax) before 2007.[11] For various Latin American countries, data are available from the OECD. For some countries in Africa, Asia and Eastern Europe, data are available from a comparative IMF study (Abbas & Klemm, 2012), IMF country reports or national sources. The graphs below combine data from the OECD and IMF. They show corporate taxes and total domestic revenues as a share of GDP for 32 middle income countries and 3 low income countries (Kenya, Tanzania and Uganda).

[11] From 2007 onwards, corporate tax revenue data are available for many countries worldwide from the USAID Collecting Taxes database, which combines data from various sources.

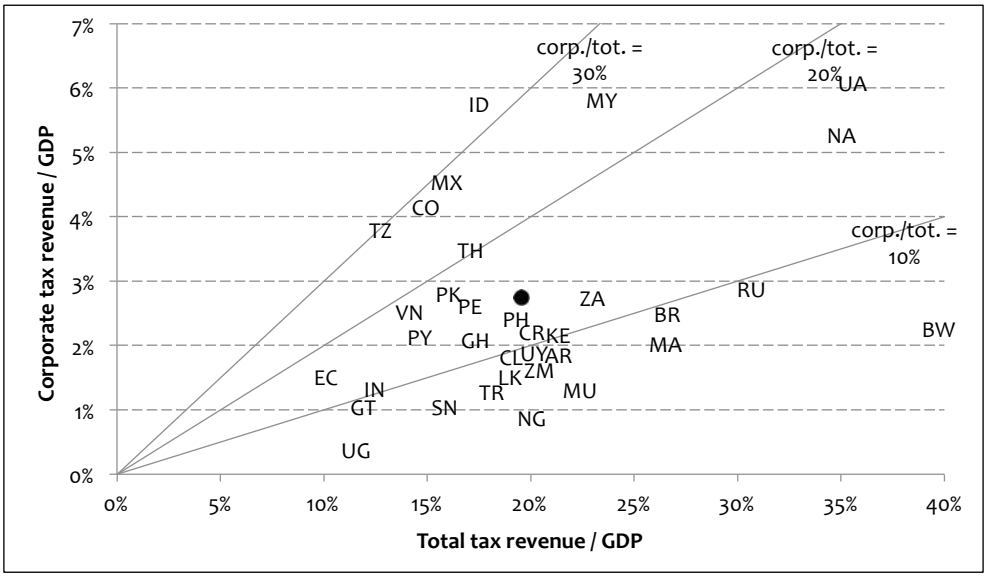


**Figure 1.4** Corporate and total tax revenues, 1997

Sources: corporate tax data for Guatemala and Venezuela from OECD (2012d), for other countries from Abbas and Klemm (2012); total tax revenue data for African countries from OECD and AfDB (2010), for Latin American countries from OECD (2012d), for Indonesia, Malaysia, the Philippines, Sri Lanka, Pakistan and India from World Bank (2012), and for Thailand, Vietnam, Turkey, Ukraine, and Russian Federation from Abbas and Klemm (2012); data for Ecuador and Russian Federation are for 1998.

Figure 1.4 shows data for 1997, at the beginning of the period that was also analysed above. Each country is indicated with its ISO-code.[12] A black dot shows the unweighted average of the 35 countries. Countries at the right hand side of the graph have relatively large total domestic revenues. For example, government revenues in Namibia (NA) and Botswana (BW) are 35-40% of GDP, in part due to high revenues form diamond mining. Countries on the left have low domestic revenues. In Ecuador (EC), Guatemala (GT), India (IN) and Uganda (UG), domestic revenues were near 10% of GDP in 1997, which is low by any standard. Many countries in the graph have total domestic revenues in the range of 15-20% of GDP.

Countries at the top have relatively high corporate tax revenues. In Indonesia (ID), Malaysia (MY) and Ukraine (UA), corporate tax revenues were approximately 6% of GDP. This is large, also compared to high income countries. Countries at the bottom have low corporate tax revenues. In Uganda, Guatemala, Senegal (SN) and Nigeria (NG), corporate tax revenues were only 1% of GDP or less. Most countries are in the lower part of the graph, with corporate tax revenues of 1-3% of GDP.

[12] See page 206 for a list of all relevant country codes. This code is also the extension for webpages.

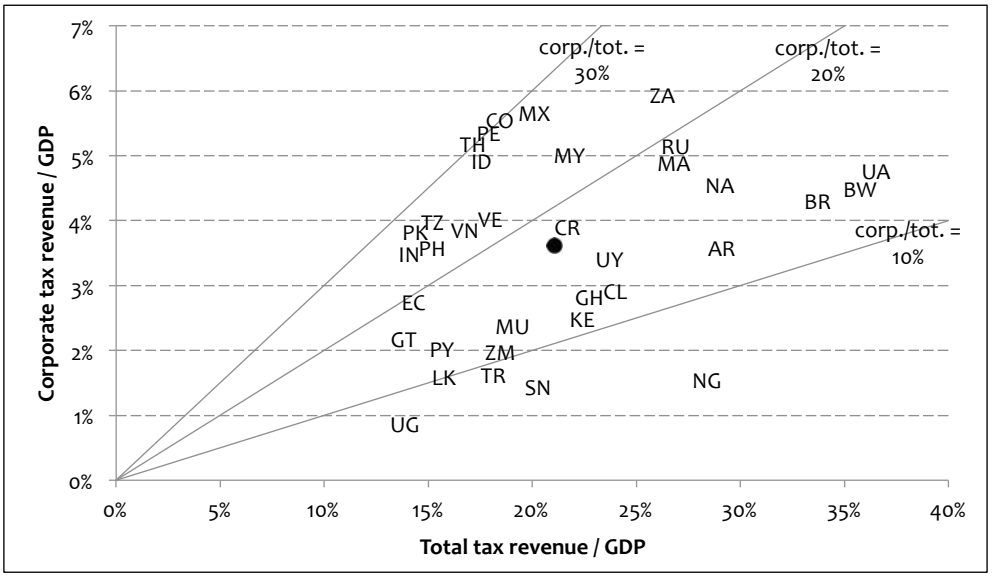


**Figure 1.5** Corporate and total tax revenues, 2007

Sources: corporate tax data for Guatemala and Venezuela from OECD (2012d), for other countries from Abbas and Klemm (2012); total tax revenue data for African countries from OECD and AfDB (2010), for Latin American countries from OECD (2012d), for Indonesia, Malaysia, the Philippines, Sri Lanka, Pakistan and India from World Bank (2012), and for Thailand, Vietnam, Turkey, Ukraine, and Russian Federation from Abbas and Klemm (2012).

Combining the two axes, countries closer to the upper left corner have a higher proportion of corporate taxes to total domestic revenues.[13] Tanzania (TZ), Colombia (CO), Mexico (MX) and Indonesia stand out as countries with corporate tax revenues around 30% of total domestic revenues. This means that corporate taxes are a very important source of revenue for these countries. Countries closer to the bottom right corner or near the bottom of the graph have a low proportion of corporate taxes. Examples are Uganda, Nigeria and Botswana. In these countries, corporate taxes were a relatively minor source of revenue in 1997.

As a reference, three lines indicate corporate tax shares of 10%, 20% and 30%. Many countries have a proportion of corporate tax revenues to total revenues near 10%. This is above the proportion in many high income countries. Thus, for many developing countries, corporate tax revenues were a material source of revenues in 1997.

Next, Figure 1.5 shows data for 2007, the latest year for which comprehensive data were available from the same sources. Three general trends can be observed. First, most countries have moved to the right, meaning their total revenues increased. This is not a

[13] Note that this graph shows lower proportions of corporate tax than Abbas and Klemm (2012). The reason is that it uses other data sources that indicate higher total domestic revenues, probably because these other sources include social security contributions and other domestic revenues that are not included in Abbas and Klemm (2012).

uniform development, though. The increase has been particularly large in the upper-middle income countries Argentina (AR) and Brazil (BR). Some lower-middle income countries, notably Ghana and Senegal, showed considerable progress as well. On the left hand side, domestic revenues in Ecuador, Guatemala, Uganda and India rose to approximately 15% of GDP, but the revenue performance of these countries remained weak compared to other developing countries and even to the target range of the tax consensus of the 1980s. In some countries, such as Indonesia and Zambia (ZM), domestic revenues stagnated, and in other countries, notably the Philippines (PH) and Sri Lanka (LK), revenues substantially decreased between 1997 and 2007. This means that raising tax revenues remains a challenge for many developing countries.

Second, most countries have move upward, meaning corporate taxes have also increased relative to GDP. Corporate tax revenues rose strongly in Morocco (MA), Peru (PE) and South Africa (ZA). However, in some countries, such as Indonesia and Malaysia, corporate tax revenues declined by approximately 1% of GDP. Overall, there exists only a weak correlation (0.24) between the change in corporate tax and total revenues over the period 1997-2007.

Third, the average proportion of corporate taxes to total revenues increased from 15% to 18%. This development has also been uneven. The relative importance on corporate taxes increased strongly in Peru, India, South Africa, the Philippines and Morocco. Countries with a declining share of corporate taxes include Indonesia and Tanzania. Nonetheless, the graph clearly shows that in 2007, many countries had a proportion in the range of 10-20% (between the first and second line) or 20-30% (between the second and the third line). This strongly contrasts with the situation in 1997. Only in a few countries, corporate taxes remained below 10% of domestic revenues.

It can be concluded that corporate taxes are an important source of domestic revenues for most developing countries. The relative importance of corporate taxes has further increased since 1997. This contrasts with high income countries, where corporate taxes are generally not a major source of revenue and declining. The importance of corporate tax revenues for developing countries implies that potential threats to these revenues, such as tax avoidance and evasion by multinational firms, are a relevant research subject in the context of financing for development.

### 1.3.3 Withholding taxes

Withholding taxes are a specific type of corporate taxes. They are levied on certain payments to foreign entities. Some countries impose withholding taxes on dividends, on interest payments, or on both. In addition, many countries have withholding taxes on royalties for the use of intellectual property, such as trademarks or patents, and a few countries levy withholding taxes on management fees. Withholding taxes are hardly mentioned in development research. However, they do play an important role in corporate taxation and are highly relevant for the impact of the Dutch tax system on

developing countries. Therefore this section discusses withholding taxes in more detail, with a focus on dividend and interest withholding tax.

Withholding taxes can be a substantial source of revenue. Unfortunately, comprehensive data on withholding tax revenues are not available from an existing dataset and many developing countries do not distinguish withholding tax revenues in national revenue statistics publications. However, some examples show that withholding tax revenues can be substantial. In 2007, withholding tax revenues were 3.0% of GDP in Brazil, 1.1% in Kenya, and 0.7% in Zambia. By comparison, corporate tax revenues excluding withholding taxes were 3.7% of GDP in Brazil, 3.3% in Kenya, and 2.7% in Zambia (Fjeldstad & Heggstad, 2011; OECD et al., 2011; Waris et al., 2011).[14] Out of the 34 countries in the graphs, only Mauritius, South Africa[15] and Egypt[16] do not have withholding taxes on interest or dividends. Eight countries impose withholding taxes on interest but not on dividends. The other 23 countries tax both interest and dividend payments to foreign entities. In 2010, the standard rates of all 34 countries were on average 17% for interest (to foreign affiliates) and 10% on dividends (to foreign controlling parents). This shows that withholding taxes are extremely relevant for many developing countries.

There are several reasons for levying withholding taxes. First, they are relatively easy to collect (Faria, 1995) because they involve international transfers, similar to trade taxes, and the basis for calculating the tax is straightforward. From a theoretical perspective, if a developing country has specific qualities that attract FDI, the government has some market power. This generates an incentive to tax profits of foreign investors (Sørensen, 2006).

Second, historically withholding taxes on payments to both foreign and domestic recipients have served to prevent tax evasion (Li, 1995). An investor that receives dividend or interest payments on securities could try to hide this income from the tax authority. If a tax on this income was already levied at the source and paid by the entity distributing the dividend or paying the interest, the tax was more difficult to evade. The recipient of the dividends or interest can usually deduct the source tax so the overall tax charge remains unaffected. To some extent, this reason still applies at the international level for payments to foreign security holders. In case an external shareholder or debt security holder is based in a tax haven, for example, withholding taxes can prevent that the dividend or interest income remains untaxed. For developing countries, the use of

[14] For Brazil, Figure 1.4 and Figure 1.5 show corporate tax revenues excluding withholding taxes. For Kenya and Zambia, the figures show corporate revenue data from Abbas and Klemm (2012), because these are available for both 1997 and 2007. For 2007, Abbas and Klemm report corporate tax revenues of 2.5% of GDP for Kenya and 2.0% for Zambia; Waris et al. (2011) and Fjeldstad and Heggstad (2011) report higher figures.

[15] For South Africa, this applies until the introduction of a dividend withholding tax on 1 April 2012.

[16] Egypt has a withholding tax of 20% on interest payments, but this does not apply on loans with a maturity of more than three years.

withholding taxes also simplifies tax collection at the domestic level (Bird & Zolt, 2011).

Third, withholding taxes allow FDI host countries, referred to as source countries (of income) in fiscal terms, to take a larger share of the total tax revenue that can be levied on certain income. Developing countries are usually net FDI recipients. Therefore withholding taxes can have a redistributive effect at the international level by increasing the share of taxes paid by multinational firms in developing countries. This generally applies to interest and royalty payments, because most countries tax interest and royalty income but grant a tax credit for withholding taxes paid abroad. Similarly, it allows developing countries to capture part of the profits distributed to foreign external shareholders (Faria, 1995). In many such situations, withholding taxes do not affect the total taxes paid by a firm and its shareholders, but they shift some of the tax revenues from the home to the host country by allocating more taxing rights to the latter. In principle, the total tax charge can increase if the withholding tax rate in the source country is higher than the income tax rate in the recipient's country, or if the recipient is a tax-exempt entity, for example a pension fund. For intra-firm interest and royalty payments, though, this is unlikely unless the affiliate receiving the income is based in a tax haven or operates under a low-tax regime.

Historically, the distributional aspect tended to be largely similar for dividends paid to foreign parents, because many countries used to tax foreign dividend income, allowing for a tax credit to offset corporate income taxes and/or dividend withholding taxes paid abroad. However, at present most countries exempt foreign dividend income from subsidiaries; the main exception is the United States. If a home country does not tax foreign dividend income, it usually does not grant a credit for foreign withholding tax paid on this income either. This may result in double taxation of dividends distributed by a foreign subsidiary that are paid out of current or retained earnings that have already been taxed. Double taxation of distributed profits increases the total tax charge in the host country instead of reallocating taxation rights from the home to the host country. There is still a distributional effect because inward FDI is much larger than outward FDI in most developing countries. However, double taxation also creates a disincentive for foreign investors, thus generating a trade-off between revenues and international redistribution on the one hand and re-pricing on the other. To mitigate double taxation, withholding tax rates for dividend payments within a firm are usually lower than rates for dividends distributed to external non-controlling shareholders.

Fourth, withholding taxes serve as a backstop measure against tax base erosion and profit shifting (Conklin & Robertson, 1999; IMF, 2008, 2012b). In particular, withholding taxes on interest, royalties, and management fees form a barrier against profit shifting to low-tax affiliates by multinational firms. The operation of one of Chile's largest copper mines by Exxon Mobil is a notorious example of such tax avoidance strategies. The mine reported losses for 23 years, but it was in fact highly profitable. The losses resulted from high interest payments to a financing subsidiary of

Exxon Mobil in Bermuda, where the interest income was not taxed (Riesco et al., 2005). At the time, Chile imposed a mere 4% withholding tax on interest. After the profit shifting came to light, Chile raised withholding taxes on intra-firm interest payments to 35%; the 4% now applies for interest paid to foreign banks and financial companies only. Similar to Chile, many countries prefer to impose low or zero withholding taxes on interest payments to banks and other external creditors to facilitate access to external financing for domestic companies. The anti-avoidance reason explains why many countries differentiate between interest payments to foreign affiliates and non-affiliated creditors and apply higher rates for the former category. The case for dividend withholding taxes is somewhat different, because dividends are usually paid out of profits that have already been taxed. However, dividend withholding tax may still serve to secure minimum government revenues in case a company does not report profits, for example due to corporate income tax exemptions or high depreciation of new investments.

Fifth, in theory withholding taxes on dividend and interest payments have a re-pricing effect. Dividend withholding taxes make it less attractive for foreign investors to repatriate profits. This incentive can be important to stimulate investment (UNCTAD, 2008). Interest withholding taxes increase the cost of international debt financing for all companies. Both types of withholding taxes may therefore increase equity financing of investments relative to debt financing.

Indeed, some borrowing countries tend to regard taxation of interest payments as a mechanism to discourage excessive debt financing (Faria, 1995). Interest and royalty withholding taxes also form a key element of a dual income tax system, a normative framework for taxation that might be well suited for developing countries. A dual income tax system combines a uniform and relatively low[17] tax on all capital income (at source, thus in the host country) with a progressive tax on labour. To ensure a uniform rate on capital income, withholding taxes should be levied on interest, royalties, and similar payments that are deductible from the corporate income tax base. Interest withholding tax gets particular emphasis in this framework because its re-pricing effect prevents distortion of corporate financing decisions (Bird & Zolt, 2011; Fjeldstad & Heggstad, 2011; Volkerink, 2009).

Regarding dividend withholding taxes, a study on German multinationals confirms that these significantly decrease dividend repatriations by foreign subsidiaries (Bellak & Leibrecht, 2010). However, empirical research on US-based firms finds that taxes on dividend repatriations do not increase retained earnings. The reason is that firms have some flexibility with regard to the structuring of internal payments. Different withholding tax rates alter the composition of payments from a foreign subsidiary to the parent and other affiliates, but do not necessarily affect the total amount of payments (Grubert, 1998). This result provides support for the idea of a uniform withholding tax rate on all types of capital income.

[17] Relatively low might be interpreted as 20-25%.

In summary, many developing countries levy withholding taxes, especially on interest payments. These taxes are important as a source of revenue by themselves and also as a protection against international tax avoidance structures and tax evasion. Withholding taxes are especially relevant for developing countries because most of these countries are net FDI recipients and withholding taxes are relatively easy to collect.

## 1.4 Challenges and constraints for raising corporate tax revenues

### 1.4.1 Policy challenges in developing countries

This section briefly discusses several challenges to raise corporate tax revenues in developing countries. The thesis analyses international constraints to domestic revenue mobilisation that result from the Dutch tax system. Those constraints relate mainly to corporate taxes, hence the focus of this section on corporate tax revenues. It also discusses some domestic constraints.

A major domestic constraint is weak administrative capacity (IMF, 2011). Understaffed and poorly funded tax authorities limit both the amount of corporate taxpayers that can be assessed and the quality of the assessments. As a consequence, many small taxpayers are not taxed at all and large taxpayers may relatively easy reduce their tax burden using international tax planning strategies without being challenged by the tax authorities.

Most developing countries also have a large shadow economy. Cobham (2005a) estimates that tax revenues in developing countries could increase by USD 110 billion per year if shadow economies were brought into the formal system to the extent feasible. The large size of the shadow economy does not only result from administrative constraints. Torgler and Schneider (2007) show that it also depends directly on the tax culture and institutions of a country. A larger belief that paying taxes contributes to society and to better governance is associated with a smaller shadow economy. However, government performance influences the tax culture as well. Strong and progressive tax regimes and equitable access to public goods and services strengthen the social contract and contribute to a more positive attitude towards taxation (OECD, 2008a).

Another problem, related to globalisation, is the loss of revenues due to tax competition and tax incentives granted to foreign investors (CABRI et al., 2010). These tax incentives can take many forms, including tax holidays, exemptions from various types of taxes, accelerated depreciation of investments, and tax credits.[18] It is often thought that foreign investment is highly responsive to tax. Various econometric studies confirm this and suggest that export-oriented investments are especially sensitive

[18] For a detailed discussion of different types of tax incentives, see Tanzi and Zee (2000).

(Grubert & Mutti, 2000; Hines, 2005; Mutti & Grubert, 2004). High indirect taxes, such as VAT and trade tariffs, are also associated with lower foreign investment (Desai et al., 2004a). The apparent effect of taxes on location decisions of multinational firms has been a reason for lowering tax rates and granting exemptions.

This has resulted in tax competition among developing countries to attract FDI (Klemm & Van Parys, 2012; Nassar, 2009). In the end, this is detrimental to all countries involved, because lowering taxes across a group of countries hardly changes their relative attractiveness for foreign investors. In some cases, tax exemptions have also been granted to individual firms in secret deals. Taking into account the reductions in corporate tax rates and widespread use of incentives, the increase in corporate tax revenues in many developing countries since 1997 is a bit puzzling (Keen & Mansour, 2009). It seems that tax exemptions and declining tax rates have been offset by an increasing share of corporate profits in GDP (CABRI et al., 2010).

Recent studies show that countries with lower taxes are much less effective in attracting FDI than is often thought. High corruption has a negative impact on FDI (Habib & Zurawicki, 2002) and may be a larger burden for foreign investors than taxes. When controlling for the quality of governance and infrastructure, Goodspeed et al. (2011) and James (2009) find that FDI in developing countries is not very sensitive to host country taxation. This is consistent with surveys among investors that show that the investment climate depends on many factors other than taxation. Klemm and Van Parys (2012) find that lower tax rates and tax incentives attract FDI in Latin America, but not in Africa. Moreover, tax incentives are often not well targeted and therefore provide benefits to investors that would invest anyway. Bols et el. (2001) and Muller et al. (2004) conclude that tax incentives are usually not a decisive factor and therefore ineffective. Developing countries are therefore generally advised to limit the use of tax incentives to specific cases of market failures and focus on improving the overall business climate (CABRI et al., 2010; James, 2009; Zee et al., 2002).

Tax avoidance due to trade mispricing is also a major constraint to revenue mobilisation. When affiliates that belong to the same multinational trade with each other, they set internal transfer prices. The current international standard for transfer pricing, developed by the OECD, specifies that the trade should be at arm's length, that is, prices should not differ from those charged to unrelated parties. However, transfer prices are relatively easy to manipulate, because for many trades there are no comparable transactions with unrelated parties. Therefore, the OECD approach has become increasingly problematic (Avi-Yonah, 1995). The problem of transfer mispricing has been known for a long time and is more severe for developing countries because they have weaker tax administrations and face more difficulties collecting data on transfer pricing (Lall, 1979; McLure Jr., 2006). Furthermore, trade taxes are still an important source of revenue for low income and lower-middle income countries, and transfer mispricing can also be used to evade import tariffs or export levies. A survey

among tax authorities shows that developing countries are themselves aware of the issue and regard it as a serious cause of concern (Borkowski, 1997).

Empirical research on transfer pricing has been limited due to data constraints. Nearly all studies use US customs data to analyse trade between the US and other countries and find substantial trade mispricing (De Boyrie et al., 2005; Pak et al., 2003; Zdanowicz et al., 1999). The methods of some of these studies are somewhat problematic because they involve strong assumptions about what trades are abnormally priced. Studies using a more sophisticated approach confirm that multinationals manipulate export prices to shift profits to low-tax countries (Bernard et al., 2006; Clausing, 2003), but do not allow to estimate the precise amount of transfer mispricing. Moreover, when multinationals shift profits out of developing countries through transfer pricing, they probably shift them to low-tax jurisdictions and not to the US. Detailed data on these trades are not available. One study using data from Ireland, a low-tax jurisdiction, shows that multinationals indeed shift profits into Ireland through transfer pricing (Stewart, 1989). In a recent case, two independent audits of the large Mopani copper mine in Zambia, commissioned by the revenue authority, found that the Swiss firm Glencore operating the mine had engaged in substantial transfer mispricing. In the last five years, transfer pricing problems and their impact on domestic revenue mobilisation in developing countries have been receiving increasing attention from policy makers.

Other forms of tax avoidance by multinationals pose a challenge as well. Several empirical studies analyse profit shifting in general and find that higher profits are reported in jurisdictions with lower tax rates (Bartelsman & Beetsma, 2003; Weichenrieder, 2009). The profit shifting effect is stronger for R&D intensive firms, which provides evidence of income shifting through intangibles and royalty payments (Grubert, 2003a, pp. 227-229; Stöwhase, 2002). To some extent, this is a special case of transfer mispricing. However, even if royalty payments would be at arm's length prices, firms can shift profits to low-tax jurisdictions by locating patents and trademarks there. A recent study confirms that the location of intellectual property within multinational firms is responsive to tax rate differences (Karkinsky & Riedel, 2012).

Furthermore, various studies show that multinationals engage in deliberate profit shifting by financing their subsidiaries in countries with higher corporate income tax rates with a larger proportion of debt (Büttner & Wamser, 2007; Egger et al., 2010; Huizinga et al., 2008; Møen et al., 2011). Some of these studies try to account for the effect of withholding taxes on debt financing as well, but do not consider other profit shifting mechanisms or the use of conduit entities to avoid withholding taxes. A few other studies specifically analyse effects of withholding taxes on intra-firm transactions and show that multinationals adjust internal dividend, interest, and royalty payments to reduce overall withholding taxes (Collins & Shackelford, 1998; Grubert, 1998). Weichenrieder and Mintz (2008) provide the first direct evidence of FDI diversion via third countries in response to bilateral withholding taxes.

The challenges addressed in this thesis, mainly related to avoidance of withholding taxes in developing countries, have received very limited attention so far. Withholding taxes can be a material source of revenue by themselves and also serve as a backstop measure against profit shifting, as noted above. Several case studies on tax law therefore show that conduit entities can play a key role in profit shifting schemes (Bender, 2007; Kandev, 2009; Kleinbard, 2011; Michielse, 2011). However, broader economic studies that analyse profit shifting through interest and royalty payments have not paid special attention to the important link between profit shifting and avoidance of withholding taxes. This thesis also analyses the problem of withholding tax avoidance in combination with international profit shifting through interest and royalty payments.

### 1.4.2 Promoting policy coherence for development

Some constraints to domestic revenue mobilisation in developing countries are related to tax policies in donor countries (Cobham & McNair, 2012) and this means that policy coherence for development (PCD) is relevant. The concept of PCD refers to the absence of policy effects contrary to the aims of development policy as well as to the creation of synergies between different government departments to achieve development objectives (Hoebink, 2004; McLean Hilker, 2004). Debates on the relation between various aspects of external policy emerged in the early 1990s and resulted in a clause in the Treaty on the European Union (Maastricht Treaty) in 1992, requiring the EU to ensure consistency of external relations, security, economic, and development policies. Over the past ten years, donor governments started to establish PCD mechanisms, such as coherence units and consultation procedures, and attention for PCD is becoming more systemic (ECDPM, 2007). Trade policy is most widely included in PCD initiatives.

The United Nations included PCD elements in Millennium Development Goal (MDG) 8 on global partnership. Concrete targets for MDG 8 cover development aid, trade policy, debt sustainability, intellectual property regimes, and access to technology. However, the emphasis remains on developing country policies and in the monitoring of progress on the MDGs, attention for donor country policies remains limited (Picciotto, 2005). Moreover, monitoring of donor performance largely focuses on development aid (including debt relief). The main non-aid area highlighted by the UN is trade and donor performance on in this area is rather weak. Since 2004, average donor country tariffs on imports from LDCs have remained above 3% for textiles and 6% for clothing (United Nations, 2010). This suggests that policy incoherence remains a major challenge even in the area where it is broadly recognised. The UN conferences on Financing for Development in Monterrey, 2002, and Doha, 2008, have not contributed much to PCD. They generated little attention for aggressive tax avoidance by multinationals or other globalisation-related tax issues (Lesage et al., 2010).

The most comprehensive monitoring effort of PCD performance by donor countries has not been set up by the UN, but by the non-governmental Center for Global Development in the form of the Commitment to Development Index. The investment

component of this index includes an item on avoidance of double taxation for investors in developing countries (Roodman, 2012), but it does not cover policy incoherence due donor policies than may undermine domestic revenue mobilisation.

International Financial Institutions have supported the idea of PCD, but they have hardly incorporated this in their technical assistance programmes and evaluations of aid effectiveness (Picciotto, 2005). Regarding taxation, various institutions have come under attack for financing investments in developing countries via tax havens. These include the International Finance Corporation (IFC) (Danwatch, 2011), which is part of the World Bank Group, the Belgian Development Bank (BOI), and the European Investment Bank (EIB). In addition, the EIB has been criticised for financing the Mopani copper mine in Zambia, which has become the subject of a recent tax scandal (Simpere, 2010). It is also remarkable that various investments in developing countries that were diverted via Dutch SPEs received loans from the IFC or guarantees from the Multilateral Investment Guarantee Agency (MIGA), which is also part of the World Bank Group. These examples illustrate that IFIs do apparently not have policies to ensure coherence with respect to domestic resource mobilisation in developing countries.

The OECD identified a need to address aggressive corporate tax planning, including the use of tax havens and transfer mispricing, as part of a PCD agenda (OECD, 2005). However, this issue was hardly included in the development agendas of OECD members. Remarkably, the OECD has also referred to tax policy in developing countries as an area of PCD (OECD, 2008a). The OECD's development assistance committee has been paying considerable attention to the need to raise tax revenues in developing countries in recent years (OECD, 2012c; OECD & AfDB, 2010). The focus of the OECD's work in this area is mainly on domestic constraints and technical assistance, though, and not on development impacts of tax policies in OECD countries themselves. The OECD also has a committee on fiscal affairs, which started an initiative against Harmful Tax Competition in 1998. Although this programme does not have an international development angle, it did initially target aggressive corporate tax planning in way that would have benefitted developing countries too. However, the corporate tax element of the programme has gradually disappeared (Kurdle, 2008). The focus shifted to bilateral exchange of information between secrecy jurisdictions and OECD countries as a way to address evasion of personal income tax. This approach has not helped developing countries.

Of all bilateral and multilateral donors, the EU has arguably the most ambitious PCD agenda. Since 2009, the European Commission focuses on five policy areas for PCD: trade and finance, climate change, food security, migration, and security. The trade and finance area includes tax governance, which is mainly focussed on technical assistance. This is somewhat odd, because providing development aid to strengthen tax systems in developing countries relates to aid policy and not to donor policy in non-aid areas, which PCD usually refers to. The technical assistance programme includes

various initiatives to help developing countries deal with transfer pricing problems (European Commission, 2011). Regarding EU policies, the European Commission highlights the emergent country-by-country reporting requirements that would help to identify tax avoidance by multinationals, but the proposed EU directive has been weakened by the European Council since then. The European Commission initiative against aggressive tax planning launched in 2012 is mainly focussed on safeguarding tax revenues in EU countries. It does include a reference to developing countries, but again emphasises support in the form of technical assistance. The many actors involved in EU policy making, conflicting interests, and different levels of member state commitment to international development lead some to conclude that PCD in the EU is in fact a "*mission impossible"* (Carbone, 2008).

The Dutch Ministry of Foreign Affairs has also paid relatively strong attention to PCD and put in place explicit policies and structure to enhance policy coherence. From 2001 to 2004, the Ministry commissioned several studies on corporate tax issues as input for development policy. Regarding domestic policy in developing countries, the studies concluded that tax incentives are usually ineffective to attract foreign investment (Bols et al., 2001; Muller et al., 2004). Two studies also analysed effects of the Dutch tax system on revenue mobilisation in developing countries. One of these studies found that transfer mispricing in trade with the Netherlands was not a major issue (Muller et al., 2004). The other study focussed on tax treaties. Due to lack of data, it could not assess the costs and benefits for developing countries of concluding tax treaties in a quantitative manner (IBFD, 2004).

After 2004, coherence between tax and development policy apparently disappeared from the agenda for some time, perhaps because the studies commissioned by the Ministry did not provide evidence of incoherence. In December 2006, a report by the Centre for Research on Multinational Corporations (SOMO) highlighted several aspects of the Dutch tax system that had substantial negative consequences for other countries, including developing countries (Van Dijk et al., 2006). The report showed that the combination of the Dutch tax treaty network, a special tax regime for group financing companies, and the absence of Dutch withholding taxes on interest and royalties allow foreign multinationals to avoid taxes in other countries. Since 2007, the Ministry has again been paying increasing attention to PCD in relation to the Dutch tax system. At the same time, the Ministry of finance continued to push for a new special tax regime that would have facilitated aggressive tax avoidance structures. The special regime never entered into force and the project was dropped in 2009 because it was incompatible with EU legislation. There are no indications that the Ministry of Finance took into account the potential effects of the special tax regime on tax revenues in developing countries. Thus, policy incoherence remained highly problematic in this area.

Since 2009, there has been more regular and more constructive interaction on tax and development policies between the Ministry of Finance, the Ministry of Foreign Affairs, and several development organisations united in Tax Justice NL. The

involvement of the Ministry of Finance in development cooperation partly consists of technical assistance. This is in line with the EU (European Commission, 2011) and OECD focus (OECD, 2012c), but it is hardly relevant for addressing incoherence in donor country policies.

In February 2011, the Dutch Ministry of Finance published a new policy on tax treaties. This policy mentions the importance of policy coherence for development cooperation, but interprets policy coherence as an imperative to strengthen tax compliance in and information sharing with developing countries. Thus, similar to the OECD (OECD, 2008a), the ministry of finance emphasises the need for development-friendly policies in developing countries rather than in donor countries. The new tax treaty policy nonetheless includes a few specific principles on Dutch tax treaties that are relevant to developing countries. These include allowing for relatively high withholding taxes in treaties with developing countries and a commitment to include anti-abuse provisions in tax treaties if requested. Tax treaties and anti-abuse provisions will be discussed in more detail in Chapter 3. The principles might reflect increasing attention for coherence between Dutch tax and development policy as well. However, it remains to be seen how these principles will be implemented. The new tax treaty negotiated with Ethiopia in 2012 does not include anti-abuse provisions, for example. The slow progress in this area and the focus on technical assistance by the Netherlands and multilateral institutions suggest that coherence between development objectives and corporate tax policy in donor countries themselves still remains a major challenge.

## 1.5 Research objective and research approach

### 1.5.1 Research objective and research questions

The general objective of this thesis is to enhance the understanding of international constraints to domestic revenue mobilisation in developing countries. The focus of this thesis is on constraints to corporate taxation that result from Dutch corporate tax policy. This leads to the following main research question.

***What are the adverse effects of Dutch corporate tax policy on developing countries?***

To answer this question, the thesis mainly analyses effects of corporate tax policy through the use of Dutch SPEs by foreign multinationals. The analysis is guided by the following four sub-questions.

1. How do international aspects of Dutch corporate tax policy relate to Dutch development policy?
2. How do tax treaties influence the diversion of FDI through Dutch SPEs?

3. What is the relation between Dutch SPEs and the financing structure of multinationals?
4. How do specific tax avoidance strategies facilitated by Dutch SPEs affect developing countries?

The key elements of these questions will be briefly clarified.

- **Dutch corporate tax policy** covers Dutch tax law as well as bilateral tax treaties negotiated between the Netherlands and other countries.[19] The policy analysed in this thesis also include past measures, in particular the Dutch group financing activities regime that was phased out by 2011, and proposed measures, notably the group interest box that was adopted in 2006 but never entered into force.
- **Adverse effects** are defined as effects that are contrary to the interests of developing countries. Moreover, effects can be considered adverse if they are incoherent with Dutch development policy. The effects do not refer to a specific interest group in developing countries but to the public interest in general. Although the analysis in this thesis focuses on revenue effects, it also covers effects on redistribution and market functioning (re-pricing) and the conclusions briefly discuss implications for the relationship between taxpayers and the government (representation).
- **Effects of Dutch corporate tax policy** include all effects of corporate structures that are facilitated by Dutch tax policy. Such structures may involve corporate entities in various other countries as well. Furthermore, in some cases multinationals could in principle achieve the same benefits by routing investments through another country instead of the Netherlands. Thus, some effects of Dutch tax policy as defined here cannot be fully attributed to the Dutch corporate tax system alone but relate to the international tax system of which the Dutch tax system is a crucial part.
- **Developing countries** should be interpreted in a broad sense and sometimes refer to all low and middle income countries outside the EU. Some parts of the analysis distinguish major emerging economies as a separate group, but due to data limitations and confidentiality requirements, in other parts of the analysis this is not possible. In principle, though, the main research question also asks for the analysis of effects for individual developing countries, because of the large heterogeneity among countries.
- **Dutch Special Purpose entities (SPEs)** refer to Dutch entities that have an international financial role in a foreign multinational. It has become very difficult nowadays to define the home country of a multinational in a precise and meaningful way, though. The reason is that a multinational's historical origins, main place of management, financial headquarters, ultimate parent company, stock exchange listings, controlling shareholder, main production sites, and largest sales can be in different countries. Foreign multinationals should be generally interpreted as firms of non-Dutch origin, with a foreign place of corporate control, or without substantial

[19] See page 208 for a list of all Dutch tax treaties.

real business activities in the Netherlands. They can have a Dutch parent company, though. The vast majority of Dutch SPEs do not conduct real business operations, mainly hold foreign financial assets or intellectual property, are mainly funded with foreign equity and liabilities, and do not have a physical presence in the Netherlands. However, these characteristics do not apply to all SPEs. It is difficult to draw a line between SPEs with mainly financial activities or separate international financial activities on the one hand and entities with integrated international financial activities, domestic financial operations, and real business operations on the other hand. Therefore the identification of SPEs is not fully based on pre-defined rules and occasionally involves subjective judgements.[20]

- **Diversion of FDI** is defined as FDI into an intermediate country that is then reinvested as FDI in another country. The investment may pass through various entities in the intermediate country and undergo transformations, for example from an intra-group loan into an equity investment. This definition excludes investments that entities in the intermediate country finance by issuing bonds or obtaining other external funding themselves.
- **Specific tax avoidance strategies** are distinguished on the basis of the specific type of tax that is avoided, such as withholding tax on intra-group interest payments or host country corporate income tax, and the SPE structure that is used to avoid this tax.

This thesis does not contain a complete assessment of all effects of Dutch corporate tax policy. Intended positive effects, such as higher investment with a positive development impact by Dutch multinationals, are relatively well understood. FDI can have a positive impact on host country development through positive externalities and enhanced productivity, provided that adequate domestic institutions are in place. These institutions include sufficient competition in the domestic market and a sufficiently developed financial system (Alfaro et al., 2009; Cipollina et al., 2012; Hermes & Lensink, 2003; Moran et al., 2005; Nunnenkamp, 2004). The analysis in this thesis focuses on negative and unintended effects, which have so far received less attention in academic analysis. The main research question refers to adverse effects to indicate this focus. Thus, the analysis starts from the assumption that such effects exist and that they deserve further analysis.

The reference to adverse effects indicates a focus of the research, not a bias. The main research question does not imply that all effects of Dutch corporate tax policy on developing countries are adverse. To the contrary, it recognises that positive effects exist

[20] Balance of Payments Reporting Instructions 2003, having regard to section 7 of the External Financial Relations Act 1994, formally define Special Financial Institutions, or SPEs, as *"resident enterprises or institutions, irrespective of their legal form, in which non-residents hold a direct or indirect participating interest through a shareholding or otherwise and whose objective is or whose business consists to a major extent of receiving funds from non-residents and channelling them to non-residents"*. This definition is basically the same and requires subjective judgments as well.

as well and refers to adverse effects in order to distinguish these from other, potentially positive effects. Furthermore, the main research question does not presume that adverse effects are necessarily large or dominant. The balance between positive and negative effects probably differs per country and it is very well possible that for some developing countries, adverse effects are insignificant.

Figure 1.6 shows potential positive and negative effects of the Dutch tax system on corporate tax revenues in a developing country. The effects materialise through different pathways. A tax treaty between the Netherlands and a developing country may generate additional FDI in the developing country (boxes 1 and 2), thus changing the total volume of inward FDI (box A).[21] Effect 1A is intended; effect 2A is usually unintended, but positive. In addition, if withholding tax reductions lower the cost of external borrowing, a tax treaty can increase investment by domestic multinationals in the developing country (box 3). This contributes to the change in total volume of investments. Effect 3A is intended with regard to borrowing from the Netherlands; borrowing via the Netherlands may not be intended, but stimulates investments as well. The volume effect is likely to be positive and increases total tax revenues from multinationals in the developing country.[22]

For investments that already exist or would take place anyway (boxes 4 and 5), there is a tax rate effect (box B) if the tax treaty limits the host country's withholding tax rates on interest or dividend payments. The treaty can then also affect the financing structure of investments (box C), because withholding taxes influence the relative costs of debt and equity. Note that investments via the Netherlands (box 5) include FDI that is diverted for other reasons, for example to enhance investment protection. They also include intra-group loans from subsidiaries in other countries. The rate and composition effects exist for domestic multinationals that raise funding in international capital markets as well (box 6) and mainly reflect debt funding via the Netherlands. The pathway effects 4B and 4C are taken into account as known by-effects. The effects 5A, 5B, 6A, and 6B are unintended by-effects that may not be fully taken into account when a treaty is concluded. The tax rate effect is always negative and can substantially reduce withholding tax revenues; the composition effect is likely to be negative or neutral.

At the bottom, Figure 1.6 shows potential negative effects resulting from other aspects of the Dutch corporate tax system, related to royalty payments for the use of trademarks and intellectual property. Apparently, some SPEs have concluded agreements with the Dutch tax authority, called advance pricing agreements (APAs), that provide for a low effective tax rate on royalty income. Between 1997 and 2010, certain Dutch SPEs also benefitted from a low effective tax rate on royalty income under

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[21] A tax treaty can have negative effects on incremental investments by foreign multinationals as well if withholding tax reductions lower the costs of repatriating income, as discussed above. Thus, the effects 1A and 2A may also include repatriations to the Netherlands and via the Netherlands that would otherwise not occur.

[22] It does not necessarily raise total corporate tax revenues from multinationals and smaller domestic enterprises combined, for example if foreign investment crowds out domestic investment.

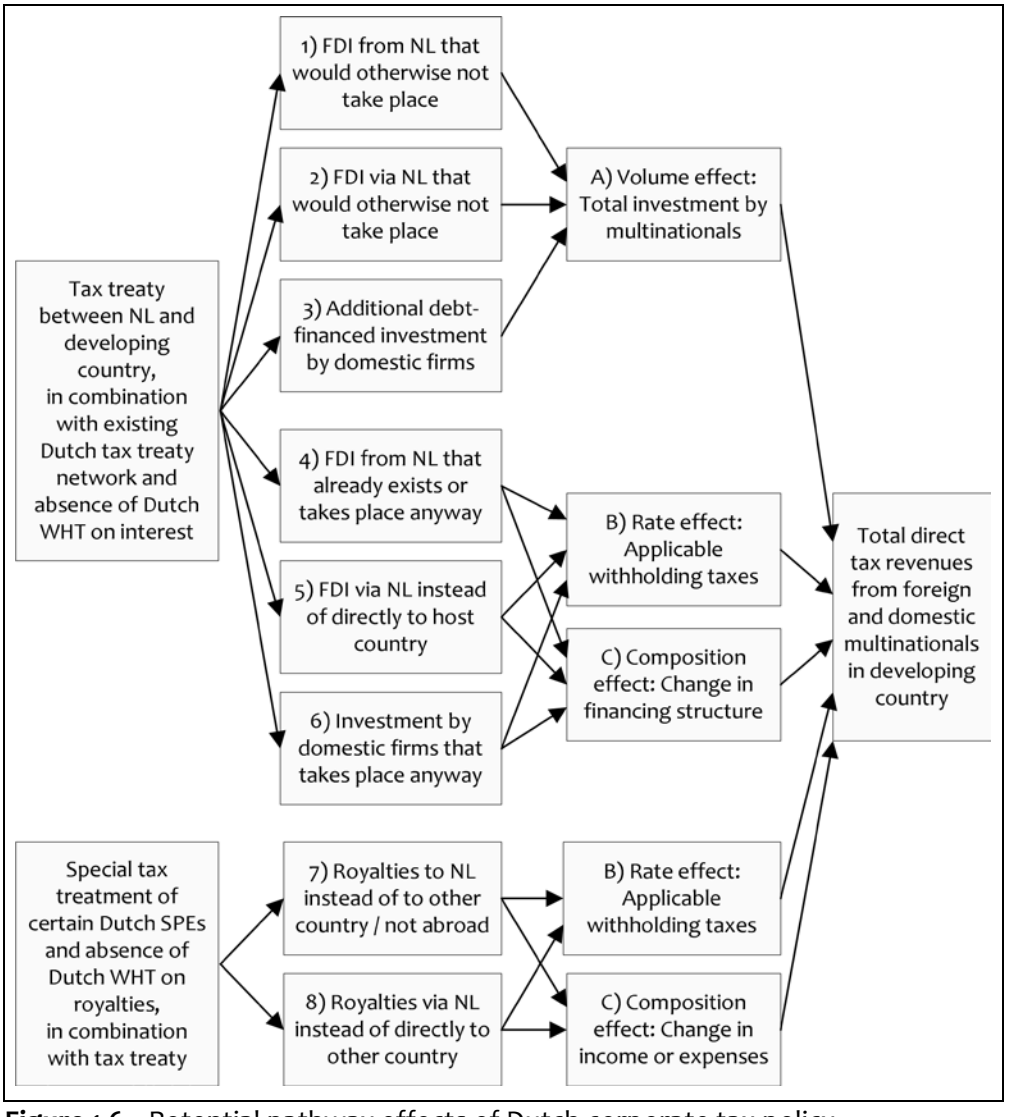


**Figure 1.6** Potential pathway effects of Dutch corporate tax policy

the Dutch Group Financing Activities (GFA) regime.[23] Multinationals may move trademarks or intellectual property to the Netherlands to take advantage of such special tax treatment (box 7). These intangible assets can originate from the home country of the multinational, but also from developing countries. Furthermore, the Netherlands does not have a withholding tax on outgoing royalty payments. In combination with a tax

[23] Chapters 2 and 4 briefly describe the GFA regime; Chapter 5 provides examples of APAs that result in low effective tax rates. Special tax treatment of Dutch SPEs may also result in a low effective tax rate for other types of foreign income, notably interest income. This thesis focusses on special tax treatment of royalties.

treaty that limits withholding tax on royalty payments to the Netherlands, this can result in royalty conduits (box 8). The treatment of royalty payments is unlikely to have a significant effect on the total volume of investments. Therefore the bottom part of the figure shows rate and composition effects only. Pathway effects 7A, 7B, 8A and 8B are unintended. The rate effect may be negative or neutral; the composition effect is always negative and probably larger, because firms have considerable flexibility in determining license fees.

Note that Figure 1.6 does not show all possible effects of the Dutch corporate tax system. It does not consider effects of FDI on the broader economy and externalities of foreign investments that have an indirect impact on tax revenues. Effects on the broader economy include crowding in or crowding out of domestic investment, for example due to changes in market structure, exchange rate effects, or acquisitions of domestic firms by foreign investors. Positive and negative externalities range from forward and backward linkages and transfer of skills and technology to impacts on the environment and on local communities. This thesis focuses mainly on direct effects on corporate tax revenues and on market functioning. It does not analyse indirect impacts of investments by multinational firms on domestic revenue mobilisation.

Furthermore, Figure 1.6 shows potential pathway effects for an individual country. The volume effects for individual countries do not add up to the total volume effect for all developing countries combined. A tax treaty between the Netherlands and a developing country may cause some firms to invest in this country instead of in another developing country. Such investment decisions generate a positive volume effect for this specific country only and not for developing countries as a group. By contrast, rate and composition effects for individual countries do usually add up to the total effect on all developing countries combined.

Regarding the effects shown in the figure, this thesis covers negative tax rate effects for FDI via the Netherlands (5B), external debt of domestic multinationals (6B), and royalty payments (7B and 8B). Furthermore, it analyses potential negative composition effects resulting from lower interest withholding taxes (5C, and 6C) and royalty structures (7C and 8C). The thesis does not investigate FDI originating from the Netherlands (1A, 4B and 4C). Furthermore, it does not analyse potentially positive volume effects of FDI via the Netherlands (2A). It would have been useful to study this effect separately and determine what part of FDI diverted via the Netherlands is additional (box 2) and what part merely follows a different route (box 5). However, data limitations form a major obstacle. Time series data on bilateral FDI originating from the Netherlands are available, for example from the OECD. However, time series data on total bilateral FDI from the Netherlands, including FDI via the Netherlands, are available for a few developing countries only. The reason is that data on FDI via the Netherlands for years before 2009 must be obtained from statistics reported by the host countries themselves, and for many developing countries such statistics are not available

or inconsistent. Finally, the thesis does not cover potentially positive effects of tax treaties on the volume of investments by domestic multinationals (3A).

### 1.5.2 Structure of the thesis

This thesis contains four empirical chapters, which have been written as separate papers. Each empirical chapter address one of the four sub-questions mentioned above and includes its own literature review and description of data and methods. There is some limited overlap between the literature sections and data descriptions in the different chapters.

The first empirical chapter provides a general overview of relevant aspects of Dutch corporate tax policy and their effects on developing countries. It discusses both positive and negative effects and includes a rough estimate of missed tax revenues in developing countries as a consequence of Dutch tax policy. After that, it analyses to what extent the negative effects are adverse in the sense that they are incoherent with Dutch development policy.

The second empirical chapter focuses on the reduction of dividend withholding taxes under bilateral tax treaties, a key aspect of Dutch tax policy. The chapter analyses in detail to what extent the Dutch tax treaty network results in treaty shopping, that is, FDI diversion due to avoidance of withholding taxes by multinational firms. It includes a qualitative discussion of the negative effects for host countries that have a tax treaty with the Netherlands.

The third empirical chapter focuses on the absence of interest withholding tax on outgoing interest payments, another key aspect of Dutch tax policy. The chapter aims to provide a better understanding of how this affects the external and internal financing structures of multinationals. Because of data limitations, the analysis is limited to European multinationals and their European subsidiaries. However, the general insights from this chapter can be extended to developing countries that have particular tax treaties with the Netherlands.

The fourth empirical chapter assesses the relevance of various corporate tax avoidance strategies facilitated by Dutch tax policy, including the strategies analysed in the previous two chapters, for developing countries. It provides a quantitative description of the investment positions and income flows associated with different types of SPE structures. Using additional data sources, this fourth chapter identifies individual developing countries (and some EU countries) that are relatively strongly affected by avoidance of dividend and interest withholding taxes. It also analyses corporate tax avoidance via royalty structures. Although this last part of the analysis is less comprehensive as a result of data limitations, it identifies some affected developing countries as well.

Together, the four empirical chapters analyse some of the most important adverse effects of Dutch corporate tax policy on developing countries. The results allow to focus efforts for policy coherence between Dutch tax and development policy on specific

aspects of Dutch tax policy and on a few countries that are relatively strongly affected. The final chapter summarizes the results for the sub-questions, answers the main research question, discusses the findings, and presents policy implications for donor countries.

### 1.5.3 Methods and data

In addition to the complete description of methods, data and sources in each of the empirical chapters, Table 1.2 on pages 64-65 presents a general overview.[24] The first empirical chapter analyses government policies and is therefore mainly qualitative in nature. It includes a brief quantitative description of Dutch SPE investments to show the relevance and potential negative impact of Dutch corporate tax policy for developing countries.[25] The second and third empirical chapter analyse treaty shopping and the role of SPEs in debt financing structures using econometric methods. Treaty shopping is analysed at the macro level, using data on bilateral diverted and non-diverted FDI stocks, and pays special attention to developing countries. Debt shifting can only be analysed at the micro level and research on internal financing structures requires financial data at the level of individual subsidiaries. Because such data are not available for developing countries, the third chapter studies the general role of Dutch SPEs in debt financing using data from EU-based firms and their EU subsidiaries. The fourth chapter mainly presents a quantitative analysis of different SPE structures and specific tax avoidance strategies. This last empirical chapter uses the most diverse data sources and contains the most recent and detailed information on how the Dutch corporate tax system affects developing countries.

[24] Throughout this thesis, most financial amounts are expressed in euro (€), because this is the original currency of DNB data and the Reach and Amadeus databases, key sources for this thesis. All other currencies have been converted at official rates published by DNB. Investment positions and balance sheet items have been converted at the final exchange rate for the corresponding period or fiscal year. Capital and income flows have been converted at average rates for the nearest calendar year.

[25] After this first empirical chapter was finished and accepted for publication, additional data on Dutch SPE investments became available and several companies admitted to the Dutch GFA regime could be identified. The insights from this newly available information are reflected in the third and fourth empirical chapter.

**Table 1.2** Overview of research methods, data, and sources

| Chapter | Sub-question | Methods |
|---|---|---|
| 2 | How do international aspects of Dutch corporate tax policy relate to Dutch development policy? | ▪ Qualitative analysis of Dutch government policies<br>▪ Aggregate estimates of Dutch SPE investments and missed tax revenues in developing countries |
| 3 | How do tax treaties influence the diversion of FDI through Dutch SPEs? | ▪ Quantitative description of geographical patterns of SPE investments<br>▪ Econometric analysis of FDI diversion through Dutch SPEs |
| 4 | What is the relation between Dutch SPEs and the financing structure of multinationals? | ▪ Econometric analysis of debt financing at the firm and subsidiary level |
| 5 | How do specific tax avoidance strategies facilitated by Dutch SPEs affect developing countries? | ▪ Quantitative description of assets and liabilities, income flows, and other characteristics of Dutch SPEs<br>▪ Quantitative and qualitative description of FDI diversion and debt issuance via Dutch SPEs (for specific host and home countries) and of Dutch royalty SPEs |

| Data | Sources |
|---|---|
| a) Policy documents, research reports commissioned by the Dutch government | a) Dutch government |
| b) Limited macro data on Dutch SPE investments | b) DNB |
| c) Macro data on FDI stocks and royalty flows | c) DNB, UNCTAD |
| a) Anonymised micro data on FDI via Dutch SPEs and Dutch SPE ownership | a) DNB, Reach database |
| b) Macro data on bilateral FDI stocks (excluding Dutch SPEs) and total FDI stocks | b) OECD, UNCTAD |
| c) Data on bilateral tax and investment treaties | c) IBFD, UNCTAD, Dutch government |
| d) Data on bilateral dividend WHT and corporate income tax rates | d) E&Y, Deloitte, PwC, national sources |
| e) Corruption perception index | e) Transparency International |
| a) Consolidated financial data of EU-based firms | a) Amadeus database, annual reports |
| b) Unconsolidated financial and ownership data of Dutch SPEs and subsidiaries in EU countries | b) Amadeus and Reach databases, Dutch Chamber of Commerce |
| c) Supplementary data on industry peer groups, outstanding debt securities, and corporate income tax rates | c) Hoovers, annual reports, company websites, credit rating agencies, European Commission |
| a) Anonymised micro data on Dutch SPEs and Dutch SPE ownership | a) DNB, Reach database |
| b) Macro data on bilateral FDI stocks (including and excluding Dutch SPEs) and total FDI stocks | b) OECD, IMF, UNCTAD |
| c) Macro data on foreign private debt securities | c) BIS |
| d) Micro data on outstanding debt securities | d) Security exchanges, credit rating agencies, investment funds, annual reports |
| e) Micro data on specific Dutch SPEs | e) Dutch Chamber of Commerce, IFC, MIGA, UNCTAD, national investment promotion agencies, national company registers, annual reports, Reach database |
| f) Bilateral WHT data | f) Tax treaties, E&Y, Deloitte |

# 2 Incoherence between tax and development policies

An adjusted version of this chapter has been published as Weyzig, F., & Van Dijk, M. (2009). Incoherence between Tax and Development Policies: the case of the Netherlands. *Third World Quarterly, 30*(7), 1259-1277. The article is available at http://www.tandfonline.com/doi/full/10.1080/01436590903134916.

**Abstract** *This chapter discusses incoherence between tax and development policies, a relatively new area in the debate on policy coherence for development, using a case study of the Netherlands. Dutch special purpose entities play a key role in tax avoidance structures of multinational corporations. This chapter argues that the Dutch tax regime facilitates the avoidance of substantial amounts of tax revenues in developing countries when compared to the Dutch aid budget. As domestic tax revenues are an important source of financing for development, this suggests the Dutch tax policy is incoherent with the Dutch policy on development cooperation. The lack of policy coherence is largely unintended but it has structural and political causes.*

## 2.1 Introduction

Traditionally, discussions on Policy Coherence for Development (PCD) have centred on policy areas such as agriculture and trade. This chapter focuses on a relative new area: incoherence between tax policy and development policy – with a case study of the Netherlands.

A key element of sustainable development is developing countries' ability to raise sufficient tax revenue to finance infrastructure, education, and health, as well as their ability to reduce dependency on foreign development assistance. In addition, it has been argued that apart from raising revenue, taxes also play a *"central role in building and sustaining the power of states, and shaping their ties to society"* by enhancing the accountability between the state and its citizens (Bräutigam et al., 2008). There are, however, signs that multinational firms and wealthy individuals are increasingly using complex fiscal structures to avoid taxes in the countries where they operate[26] or reside and to shift income tax havens. As a consequence, both poor and rich countries fail to collect important tax revenues that could have been used to finance public goods and services.

A few studies estimating forgone tax revenues suggest that the effects for developing countries are severe. Oxfam estimated that developing countries miss out on USD 50 billion in tax revenue each year as a consequence of tax evasion and tax avoidance strategies of multinationals (Oxfam, 2000). According to the African Union, more than USD 150 billion is *"looted from Africa through tax avoidance by giant corporations and capital flight using 'a pinstripe infrastructure' of western banks, lawyers and accountants"*.[27]

The main aim of this chapter is to analyse the consequences of the tax haven features of the Netherlands for developing countries and to investigate incoherence between Dutch tax and development policies. The chapter starts with a broader discussion on PCD, followed by a discussion on harmful effects of tax havens in general. Next, it briefly describes the Dutch tax regime in relation to international corporate tax planning and discusses positive and negative effects for developing countries. It includes a rough estimate of the amount of tax avoidance in developing countries facilitated by Dutch financing companies. After that, it discusses relevant aspects of Dutch development policy and consider the causes of policy incoherence. The chapter ends with conclusions.

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[26] Some fiscal structures are intended to avoid double taxation on foreign income in the host and the home country. These structures typically do not reduce corporate income taxes in the host country (although they may reduce withholding taxes). In this chapter, tax avoidance mainly refers to more aggressive types of fiscal planning that do reduce taxation in the host country.

[27] N. Mathiason, "Western bankers and lawyers 'rob Africa of $150bn every year'", The Observer (England), 21 Jan 2007.

## 2.2 Policy coherence for development

The concept of PCD can refer to the absence of policy effects contrary to the aims of development policy as well as to the creation of synergies between different government departments to achieve development objectives (Hoebink, 2004; OECD, 2001). There exists no universally agreed definition, though (ECDPM, 2007; Hoebink, 2005; McLean Hilker, 2004). For the purpose of this thesis, a definition from a previous study will be used: *"PCD means working to ensure that the objectives of a government's development policy are not undermined by other policies of that government, which impact on developing countries, and that these policies support development objectives where feasible"* (McLean Hilker, 2004, p. 5).

Debates on the relation between various aspects of external policy emerged in the early 1990s and resulted in a clause in the Treaty on the European Union (Maastricht Treaty) in 1992, requiring the European Union (EU) to ensure consistency of external relations, security, economic, and development policies. Over the past ten years, donor governments started to establish PCD mechanisms, such as coherence units and consultation procedures, and attention for PCD is becoming more systemic (ECDPM, 2007). Apart from incoherence within development cooperation itself and internal coherence between development and other external policies, PCD has been extended to cover the effects of other policy areas as well (Hoebink, 2005).

Trade policy is by far the most widely included in PCD initiatives (European Commission, 2007a). In a recent working paper, the European Commission identified eleven other relevant policy areas: environment, climate change, security, agriculture, fisheries, the social dimension of globalisation, migration, research, the information society, transport, and energy (European Commission, 2007b). Note that this list does not include taxation or other financial aspects of globalisation. By contrast, a list of six key policy areas identified by the Organisation for Economic Co-operation and Development (OECD) includes foreign investment, and mentions that OECD efforts to tackle tax evasion contribute to PCD (OECD, 2003). In a more comprehensive study, the OECD emphasises that double taxation can be a serious barrier to trade and investment, but also identifies a need to raise awareness *"on topics such as bribery, aggressive use of tax havens or transfer pricing schemes"* (OECD, 2005). Still, tax issues are rarely included in PCD initiatives of donor countries.

This chapter explores coherence between corporate taxation and development policies, including decisions on the location of real business activities as well as on the location of profits within a multinational. The focus will be on the occurrence of inconsistencies, which is referred to in the first part of the definition of PCD cited above, rather than synergies between development policy and other policy areas.

Causes of incoherence can be classified along three dimensions (Hoebink, 2004, 2005). First, policy incoherence can be intended, if a government deliberately prioritises other interests, or unintended, if a government does not notice the conflicting outcomes.

Second, incoherence can be structural, in case different interests are inherently conflicting, or temporary, in case different interest groups need time to adjust to a new situation. Third, the nature of the causes can be institutional, for instance due to the compartmentalisation of government departments, or political, due to conflicting interests and ideologies. This classification will be used as a framework for analysis of the Netherlands case study.

## 2.3 Tax havens and development

Tax havens undermine the interests of poor countries in a number of ways (Kohonen & Mestrum, 2009). First, tax havens offer multinationals and rich individuals the possibility to avoid or even evade paying taxes in developing countries by diverting capital and income to shell companies in tax havens. Due to the combination of high capital mobility, differences in national tax systems, and the secrecy offered by many tax havens, multinationals have considerable flexibility to shift profits from countries where economic activities take place to tax havens, often without violating national laws. The main strategies to shift profits within multinationals are the manipulation of prices of goods that are traded internally, called transfer mispricing, and the manipulation of internal financial flows such as interest, royalties, and dividend payments.

Second, apart from missed tax revenue, the use of tax havens to escape taxation also provides multinationals with unfair competitive advantages vis-à-vis smaller companies that do not have the capacity to organise this type of fiscal structures and domestic companies that cannot exploit international arbitration opportunities. As companies in developing countries are generally smaller and typically more domestically focussed, the use of tax havens tends to favour companies from developed countries over developing country competitors.

Third, banking secrecy and offshore trusts facilitate the laundering of proceeds from political corruption, illicit arms deals, embezzlement, drugs trade, and other criminal activities.

Finally, the lack of transparency and weak financial oversight has also facilitated the use of off-balance sheet investment vehicles and other risky financial constructions. This has contributed to the global financial crisis (Murphy, 2008) that started in 2007 and is adversely affecting some developing countries as well (Naudé, 2009).

## 2.4 The Netherlands: A tax haven?

### 2.4.1 Definition of tax havens

'Tax haven' is a controversial term that can have different meanings and is used for different purposes. There does not exist consensus on a single set of tax haven criteria or list of tax havens.[28] The official list published by the OECD (OECD, 2009), for example, is partly the outcome of a political negotiation process and is exclusively based on standards of information exchange, even though the OECD itself previously established a broader set of criteria (OECD, 1998). For the purpose of this thesis, it is important to distinguish between pure tax havens and countries that exhibit harmful preferential tax regimes. Both types of tax havens have in common that their regulations facilitate evasion or avoidance of tax that may be due in another country under that other country's laws.

Pure tax havens, sometimes referred to as offshore financial centres, are jurisdictions generally characterised by zero or very low tax rates, lack of transparency, secrecy laws that prevent information exchange, and ring-fencing of regimes (insulating preferential tax regimes from domestic markets). Financial services typically constitute a major part of their economy. Examples of pure tax havens are the British Virgin Islands, Cayman Islands, Bermuda, and Jersey.

The second group of tax havens consists of countries with a diversified economy and a normal tax system for most of the economy but with certain exceptions or low-tax facilities, often for specific business activities. In addition, such countries are commonly characterised by the presence of specialised advisors, lawyers, and accountants, who assist multinationals with their tax planning and by a large number of bilateral tax treaties that reduce withholding taxes on international income flows. They also typically host large numbers of corporate entities without commercial presence, such as mailbox or shell companies, that are established in the country purely for tax reasons.

The Netherlands is clearly not a pure tax haven. However, as will be explained in more detail below, the Netherlands does have a tax regime that facilitates aggressive corporate tax avoidance abroad and as such could be considered a tax haven for large multinationals. Other examples of countries with such a regime are Ireland, Switzerland, and Luxembourg.

### 2.4.2 The Dutch fiscal regime and Special Financial Institutions

For more than 30 years, the Netherlands has been known as an international tax planning centre for multinationals (Van Dijk et al., 2006). It is attractive for multinationals to channel Foreign Direct Investment (FDI) as well as interest, royalties, and dividend payments from one country to another via entities in the Netherlands. Such

[28] For an overview of definitions and country lists, see for example Booijink and Weyzig (2007) .

arrangements are called conduit structures. Key underlying elements of the Dutch tax regime that facilitate conduit structures are the large network of favourable tax treaties, zero withholding taxes on outgoing interest and royalty payments, and exemption of foreign dividend income and capital gains.

Conduit arrangements can be harmful because they can facilitate income shifting within a multinational, resulting in tax avoidance in the countries where the income was generated, including developing countries. Moreover, by acting as conduit country, the Netherlands plays an important role in routing financial flows to pure tax havens, where many licensing and financing subsidiaries of multinationals are located and little or no tax is paid. Often outsiders cannot easily identify the ultimate parent companies of these tax haven entities because of a lack of transparency.

The Netherlands hosts a large number of conduit entities. The Dutch Central Bank (DNB) maintains a special register for this type of entities (DNB, 2003), which may also be referred to as Special Purpose Entities (SPEs).[29] SPEs include both mailbox companies and other tax planning entities. Most mailbox companies have only one employee or none at all and merely perform an administrative function.[30] They are administrated by trust offices, which incorporate and manage the companies on behalf of the multinationals that the mailbox companies belong to. Other SPEs are not managed by a trust office. Most of these are part of very large multinationals that, given the scale and complexity of their transactions, probably prefer not to contract out the management of their SPEs. These entities vary from small units that employ a handful of administrative staff to large regional or financial head offices of foreign multinationals. According to DNB, almost 75% of SPEs are represented by trust offices (DNB, 2007b).

In conformance with their purpose, DNB identifies three types of SPEs. The first are financing companies. They take up and on-lend funds obtained from international capital markets, from the parent company, or from other financing affiliates. Examples of multinationals with Dutch financing companies are SABMiller and (now bankrupt) Lehman Brothers. The second are holding companies. These manage foreign participations, act as dividend conduits, and perform acquisitions on behalf of the parent company. Some examples are Mittal Steel, EADS, ENI, Trafigura, Premier Oil, BHP Billiton, and Pirelli.[31] It is likely that most of these companies also perform financing activities. The third type are royalty and film right companies that exploit licences, patents and film rights. Diageo and SABMiller have transferred some of their trademark rights to the Netherlands, for example. There are no public data on transactions associated which each type of SPEs, but DNB states that *"considering the magnitude of*

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[29] DNB, Dutch legislation, and the article version of this chapter refer to these entities as Special Financial Institutions. This thesis uses the more common term Special Purpose Entities, in line with OECD terminology (OECD, 2008b).

[30] Occasionally mailbox companies are established in the Netherlands to benefit from foreign investment protection under Dutch Bilateral Investment Treaties (BITs) as well.

[31] The examples mentioned in this section are based on research by the authors. They do not represent data of DNB and it is therefore unknown whether these companies are included in the DNB SPE register.

*their cross-border transactions, the financing companies are the largest type of [SPEs], followed by holding companies"* (DNB, 2004).

In 2007, DNB recorded approximately 10,000 individual entities. The number of SPEs and the value of their gross financial transactions have substantially grown since the mid-1990s, indicating that SPE activity has been increasing. For the period 2003-2007, the average net income received by SPEs from affiliates in low and lower-middle income countries was almost €6.4 billion per year (DNB, 2008).[32] The value of SPE transactions that may be related to aggressive tax avoidance in developing countries is therefore potentially very large.

### 2.4.3 Foreign direct investment via SPEs

SPEs mainly serve to route capital and income through the Netherlands and are therefore largely unrelated to the Dutch economy. Hence, in order to present figures on FDI related to real business activity in the Netherlands, DNB publishes annual FDI statistics excluding SPEs. In order to obtain a better understanding of the scope of SPE transactions in the global economy, Figure 2.1 compares the Dutch outward FDI stock including SPEs to the FDI data of some other high income OECD countries.

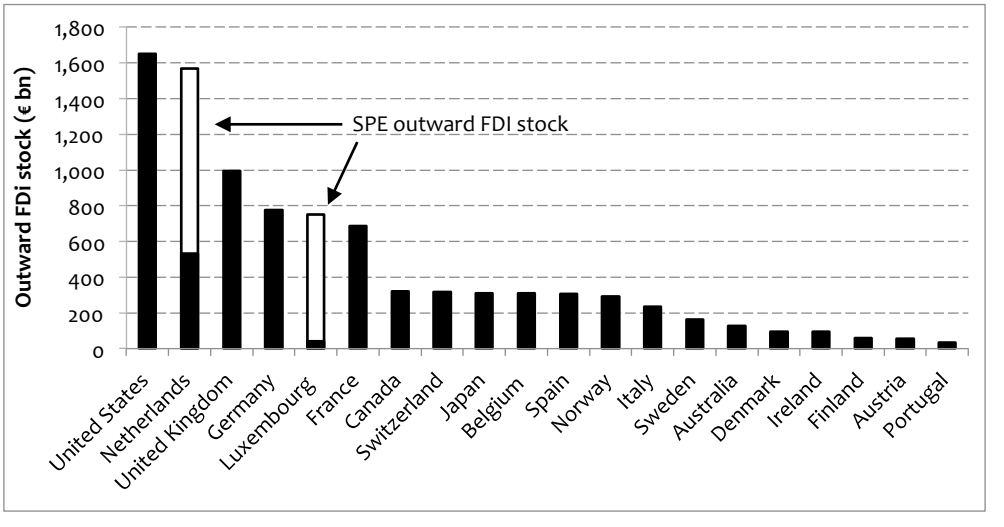


**Figure 2.1** Outward FDI Stock, selected OECD countries, 2005

Sources: Normal FDI stocks from UNCTAD (2006), FDI stocks of SPEs from DNB Tables T12.10 and T12.14 (previously T5.11 and T5.15), http://www.statistics.dnb.nl/index.cgi?lang=uk&todo=Balans (accessed 26 Sep 2008), and Luxembourg Central Bank, Table 9.2, http://www.bcl.lu/fr/statistiques/series_statistiques, (accessed 17 Jan 2012). Outward FDI stocks of SPEs for other countries, such as Switzerland and Ireland, are not shown due to lack of data.

[32] On the basis of the trust office register of DNB, it can be estimated that there are about 20,000 mailbox companies in the Netherlands. It seems that a considerable part of mailbox companies falls outside the DNB definition of SPEs.

The figure shows that the outward FDI stock of SPEs by far exceeds the outward FDI stock of normal Dutch companies. When SPE transactions are not taken into account, the Netherlands comes fifth in terms of the size of outward FDI stock in 2005. However when SPE investments are included, the Netherlands is the second largest foreign investor in the world, just behind the USA and far ahead of the UK, the number three largest investor. The figure for inward FDI stock (not presented) shows the same pattern as that for outward investment stock.[33]

## 2.5 Consequences for developing countries

The Dutch tax regime has important consequences for developing countries. These are discussed below.

### 2.5.1 Negative effects

First, the intra-group income and capital flows channelled through Dutch SPEs to take advantage of the beneficial Dutch tax regime suggest that tax is avoided in other countries. This tax would have been paid if the Netherlands had not been used as a conduit country. Through conduit constructions, income is sometimes shifted from a subsidiary in a developing country to a subsidiary in a pure tax haven in the form of royalties or interest payments. The direct result is a lower total tax burden for the multinational corporation, no or very low tax revenues on the income shifted to the pure tax haven, and some tax revenue on the operational margin in the Netherlands, at the expense of the developing country. The use of such constructions is indicated by promotional materials from tax advisors and supported by data on the aggregate financial flows between SPEs and developing countries as well as anecdotal evidence on tax avoidance by specific multinationals.[34]

Second, apart from conduit structures, SPEs may also use special Dutch tax facilities to reduce their total tax burden. In 1997, the Netherlands introduced a special regime for Group Financing Activities (GFA). This regime offers an effective tax rate of 6-10% on the balance of interest received minus interest paid on loans to and from foreign

[33] Ireland and Cyprus are frequently mentioned as European countries with a favourable tax regime for conduit arrangements similar to those offered by the Netherlands and Luxembourg. Outside Europe, Hong Kong is known for being used for round-tripping investments from and to China. See e.g. ECB (2004) and UNCTAD (2006). If data on special entities comparable with SPEs on such countries (not available) were also included in the figure, their total outward FDI stock might also have been substantially higher.

[34] An example of profit shifting using a royalty conduit structure is the case of SAB Miller, an Anglo-South African brewery. For over 25 years, the multinational paid millions in royalties to its Dutch mailbox subsidiary that owned the trademarks of several of its beer brands. By means of this arrangement, during the apartheid years, SAB avoided the exchange controls that were imposed in South Africa and successfully avoided paying any taxes in South Africa on the royalty payments. *SAB's dirty secret*, Noseweek, 51, November 2003; *SAB's lying Dutchmen*, Noseweek, 52, December 2003.

affiliates.[35] In 2003, the GFA regime was found to violate EU competition law and it is now being phased out. Approximately ninety companies were admitted to the GFA scheme, including large multinationals such as BHP Billiton and SAB Miller,[36] and for most companies the scheme has expired in 2007 or 2008. As of April 2009, a new law, replacing the GFA regime and offering similar benefits, still awaits approval from the European Commission.

Multinational corporations using the scheme can increase loans from a Dutch group financing company to a subsidiary in a developing country to avoid taxation. The direct result would be a lower total tax burden for the multinational corporation and a higher tax revenue in the Netherlands at the expense of the developing country. There is some evidence from academic studies that multinational corporations indeed use intra-group financing strategies to reduce their total tax burden (Grubert, 2003a; Mintz & Weichenrieder, 2005; Riesco et al., 2005). These studies are based on detailed financial data from individual subsidiary and parent companies.

As a consequence of the opportunities for multinational corporations to reduce their tax burden, the Dutch tax regime provides them with a competitive advantage over smaller and less internationalised companies, including domestic competitors in developing countries. This competitive advantage from tax avoidance is unrelated to operational performance and is therefore likely to distort market efficiency. The market distortions from tax advantages of large multinationals could also harm the economies of developing countries.

### 2.5.2 Positive effects

Apart from the negative effects mentioned above, the Dutch tax policy also has some positive effects for developing countries. Dividend income and capital gains arising from foreign subsidiaries are exempted from tax in the Netherlands. This encourages investment in developing countries with a lower corporate tax rate. Furthermore, treaties concluded between the Netherlands and developing countries are based on the UN model convention for tax treaties. In contrast to the OECD model treaty, the UN model does not completely eliminate withholding taxes on royalties and interest but reduces these to some 10%. This is relatively favourable for developing countries. Dutch tax treaties also include tax sparing clauses. This allows Dutch companies to benefit from tax holidays in developing countries without residual taxes applying in the Netherlands and therefore encourages investment in developing countries offering tax holidays.

[35] In practice, the effective tax rate on intra-group interest income is 15% on average. Commission Decision of 17 March 2003 (2003/515/EC), Official Journal of the European Union L 180, pp. 52-66.

[36] Reports filed at the Chamber of Commerce mention the use of the GFA regime by these companies.

### 2.5.3 Discussion of negative and positive effects

There have been questions as to whether the tax avoidance strategies mentioned above would make sense for operations in developing countries, because many multinationals obtain tax holidays or other tax incentives when they invest in these countries. As a consequence, subsidiaries in developing countries are exempt from corporate tax and sometimes also from withholding taxes, so there would be no tax charge to avoid in the first place. However, even though many foreign investors do enjoy generous tax incentives in developing countries, this does not mean that *all* FDI is completely exempt from corporate tax for an indefinite period. Academic studies using micro data show that some multinational corporations do pay corporate taxes in developing countries (Desai et al., 2003; Grubert, 1998). A loss of corporate tax revenues is therefore still possible. It should also be recognised that corporate income taxes constitute a much larger proportion of total tax revenues in developing countries than in developed countries (Tanzi & Zee, 2000).

If tax avoidance strategies lower the tax burden on the operations of multinational firms in developing countries, this could make it more attractive to invest in these countries. Thus, apart from income shifting effects, there may also be an effect on real business operations, and there is some evidence for this effect from actual behaviour of multinational firms (Grubert, 2003a). Higher levels of investment would mitigate the negative consequences of tax avoidance. It is unlikely that this would fully compensate for the loss of tax revenues, though, because tax avoidance would have a similar effect as tax incentives offered by host country governments. That effect is generally limited because tax incentives are rarely a decisive factor for location decisions (Bols et al., 2001).

Regarding the effect of tax treaties, it is not clear whether they actually encourage FDI to developing countries. Although there are some studies that demonstrate a positive impact of tax treaties on FDI in high income countries, only very limited research on this topic has been undertaken with respect to developing countries. A recent study did find a positive relation between signing a tax treaty and FDI in developing countries, but noted that this finding only applied to middle income countries and not to lower income countries (Neumayer, 2007). Hence, there is no conclusive evidence that the overall effect of concluding a tax treaty with the Netherlands is positive for a developing country.

### 2.5.4 Estimate of missed tax revenues

In order to illustrate the magnitude of consequences for developing countries, a rough estimate can be made of the missed tax revenues in those countries due to tax avoidance constructions involving Dutch SPEs. Data made available by DNB on the geographical composition of SPE inward and outward investment stocks and flows confirms that SPEs are also used as vehicles for investment in developing regions. Estimates of missed

tax revenues still involve many assumptions, however, because the calculations require other data as well, for example about the composition of SPE income, that is not yet available. The estimates are therefore necessarily imprecise. Furthermore, the DNB data group countries by geographical region and this requires several corrections to exclude high income countries in each region. The regions below include large developing economies, such as South Africa, Brazil, China, and India. Only high income countries are excluded from the regional data only, using a series of corrections.

The first three data columns in Table 2.1, labelled 'FDI via SPEs', present investment positions of SPEs in the main developing regions of Africa, Latin America, and Asia, for the years 2003 to 2005. These investment positions are the total outward FDI stocks of SPEs, including equity investment and loans to subsidiaries, parents, and other related companies that are part of the same multinational. SPE investments in Central America have been corrected to exclude tax havens in the Caribbean.[37] SPE investments in Asia, excluding the Middle East and Japan, have been corrected to exclude Singapore, Republic of Korea, Taiwan and Hong Kong. Inward FDI stocks in these four countries account for 59% of global investment of the region and for 68% of

**Table 2.1** Inward FDI stocks via SPEs and estimates of missed tax revenues

| Region | FDI via SPEs (€ bn) | | | Total FDI (€ bn) | SPE share | Tax missed (€ bn) | |
|---|---|---|---|---|---|---|---|
| | | | | | | Est. 1[c] | Est. 2[d] |
| | 2003 | 2004 | 2005 | 2005 | 2005 | 2005 | 2005 |
| Africa | 10 | 10 | 13 | 213 | 6% | 0.098 | ..[g] |
| Latin America excl. Caribbean | 32 | 40 | 46 | 555 | 8% | 0.342 | 0.039 |
| *o/w Central America excl. Caribbean*[a] | *13* | *18* | *21* | *192* | *11%* | *0.155* | *0.009* |
| *o/w South America* | *19* | *23* | *25* | *363* | *7%* | *0.186* | *0.030* |
| Asia excl. Middle East, JP, SG, KR, TW, and HK[b] | 28 | 28 | 30 | 462 | 7% | 0.199 | 0.062 |
| Total developing regions | ~70 | ~80 | ~90 | ~1,200 | 7% | ~0.64 | ~0.11 |
| Total all countries[e] | 919 | 946 | 1,033 | ~7,800 | 13% | ~6.8[f] | ~1.8 |

Sources: DNB (unpublished data), UNCTAD (2006), authors' calculations. Notes: [a] 20% of total Central America to correct for the Caribbean; [b] 35% of total Asia excluding Middle East and Japan (JP) to correct for Singapore (SG), Rep. of Korea (KR), Taiwan (TW), and Hong Kong (HK); [c] Estimate 1: assuming 5%-point of taxes missed on 15% return on investment on inward FDI stocks; [d] Estimate 2: assuming €1 bn missed through financing constructions, proportional to non-equity stocks per region, and €0.8 bn through royalties, proportional to total royalty payments per region; [e] excluding SPEs and other FDI in the Netherlands; [f] based on all countries excluding the Caribbean and Luxembourg; [g] estimate cannot be calculated due to data problems.

[37] Total inward FDI stocks in mainland Central America and in the Caribbean, from all origins worldwide, are roughly of the same size. However, it may be expected that SPEs have relatively large investments in tax havens, and therefore it has been conservatively assumed that only 20% of SPE investment in the region is in mainland Central America, where it is strongly concentrated in Mexico.

Dutch investments by non-SPE companies.[38] Using these benchmarks, it has been conservatively assumed that the other countries in the region, including China and India, receive only 35% of total SPE investment in the region.

It is interesting to compare the investments of SPEs in developing countries with the total inward FDI stocks in these countries. The total stocks are shown in the column 'Total FDI 2005' and the proportion of total investment for each region that is channelled through SPEs is shown in the column 'Share SPEs'. This proportion ranges from 6% for Africa to 11% for Central America. On average, some 7% of all foreign investments in the main developing regions is held through Dutch SPEs. As a point of reference, the bottom row of the table shows the total for all countries worldwide excluding the Netherlands itself.

Estimating missed tax revenues requires a few further assumptions. For a relatively simple estimate, it is assumed that the pre-tax return on investment on operations in developing countries is 15%. This is in line with historical data (UNCTAD, 1999, p. 18).[39] It is further assumed that missed tax revenues amount to 5% of this pre-tax return, which is the same as assuming that on average the effective corporate tax rate abroad is lowered by 5 percentage points. This percentage can only be estimated. In some cases, missed tax revenues may be lower for example because certain arrangements involving SPEs are not that effective or because tax avoidance may be unevenly distributed among regions. Multinationals may also benefit from local tax breaks that should not be attributed to the SPEs, they may use other tax avoidance mechanisms (such as transfer mispricing) that do not involve Dutch SPEs, or they may use SPEs to avoid tax in the home rather than the host country. However, as the main purpose of SPEs is to reduce the total tax burden of multinational corporations, it is expected that as a consequence of conduit structures multinationals are able to lower the effective corporate tax rate paid in developing countries by 15 to 25 percentage points (equal to full tax avoidance). An average of 5% missed tax revenue seems a reasonable assumption.

The net gain to multinationals is always lower than the taxes missed in developing countries, due to the costs of tax planning and the lower tax charges that arise in other countries to which income is shifted. The latter include more than €1 billion of tax on the operational margins of SPEs in the Netherlands. The total missed tax revenues in all other countries worldwide must therefore be at least €1 billion and probably several times more. The simple estimate described above implies total missed tax revenues worldwide of €6.8 billion, of which some €640 million in developing regions. The estimate is shown in the table as 'Tax missed, Est. 1'. The table also includes a second estimate, based on more complex assumptions and calculations that are explained in

[38] DNB statistics, Table 12.6.4 (previously Table 5.6d), Direct investment abroad (stocks), accessed 12 Oct 2006; UNCTAD (2006).

[39] Total income on FDI received by SPEs was approximately 5%. The income reported by SPEs does not consist of pre-tax profits, however, but of interest and royalty payments and of dividends and capital gains from after-tax profits.

Annex 2.1, shown as 'Tax missed, Est. 2'. This estimate only takes into account tax avoidance strategies that involve royalty and interest payments and yields a more conservative figure of €110 million of missed tax revenues in developing regions. Taking into account that total missed taxes worldwide must be well over €1 billion, it is in fact a minimum estimate. Both estimates assume that the revenue effect of lower effective taxes is not substantially offset by increased foreign investment, as discussed above.

Only part of the missed tax revenues would be recovered were the Netherlands to take effective measures to eliminate possibilities for aggressive international tax avoidance. There are two reasons for this. Firstly, it is sometimes argued that without the international tax avoidance opportunities offered by the Netherlands, the investments in developing countries would not have taken place in the first place. However, it can be expected that this only has a marginal effect because tax considerations are usually of secondary importance in international investment decisions. Secondly, and more importantly, if harmful conduit and group financing structures would no longer be possible via the Netherlands, multinationals would change their tax planning strategies and use entities in other countries, such as Luxembourg, to achieve the same effect.

## 2.6 Coherence with development policy

### 2.6.1 Dutch development policy and previous studies on tax and development

The Netherlands aims to enhance coherence of government policy in other areas with its policy on development cooperation. Tax policy is highly relevant in this respect. The Dutch government is committed to providing high levels of donor financing, and its ODA expenditures have been fixed at 0.8% of GNP. Part of this sum is directly provided to governments of developing countries as bilateral budget support and as debt relief. Enabling multinationals to avoid taxes in developing countries, which lowers government revenues in these countries, therefore seems inconsistent with high levels of ODA to raise these budgets. There is also a more direct link between tax policy and the UN Millennium Development Goals (MDGs), aimed at halving extreme poverty by 2015. Tax issues related to MDG 8 and more specifically to two of the seven more concrete targets that have been set for MDG 8, on the financial system and on debt problems.[40] Almost by definition, international tax issues form an integral part of a financial system that is supportive of development and of a comprehensive solution for the debt problems of developing countries.

In the past, the Dutch Ministry of Foreign Affairs has already paid some attention to tax issues in development policy, especially from 2001 to 2004. In 2001, the Erasmus

[40] These are MDG Target 12 and Target 15.

University Rotterdam prepared a position paper on tax competition among developing countries for the Ministry (Bols et al., 2001). The main conclusion of the paper is that tax incentives are not usually a decisive factor for multinationals when deciding whether or not to invest in a certain developing country, so they are usually ineffective. In January 2002, two months before the Financing for Development Conference in Monterrey, Mexico, former Minister for Development Cooperation Herfkens referred to this in a speech:

*"More state financing – ODA – cannot be the only response. We also need to work out more incentives for the middle income countries [MICs]. (…) But the MICs also have to do their own homework and revise present practices. I recently learned from an Oxfam report that development countries lose large amounts of income because of the so-called fiscal measures (tax holiday). (…) The developing countries should realize that foreign investors first of all consider the enabling environment before deciding on investment. They will not deny the fiscal advantages but this is not what will attract them"* (Herfkens, 2002).

A major initiative on taxation from the Ministry of Foreign Affairs came in 2003, when it commissioned two major studies on tax policy and Dutch relations with developing countries. One study was conducted by the International Bureau on Fiscal Documentation (IBFD) and focussed on tax treaties and tax administrations in developing countries (IBFD, 2004). The conclusions of the study included the following:

- *"Generally the attribution of taxing rights in a tax treaty will limit the taxing rights of developing countries (…) and may thus lead to (…) a short-term budgetary loss.(…)*
- *A tax treaty can be viewed by the developing country as an important tool to promote its investment climate by providing foreign investors with more certainty about the tax consequences of their investment (…). Such improvements may generate additional foreign investment and employment and thus lead to increased tax revenue by way of additional corporate taxes, wage taxes, and sales taxes;*
- *Tax treaties are important instruments for tax administrations to counter tax avoidance and evasion through exchange of information and mutual assistance in the collection of taxes;*
- *Finally, it may be important from a political point of view for developing countries to conclude tax treaties (…) to strengthen international co-operation."*

The study also notes that in view of the lack of quantitative data, it is difficult to draw a definitive conclusion from the qualitative analysis, but it can safely be assumed that the hundreds of tax treaties that developing countries have concluded with developed

countries indicate that many developing countries on balance attribute positive effects to these treaties.

The other study was again conducted by the Erasmus University, and focussed on tax incentives offered by developing countries and income shifting through transfer pricing in trade with the Netherlands. With regard to tax competition, the study concludes that tax incentives might in theory be effective in attracting certain types of valuable FDI that are relatively tax sensitive, but in practice such considerations are not taken into account by developing countries when granting tax incentives, which makes them largely ineffective (Muller et al., 2004). The research finds little evidence of transfer pricing manipulation in trade with the Netherlands at the expense of developing countries. Although at the global level transfer mispricing is one of most important mechanisms for tax avoidance and evasion, this result might have been expected, because the relatively small differences in statutory tax rates do not allow large gains from transfer mispricing in trade with the Netherlands.

With hindsight, it is striking that the Ministry of Foreign Affairs commissioned elaborate studies on all main tax issues relevant to developing countries, except tax avoidance through financing and royalty constructions. It is remarkable that even the IBFD study on tax treaties left out these issues, while they may be the single largest source of concern with regard to the coherence of Dutch government policy on tax and development. Other studies on tax and financing for development (e.g. Martens, 2007) tend to overlook these particular issues as well.

It seems that after 2004, the Ministry of Foreign Affairs did not consider Dutch tax policy and international tax issues in general as highly important policy areas for development. Apparently, this is partly a result of the findings from the studies conducted by the IBFD and Erasmus University, which did not indicate any inconsistency between tax and development policy. In its MDG 8 progress reports of 2004 and 2006, the Ministry did not mention Dutch policy on tax issues (Ministry of Foreign Affairs, 2004, 2006).

Since 2007, though, the Ministry has again been paying increasing attention to coherence between tax and development policies. At the global level, the importance of tax revenues for development financing and the need for international cooperation in tax matters have been highlighted at the follow-up conference on Financing for Development, which took place end 2008. After the conference, the Dutch Ministry participated in the launch of the International Tax Compact (ITC), for example. The ITC is an initiative to strengthen international cooperation with developing countries to combat tax evasion and avoidance. In April 2009, the Ministry also joined the Task Force on Financial Integrity and Economic Development, which advocates transparency of tax-relevant information in the global financial system.

At the national level, policy coherence remains a challenge. In the first half of 2009, the Netherlands is preparing new legislation regarding the taxation of interest payments of multinationals. The new legislation may have substantial effects on the international

tax planning of multinationals and the Ministry of Finance announced it would take into account *'consequences for the relations'* with countries that have a tax treaty with the Netherlands (Ministry of Finance, 2008), which include several developing countries. However, so far there are no indications that the Ministry of Finance will also consider the effects on tax revenues for those countries themselves.

### 2.6.2 Causes of policy incoherence

Although no specific written policy of the Dutch Ministry for Development Cooperation on tax revenues in developing countries could be found, the facilitation of aggressive corporate tax avoidance can be considered incoherent with bilateral budget support and the general commitment of the Dutch government to MDG 8. The causes for this policy incoherence will now be analysed, applying the three dimensions of the analytical framework presented in the section on PCD.

First, the lack of PCD appears to be largely unintended. Many typical aspects of the Dutch international tax regime, including the participation exemption and the relatively large network of tax treaties, result from historical and country-specific factors. The Netherlands is a small country and its economy has always had a strong international focus. Tax policies have been supportive of international investment, especially outward investment by Dutch multinationals. Furthermore, many aspects are not harmful by themselves, but in combination they allow for international arbitration opportunities. The Dutch group financing regime and the proposed new measure to replace it are important exceptions. These tax facilities are intentionally attracting interest income that would otherwise be taxed abroad and policy makers must be aware of consequences for other countries.

Apart from tax revenues, attracting conduit entities and financing operations generates economic activity. The Netherlands is actively competing for such operations with Ireland, Switzerland, Belgium, Luxembourg, and the UK. Recent studies show that trust services and related financial and legal services generate approximately 3,000 jobs and a turnover of nearly €500 million in the Netherlands. Compared to other types of headquarters, though, this is relatively low (Gostelie et al., 2008; Van den Berg et al., 2008).

More explicitly, in a debate in the Dutch Senate and in meetings with the Ministry of Finance, it was emphasised that Dutch tax policies were never intended to harm developing countries. Any harmful effects for those countries are generally referred to as unintended, unwanted side effects.

Second, the incoherence is structural in nature rather that temporary. The interest of large multinationals to minimise their global tax burden through profit shifting is inherently conflicting with the interest of developing countries to increase their tax revenues. The Ministry of Finance is mainly concerned about the Dutch investment climate and has a track record of actively attracting financing activities of large multinationals.

Third, the lack of PCD appears to have both institutional and political causes. Currently institutional shortcomings are dominant, because neither the Ministry of Finance nor the Ministry of Development Cooperation systematically assesses the impact of Dutch tax policies on developing countries. However, if institutional arrangements to compare policy goals and impacts were present, this would expose the inherently conflicting policy priorities of the development and finance departments and could therefore reinforce the political barriers to PCD.

### 2.6.3 Other donor countries

For various other donor countries, there are comparable challenges regarding coherence between tax and development policy. However, while relevant development objectives are largely the same, the nature of the tax policies that are conflicting with these development objectives differs per country. Luxembourg, Switzerland, and Ireland host many conduit entities similar to Dutch SPEs that may facilitate corporate tax avoidance in developing countries. Belgium and Switzerland also offer low effective tax rates for financing companies. The effects are similar to those of the Dutch special tax facilities for financing operations.

Furthermore, Belgium, Luxembourg, Austria, and Switzerland provide banking secrecy, a traditional tax haven practice that does not exist in the Netherlands. The Netherlands serves as a tax haven for large multinationals only, facilitating tax avoidance without assisting illegal practices. In contrast, countries providing banking secrecy facilitate tax evasion and corruption, both of which are illegal, by rich individuals as well multinational firms. The related areas of policy incoherence would therefore be broader than for the Netherlands.

Finally, the US, UK, Canada, and Norway have allegedly intervened to undermine efforts of African host countries to raise tax revenues from foreign mining operations (Open Society Institute et al., 2009). From the donor country perspective, the donors' economic interests rather than their tax policies are conflicting with development goals in this case. However, the impact on tax revenues in developing countries is immediately apparent and the lack of PCD is clearly intended, which highlights the need for stronger political commitment and better institutional arrangements to address policy incoherence.

## 2.7 Conclusions and discussion

This chapter described the tax haven characteristics of the Netherlands and the operations of Dutch conduit and financing entities of multinational corporations. It can be concluded that the negative effects of Dutch tax policy for developing countries are potentially very large. On the basis of limited data, it is roughly estimated that SPEs assist in avoiding €640 million of tax revenues per year in developing regions. A more

conservative estimate arrives at €100 million per year. More precise estimations would require more detailed SPE data. The positive effects of Dutch tax policy, mainly consisting of increased investment in developing countries, are relatively small because tax considerations play a secondary role only in investment decisions.

Apart from being a tax haven for large multinationals, the Netherlands is also a donor country for international development. As such, it supports Millennium Development Goal 8 to develop an international financial system that is supportive of poverty reduction. In 2006, the Dutch government provided €4.3 billion in Official Development Assistance. Compared to this aid budget, the estimated amount of tax avoidance facilitated by the Netherlands is substantial.

It can be concluded that Dutch tax policy is incoherent with Dutch policy on development cooperation. The Ministry of Foreign Affairs already recognised the coherence aspect of tax policy and development policy in the past. However, it appears that the large role of SPEs in tax avoidance and the associated amount of missed tax revenues in developing countries have largely escaped attention until recently. The lack of policy coherence is therefore unintended, which is related to the lack of institutional arrangements to align tax and development policies. However, the causes of policy incoherence are also structural and political in nature.

Finally, it should be recognised that tax avoidance is an international problem. If the Netherlands were to eliminate opportunities for harmful tax avoidance while other countries, such as Luxembourg and Switzerland, continue to offer similar possibilities, a large part of the missed tax revenues would not be recovered. Furthermore, various other donor countries have domestic tax laws or allegedly advocated tax policies in developing countries that are incoherent with development goals as well. It would therefore be desirable that initiatives promoting policy coherence for development pay more attention to tax issues.

## Annex 2.1 Estimate of missed tax revenues

The second estimate of missed tax revenues shown in Table 2.1 is taken from Weyzig and Van Dijk (2007). It distinguishes different tax avoidance strategies and their relation to the financing structure of subsidiaries.

One tax avoidance strategy is the use of royalties and license fees to shift income to tax havens. In 2005, total receipts of SPEs for exports of services were €9.5 billion and total expenditures for imports of services were €10.2 billion.[41] It may be assumed that some €8 billion, the largest part of these flows, reflects conduit activities for royalties and license fees. It is further assumed that some €4 billion of these flows are paid onwards to pure tax havens and the rest to non-havens. If royalties are paid to a foreign affiliate to shift income out of a country, the payment is tax deductible, but additional withholding taxes may arise. Assuming a statutory corporate tax rate of 30% and a withholding tax of 10%, missed tax revenues would amount to 20 per cent of the flows to pure tax havens. This results in an estimate of missed tax revenues of €0.8 billion. The use of Dutch royalty conduits need not be related to investment positions of Dutch SPEs, because payments for the use of intangible property can also be collected from companies that are not owned or financed by Dutch SPEs. Therefore it would be more appropriate to assume that missed taxes per country due to royalty conduit structures are proportional to a country's total payments of royalties and license fees to abroad. To calculate these proportions, statistics on national payments for royalties and license fees in 2003 are used. These are taken from the balance of payment data in the UNCTAD Handbook of Statistics (2005). 2003 was the latest year for which more or less comprehensive data were available.

There will be further missed taxes due to financing constructions. The size of flows associated with financing conduits may be derived from the loans from tax havens to Dutch SPEs, which are then onlent to subsidiaries worldwide. Direct data on interest income of SPEs are not available, because they are included in the same item on the balance of payments with SPEs as dividends and capital gains. Debt financing from companies in Central America and the Caribbean to Dutch SPEs was €59 billion in 2005. However, part of these stocks may reflect investments from mainland Central America. This share is unlikely to be large, given the size of total outward FDI stocks from Mexico and Panama and the negligible outward FDI stocks of other mainland countries (UNCTAD, 2006). Therefore it can be conservatively assumed that loans from Caribbean tax havens to Dutch SPEs were €50 billion. Assuming six per cent interest on these loans when they are lent onwards, and missed tax revenues amounting to 20 per cent of these flows (similar to royalty flows), the missed tax revenues due to financing conduits would be €0.6 billion.

There will be similar financing effects from other tax havens, such as the Channel Islands that are grouped together with Russia and Eastern Europe in 'other Europe' in

[41] Data from DNB Tables T12.1 and T12.13 (previously T5.1 and T5.14), http://www.statistics.dnb.nl/index.cgi?lang=uk&todo=Balans (Accessed 4 May 2007).

the DNB data, and from the Dutch GFA regime. Together these are estimated at €0.4 billion. This is again rather conservative. According to the Dutch government, the additional government revenues from the GFA regime were €225 million per year.[42] These are the revenues from tax on the interest income of group financing companies using the GFA regime that would otherwise not be present in the Netherlands. The effective tax rate on this income is probably between 5% and 10%, depending on the use of certain reserves. Thus, if the additional tax revenue for the Dutch government is €225 million per year, the interest income must be at least €2.25 billion per year. The missed tax revenues elsewhere due to the GFA regime alone might therefore well be higher than the conservative estimate of €0.4 billion mentioned above. It is assumed that missed tax due to financing constructions is proportional to SPE debt financing stocks in a region instead of total SPE investment stocks.

Adding up these royalty and financing constructions yields the second estimate shown in the table. This estimate is more conservative with total tax avoidance of €1.8 billion, and taking into account that total missed taxes worldwide must be well over €1 billion, it is in fact a minimum estimate. It also yields a more conservative distribution over regions, with developing regions carrying a smaller proportion of the burden. Thus, developing regions are missing at least €100 million of tax revenues per year due to tax avoidance strategies of multinationals involving Dutch SPEs.

[42] Parliamentary record 30 107 No. 2, Fiscaal Vestigingsklimaat, Nota Werken aan winst: Naar een laag tarief en een brede grondslag *[Fiscal business climate, Memorandum Working on profit: Towards a low rate and a broad base]*, 29 Apr 2005, p. 22.

# 3 Tax treaty shopping

A shorter version of this chapter is being published as Weyzig, F. (In press). Tax treaty shopping: Structural determinants of Foreign Direct Investment routed through the Netherlands. *International Tax and Public Finance*. DOI: 10.1007/s10797-012-9250-z. The article is available at www.springerlink.com/content/88177q2jp438r677.

**Abstract** *Many multinationals divert Foreign Direct Investment (FDI) through conduit countries that have a favourable tax treaty network, to avoid host country withholding taxes. This is referred to as tax treaty shopping. The Netherlands is the world's largest conduit country; in 2009, multinationals held approximately €1,600 billion of FDI via the Netherlands. This chapter uses micro data from Dutch Special Purpose Entities to analyse geographical patterns and structural determinants of FDI diversion. Regression analysis confirms that tax treaties are a key determinant of FDI routed through the Netherlands. The effect of tax treaties on FDI diversion partly arises from the reduction of dividend withholding tax rates, which provides strong evidence for tax treaty shopping.*

## 3.1 Introduction

Tax treaty shopping is a particular form of tax avoidance by multinational corporations. It involves the diversion of Foreign Direct Investment (FDI) through a third country to achieve reduction of withholding taxes under favourable tax treaties (Kingson, 1981). Most countries levy withholding taxes on outgoing dividends and interest payments to foreign affiliates. Tax treaties reduce or eliminate these withholding taxes on a bilateral basis, thus providing an advantage to foreign investors from the partner country. When multinationals engage in treaty shopping, they may obtain benefits that a host country would otherwise not provide to them.

This chapter analyses how tax treaties and other structural determinants influence the diversion of FDI. Only a few other articles have analysed treaty shopping before, using micro data from a single home or host country (Collins & Shackelford, 1998; Weichenrieder & Mintz, 2008). This study contributes to existing literature by presenting the first empirical analysis of worldwide FDI routed through a specific third country. It is also the first academic study that uses micro data from Dutch Special Purpose Entities (SPEs). The results provide strong evidence for tax treaty shopping via the Netherlands, which is relevant for international tax policies. The findings have major implications for further research on tax treaties and other research using bilateral FDI data as well.

The structure of this chapter is as follows. Section 3.2 provides background on treaty shopping and discusses related research. Next, Section 3.3 describes the Dutch micro data and geographical patterns of FDI routed through the Netherlands. Section 3.4 uses regression analysis to identify determinants of FDI diversion. Section 3.5 presents conclusions, policy implications and a discussion of limitations to this study.

## 3.2 Background on treaty shopping and FDI diversion

### 3.2.1 Tax treaties and treaty shopping

In theory, the main purpose of tax treaties is to remove tax barriers to international economic activity. Tax treaties prevent double taxation by allocating taxing rights between the host country, where the income arises, and the home country, where the beneficiary of the income resides. This provides legal certainty to foreign investors. Withholding tax reductions limit the taxing rights of the host country and are a core element of tax treaties.

In practice, many countries have also adopted unilateral measures to prevent double taxation, such as a tax credit or exemption for income that has been taxed abroad. Where such unilateral measures exist, tax treaties merely confirm these. Some argue that treaties may still signal that the host country is committed to international investment rules (Barthel, Busse, Krever, et al., 2010). This is especially relevant for developing

countries. However, the reputation of a country's tax administration may be more important than the number of treaties in place and the value of legal certainty should not be exaggerated (Thuronyi, 2010). Some treaties also serve specific purposes other than attracting FDI (Pistone, 2010). Nonetheless, tax treaties do offer benefits to foreign investors. An example is a reduced withholding tax on dividends paid to a parent in a country that exempts these dividends from tax. In this case, the withholding tax cannot be recovered by the company and the reduced rate is a real benefit.

Tax treaties themselves do not provide a formal definition of treaty shopping. However, Article 22 of the 2006 US model treaty, on anti-treaty shopping provisions, provides an implicit description: '*residents of third countries […] benefiting from what is intended to be a reciprocal agreement between two countries*'.[43] For the purpose of this research, tax treaty shopping is defined more specifically as the diversion of FDI through an intermediate country to achieve reduction of withholding taxes under favourable tax treaties (Kingson, 1981). To this effect, a tax treaty must exist between the host and intermediate country (Kandev, 2009; OECD, 1986). Diverted FDI is defined as FDI into an intermediate country that is then reinvested as FDI in another country.[44] The investment may pass through various entities in the intermediate country and undergo transformations, for example from an intra-group loan into an equity investment.[45] This definition excludes investments that entities in the intermediate country finance by issuing bonds or obtaining other external funding themselves.

Tax treaty shopping has received substantial attention in legal analyses since the early 1980s. Many of these focus on the use of Dutch conduit entities and on attempts of the US to limit tax avoidance via conduit structures. They generally regard the Netherlands as a key intermediate country, mainly due to its extensive and favourable tax treaty network (Avi-Yonah, 2009; Dolan & Walsh Weil, 1995; Kingson, 1981; Wacker, 1993).

Certain clauses in tax treaties can inhibit treaty shopping. One type, limitation on benefits (LOB), specifies detailed objective criteria that an investor must meet to qualify for treaty benefits. These criteria exclude conduit entities. Before 2007, the only Dutch tax treaty with LOB was the Netherlands-US treaty. A second type, a main purpose test, is subjective and denies treaty benefits if an investment relation is established or maintained mainly for the purpose of securing these benefits. This clause is more common, but may be difficult to apply, because the host country tax authority would need to assess the operations of foreign entities to determine their purpose. Before 2007,

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[43] The Dutch Ministry of Finance provides a similar description in its 2011 memorandum on tax treaty policy*: "a resident of a third country gains access to a treaty benefit that is not intended for this person"*.

[44] Between the ultimate home and host countries, FDI may be diverted several times.

[45] This is similar to the definition of *a "conduit arrangement"* in the 2008 amendment to the UK-Switzerland tax treaty.

a main purpose test for dividends was included in 17 Dutch tax treaties.[46] Since 2007, the Netherlands includes a main purpose test or LOB in new and amended tax treaties more often.[47]

Host countries generally disapprove of treaty shopping, because it breaches the principle of reciprocity and treaty benefits are not intended for investors from third countries (Kandev, 2009; Lee, 2009; OECD, 1986). Indeed, some developing countries regard treaty shopping as a major challenge for the taxation of multinational firms (Heggstad, 2011). This raises the question why many countries, including most Dutch treaty partners, conclude treaties without anti-treaty shopping provisions. Legal cases illustrate that these countries, too, find treaty shopping abusive. Examples are the *Prévost* case in Canada, involving a Dutch conduit (Kandev, 2009), and the *Andolan* case in India, involving a Mauritian conduit (Baistrocchi, 2008). However, these cases do confirm that a tax treaty allows treaty shopping unless it contains explicit countermeasures.

To date, there exist only a few empirical economic studies on treaty shopping. Collins and Shackelford (1998) examine the effect of withholding and home country taxes on cross border payments between foreign affiliates of US firms. They find that internal dividend and interest flows are structured in such a way as to mitigate taxes and conclude that the results are consistent with treaty shopping. A key difference with this study is that Collins and Shackelford use income flow data instead of data on diverted capital stock. The different methodologies make the results difficult to compare. Weichenrieder and Mintz (2008) provide the only direct evidence of treaty shopping so far. They show that higher bilateral withholding taxes to and from Germany substantially increase the probability that outward and inward FDI is diverted via a third country. A key difference with this study is that Weichenrieder and Mintz analyse the probability that multinationals use a conduit entity rather than the proportion of diverted FDI stock.

### 3.2.2 Tax treaties and FDI

Other studies have analysed the effect of tax treaties on bilateral FDI without accounting for the possibility of treaty shopping. All these studies use gravity models with dummy variables for the existence of tax treaties. From a development perspective, the main question behind these studies is whether developing countries gain from concluding tax

[46] These include the treaties with Croatia, Egypt, Estonia, Jordan, Lithuania, Malta, and Tunisia. In these treaties, the main purpose test apparently serves to prevent avoidance of Dutch withholding tax, because the partner countries do not levy any withholding tax on dividends.

[47] The new or amended treaties with Panama, Hong Kong (HK), Japan, and Barbados (BB) include a LOB clause. Those with the United Arab Emirates (AE), Bahrain (BH), Qatar (QA), the UK, Mexico, and South Africa contain a main purpose test. In some cases, notably AE, BB, BH, HK, and QA, this targets treaty shopping of foreign investment in the Netherlands rather than treaty shopping of foreign investment in other countries via Dutch conduit entities. The new or amended treaties with Ghana, Azerbaijan, and Saudi Arabia do not include anti-treaty shopping provisions.

treaties due to higher inward FDI that more than compensates for the tax benefits granted to foreign investors, such as the lowering of withholding tax rates.

A few studies use micro data. One study using US firm data finds that tax treaties do not make investments in a country more attractive (Louie & Rousslang, 2008). By contrast, a study using Swedish firm data finds that the probability of establishing a foreign subsidiary is higher in countries that have a tax treaty with Sweden. However, it finds no effect on the total sales of all Swedish firms in a country, suggesting that tax treaties do not increase overall economic activity (Davies et al., 2009).

Several other studies use macro data from the US, which cover a wide range of partner countries. Early studies found that US outbound FDI does not increase because of tax treaties (Blonigen & Davies, 2004) or renegotiations of existing treaties (Davies, 2003). However, newer studies find some heterogeneous effects. Neumayer (2007) finds that tax treaties increase FDI to middle income countries, but not to low income countries. Millimet and Kumas (2008) find positive effects for country pairs that initially have relatively low bilateral investment and negative effects for country pairs that already have relatively high investment.

Some other studies use bilateral FDI data from the OECD or UNCTAD. These data sets cover a range of home as well as host countries, but data quality is generally poor (Zhan, 2006), which may affect results. Broader data sets facilitate methods that control for the endogeneity of concluding a tax treaty. This is an important issue to the gravity models: two countries may decide to conclude a tax treaty because they have close economic relations, rather than bilateral FDI following the conclusion of a treaty. However, even if FDI grows faster after a treaty has been signed, this does not necessarily imply a causal relationship. Broad economic reforms of low and middle income countries that opened up to foreign investors may explain both the increasing number of tax treaties and the rise in FDI (Barthel, Busse, Krever, et al., 2010). Even the more advanced studies, using broad data sets and controlling for endogeneity, may therefore not provide conclusive evidence that certain FDI patterns are the result of tax treaties.

Blonigen and Davies (2008) distinguish between old and new treaties. Old treaties were mainly concluded between economies with strong historical ties and therefore largely endogenous. The authors find that old treaties are associated with higher and new treaties with lower FDI. This result seems consistent with the heterogeneous results mentioned above, because old treaties were probably concluded between countries with relatively high existing investments and with middle rather than low income countries. Newer studies with broad data sets use more advanced methods to control for endogeneity, producing mixed results. Egger et al. (2006) find negative effects of tax treaties on FDI, whereas Coupé et al. (2008) find no significant effects. Barthel et al. (2010), who use a dataset with extended coverage of developing countries, find positive effects, including for FDI into low income countries when controlling for endogeneity.

Siegman (2007) also finds positive effects. Thus, results regarding the effect of tax treaties on bilateral FDI have been mixed.

Researchers that found insignificant or negative effects have attributed these to FDI-reducing aspects of tax treaties, such as enhanced transfer pricing regulation, exchange of information between tax authorities, and anti-treaty shopping provisions (Blonigen & Davies, 2008; Davies et al., 2009). However, this explanation seems inconsistent with the diversion of FDI through third countries to take advantage of tax treaties. Leaving aside data flaws, an alternative explanation would be that tax treaties facilitate repatriation of income from foreign subsidiaries. These transactions are recorded as negative FDI inflows, because they reduce the capital of subsidiaries, offsetting positive FDI inflows related to new investments. Thus, tax treaties may increase FDI flows between parents and subsidiaries in both directions, and it is not self-evident whether the balance will be positive, neutral, or negative.

If tax treaties increase bilateral FDI, this may to some extent result from treaty shopping (Thuronyi, 2010). The diversion of inward FDI from non-treaty countries through treaty countries affects the apparent origin of investments. The UK Office for National Statistics calls this the *'Netherlands effect'*, although it occurs for other countries as well (Wilkie, 2010). FDI diversion via a treaty country leads to overestimation of the effect of the treaty on bilateral FDI originating from that country itself. Furthermore, after a host country concludes additional treaties, new investments might no longer be diverted. This increases the apparent effect of new treaties. However, changes in investment route do not affect total inward FDI from all countries combined. Only Neumayer (2007) has analysed the effect of tax and investment treaties on total FDI. He finds that tax treaties increase FDI to middle income countries, but not to low income countries. Most studies are not robust to treaty shopping, though, which makes empirical results on treaty shopping highly relevant.

### 3.2.3 Alternative reasons for FDI diversion

For the analysis of FDI diversion, it is important to distinguish conduit entities from so-called base companies and mixing companies. The last two are used by multinationals from home countries that tax the income of foreign subsidiaries, such as the US.[48] The tax on this income is usually offset by a tax credit equal to the tax already paid abroad and thus arises only if the foreign tax rate is lower. Furthermore, the tax is normally deferred until the income is repatriated in the form of dividends. If a multinational invests abroad via a base company in an intermediate country, it can reinvest the income of subsidiaries via the base company and avoid the home country tax (Desai et al., 2003). A multinational can also use an intermediate holding to mix dividends from low-tax and high-tax countries. This allows to offset taxes paid in different countries against

[48] The UK and Japan recently switched from credit to exemption systems for foreign dividend income, but many structures set up in response to past tax rules are still in place.

each other when the dividends are paid onwards to the ultimate parent, which may not be possible if the ultimate parent holds the subsidiaries directly (Dolan & Walsh Weil, 1995).

Thus, dividend conduits aim to avoid withholding taxes levied by host countries, whereas base and mixing companies take withholding taxes into account as well but primarily aim to avoid home country taxes. Base and mixing companies are established in countries that exempt foreign dividend income and have a favourable treaty network, such as the Netherlands. They can be difficult to distinguish from conduits, because they involve similar holding structures.

Analogous to tax treaties, Bilateral Investment Treaties (BITs) can also be a reason for FDI diversion.[49] Investment treaties enhance protection of foreign investors in developing or emerging countries against expropriation and unfavourable policy changes (Fortanier & Van Tulder, 2007). The Netherlands has a relatively large network of almost 100 investment treaties and these contain a broad definition of investors that facilitates treaty shopping. As of June 2011, out of approximately 400 claims under BITs worldwide, at least 29 cases involved Dutch intermediate holdings with a foreign parent or controlling shareholder that sought protection through a Dutch BIT (Van Os & Knottnerus, 2011).

### 3.2.4 Potential determinants of FDI diversion

On the basis of the literature discussed above, some potential determinants of FDI diversion can be identified. First, normal FDI is largely explained by gravity factors and this may also apply to diverted FDI. To put it differently, FDI diversion through the Netherlands may partly follow the same pattern as normal FDI to and from the Netherlands, regardless of treaty benefits. Second, due to tax treaty shopping, one would expect that FDI diversion is higher via tax treaty routes that reduce withholding taxes. In addition, home country taxation of foreign dividend income probably increases FDI diversion because of deferral and mixing strategies. Third, one might expect that FDI diversion is higher via investment treaty routes. Fourth, due to signalling effects, a high number of tax and investment treaties may reduce the need for protection under a specific bilateral treaty and therefore reduce FDI diversion. These potential determinants form the basis for the empirical analysis in this chapter.

[49] Investment treaties can also be an important secondary consideration when fiscal reasons are the main driver for FDI diversion and various conduit countries offer similar tax benefits.

## 3.3 Description of FDI routed through the Netherlands[50]

### 3.3.1 Dutch conduit entities

Before presenting the analysis of treaty shopping, this section describes the Dutch micro data and geographical patterns of FDI routed through the Netherlands.

The Netherlands is the world's largest conduit country for FDI. At the end of 2009, FDI diverted via the Netherlands amounted to approximately €1,600 billion.[51] This corresponds to 13% of global inward FDI stock. US micro data show that the Netherlands hosts more intermediate holdings for outward investments of large US firms than any other country (Desai et al., 2003). In addition, German micro data show that the Netherlands ranks first in number of intermediate holdings, and second in value of pass-through investment stock, for FDI to and from Germany (Weichenrieder & Mintz, 2008).

This chapter uses Dutch micro data on conduit entities. These entities are identified by the central bank (DNB). By definition, they hold mainly financial or intangible assets and most or all of their assets and liabilities are foreign.[52] Usually they do not conduct real business activities. At the end of 2009, there were approximately 11,500 such entities (DNB, 2009b, 2010). The central bank collects detailed survey data on annual investment positions and monthly transactions of some 1,000 entities that account for approximately 90% of total conduit entity assets. Participation to the surveys is obligatory under Dutch law. The analysis mainly uses micro data from 2006 and 2007.

Activity codes, establishment dates, and data on ultimate parents of conduit entities were not available from the central bank and were obtained from the Reach database of Bureau van Dijk.[53] Over 60% of conduit entities is a financial holding, according to their national activity classification. This corresponds to activities of holding companies (activity code 6420) under the European NACE Rev. 2 classification system. Furthermore, 30% is registered as not commercially active, meaning that they do not conduct business outside the group. Most entities are not just located in the Netherlands for historical reasons: 50% was established after 1995 and 95% after 1970. These characteristics are consistent with treaty shopping purposes.

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[50] Access to the anonymised micro data used for this research was obtained from De Nederlandsche Bank in cooperation with Statistics Netherlands, subject to DNB's disclosure policies, see http://www.dnb.nl/en/statistics/statistische-microdata/index.jsp. The interpretation of the data is solely the responsibility of the author.

[51] Calculated as €1,918 bn of conduit entity FDI assets minus €327 bn of securities issued to finance FDI; the latter follows from €435 bn of total securities issued by conduit entities minus €108 of debt securities issued to finance portfolio assets. This is consistent with the reported €1,650 bn of conduit entity FDI liabilities. Source: DNB, http://statistics.dnb.nl, tables 9.1, 12.10 and 12.14 (accessed 19 Sep 2011).

[52] For conduit entities with the same ultimate parent, these criteria apply to the cluster as a whole.

[53] This is a commercial database that integrates data from national company registers. Ultimate parents are defined as companies that own an SPE through shareholdings of more than 50% at each step in the ownership chain and that are not known to be majority owned by another company.

Some entities belong to the same ultimate parent. Within these clusters, balance sheets are consolidated as much as possible by netting out Dutch intra-group equity and loan positions. Each cluster or individual conduit entity not belonging to a cluster will be referred to as a Special Purpose Entity (SPE), in line with OECD terminology (OECD, 2008b). After removing some 100 SPEs that hold portfolio investments only, the dataset has approximately 525 to 575 SPEs per month.

### 3.3.2 Parent companies and home countries

Table 3.1 shows the main individual origin countries for all SPEs in the dataset. The top seven countries are the same for direct and ultimate parents and include the largest economies. They also include the Netherlands Antilles and Luxembourg, two other countries with many intermediate holdings.[54] It is remarkable that over 40% of US ultimate parents hold their Dutch SPEs indirectly via another country. This figure is consistent with Desai et al. (2003). The average proportion for all Dutch SPEs is approximately 25%.

### 3.3.3 Destinations of diverted FDI

To analyse diverted FDI stocks, the SPE data require additional processing. Approximately 50 SPEs, representing 10% of total assets, belong to a banking group. In international investment statistics, cross border loans between SPEs and foreign banks are always regarded as external loans, even if the counterparty is affiliated. Yet due to the nature of SPE operations, most of these loans are probably intra-group. All loans

**Table 3.1** Geographical distribution of parent companies of Dutch SPEs

| Country | Direct parents | Ultimate parents |
|---|---|---|
| United States | 10% | 17% |
| United Kingdom | 13% | 13% |
| Netherlands Antilles | 9% | 7% |
| Luxembourg | 9% | 6% |
| France | 5% | 6% |
| Germany | 7% | 5% |
| Japan | 6% | 5% |
| Other countries | 40% | 41% |
| Number of SPEs | 822 | 680 |

Source: DNB (2009c), author's calculations. Note: the table includes all SPEs in any of the reporting populations from April 2003 to December 2007 for which ownership data were available.

[54] The large share of direct parents in the Netherlands Antilles is partly due to historical reasons. The number of ultimate parents in these countries is overstated due to incomplete ownership data.

**Table 3.2** Country groups for the description of geographical patterns

| Country group | Description |
|---|---|
| (1) Developing without treaty | 38 low and 67 middle income countries that do not have a tax treaty with the Netherlands. |
| (2) Developing with treaty | 11 low and 25 middle income countries (other than the emerging economies below) that have a tax treaty with the Netherlands. These countries are probably most vulnerable to treaty shopping, because they have limited capacity to implement anti-avoidance measures and a relatively weak position in tax treaty negotiations (Pistone 2010), which are highly complex (Thuronyi 2010). |
| (3) BRICSM | The six major emerging economies Brazil, Russia, India, China, South Africa and Mexico. All six have a tax treaty with the Netherlands and receive substantial FDI via Dutch SPEs. In contrast to developing countries, they can implement advanced anti-avoidance measures and negotiate tax treaties with high income countries on an equal basis. |
| (4) EU | All EU-27 countries except Luxembourg, Belgium, Ireland, and the Netherlands itself. Within the EU, no withholding taxes apply on cross border transactions with affiliated entities, except in a few host countries with transitory arrangements. |
| (5) Other high income | 30 non-EU high income countries, including the US, Japan, Hong Kong, and Singapore. 17 of these had a tax treaty with the Netherlands. Hong Kong singed one in 2010; as of 2007, it was the only high income territory outside the Dutch tax treaty network where Dutch SPEs had substantial positions. |
| (6) Tax haven islands | The eight tax havens that are no OECD members where liabilities of Dutch SPEs are largest. These are the Netherlands Antilles[a)], Aruba, Bermuda, British Virgin Islands, Cayman Islands, Guernsey, Jersey, and Puerto Rico.[b)] They are high income countries with some degree of autonomy, belonging to the Kingdom of the Netherlands, the UK, and the US. All have zero corporate tax regimes.[c)] Only the Netherlands Antilles and Aruba have tax treaties with the Netherlands. Tax treaties of the UK and the US do not extend to their tax haven dependencies. |
| (7) OECD tax havens | The four OECD member countries Luxembourg, Ireland, Belgium and Switzerland, which can also be regarded as tax havens for multinationals because of their special tax regimes.[d)] In contrast to tax haven islands, these four countries have many tax treaties. |

Notes: [a)] In 2007, the Netherlands Antilles consisted of Curacao, where most financing companies are located, and four smaller islands. In 2010, Curacao became a separate jurisdiction and inherited the Netherlands Antilles' tax treaty. [b)] In 2007, Cyprus fell just outside this group, while investments from Cyprus via Dutch SPEs were strongly increasing. [c)] Bermuda and Cayman Islands do not levy corporate income tax. Puerto Rico exempted US manufacturing companies (Grubert & Slemrod, 1998); it phased out this regime by 2006 and introduced special tax allowances instead. In 2007, the other five island havens exempted international financing companies. [d)] Belgium has a notional interest deduction scheme resulting in low tax rates for equity-funded corporations that lend to affiliates. In Switzerland, some cantons offer a low-tax environment. For special tax characteristics of Ireland and Luxembourg, see Mutti and Grubert (2009).

between banking group SPEs and foreign banks are therefore reclassified as intra-group loans.[55] Furthermore, the assets of some SPEs are substantially larger than total liabilities plus equity. To make both sides of the balance sheet match, a liability item with unknown origin is created where necessary.

The description of geographical patterns distinguishes seven country groups on the basis of tax, economic and political criteria. The classification also takes into account the amount of detail that is allowed by confidentiality requirements. Table 3.2 presents a description of the different country groups, which are mutually exclusive.

Table 3.3 shows some tax system characteristics of the seven country groups. Note that non-EU high income countries on average have a relatively low number of tax treaties, but this is because the group includes minor countries with no tax treaties at all, such as Equatorial Guinea, Gibraltar, and the Bahamas. The data on average withholding taxes[56] (WHT) confirm that the standard rates for dividend (div.) and interest (int.) payments are substantially higher than the rates for payments to the Netherlands.

**Table 3.3** Tax system characteristics and inward FDI positions (€ bn)

| Country group | Country average (unweighted) | | | | | Total for country group | | |
|---|---|---|---|---|---|---|---|---|
| | Number of tax treaties | div. WHT (no treaty) | div. WHT to NL | int. WHT (no treaty) | int. WHT to NL | Total inward FDI | Inward FDI via Dutch SPEs | Share via Dutch SPEs |
| (1) Developing without treaty | 6 | 11% | 11% | 14% | 14% | 309 | 19 | 6% |
| (2) Developing with treaty | 37 | 11% | 5% | 14% | 7% | 582 | 53 | 9% |
| (3) BRICSM | 63 | 4% | 3% | 16% | 9% | 929 | 54 | 6% |
| (4) EU[a,b)] | 64 | 12% | 0% | 11% | 2% | 3,420 | 710 | 21% |
| (5) Other high income[a)] | 27 | 12% | 4% | 11% | 7% | 3,322 | 243 | 7% |
| (6) Tax haven islands | 1 | 3% | 3% | 6% | 6% | 91[c)] | 103 | ..[c)] |
| (7) OECD tax havens | 66 | 24% | 0% | 9% | 0% | 831[d)] | 351 | 42%[e)] |
| All countries[b)] | 23 | 11% | 7% | 13% | 10% | 9,481 | 1,533 | 16% |

Sources: see Table 3.6. Notes: Tax treaty and withholding tax data as of end 2007, average of end-2006 and end-2007 for total inward FDI, and SPE positions as of 30 June 2007; [a)] excluding tax havens; [b)] excluding the Netherlands; [c)] total inward FDI excluding Jersey, Guernsey, and Puerto Rico because data are unavailable; [d)] €1,501 bn if Luxembourg SPEs are included; [e)] 23% if Luxembourg SPEs are included.

[55] Also in contrast to investment statistics, capital or loans provided by Dutch SPEs to their foreign parents are counted as positive assets, because this describes SPE positions in the most useful way.

[56] WHT data based on 170 countries for which data were available. Most countries and tax treaties define various rates. This study uses the maximum rate for large non-financial parent companies that hold a controlling stake in the host country entity, are not owned by a government, and are not subject to anti-avoidance provisions or based in a tax haven. Furthermore, for normal host countries, it disregards special rates for companies operating in a particular zone or industry. For tax haven host countries, in contrast, it uses the special rates for international financing companies, if applicable.

The last columns show total inward FDI stocks for each country group and investments held via Dutch SPEs. In absolute terms, the EU is by far the largest destination of Dutch SPE investments. However, diverted FDI in developing countries is also substantial, over €70 billion in total. It accounts for 9% of all inward FDI for Dutch treaty partners and 6% for other developing countries. The relatively small difference between these shares is remarkable, because the tax advantages that can be obtained in the absence of a tax treaty are more limited. SPE investments in the second country group may still benefit from relatively generous unilateral tax relief or protection under investment treaties, though. Dutch SPE investments in BRICSM countries are relatively modest, partly due to the well-known use of other conduit countries, notably Hong Kong for China and Mauritius for India.

### 3.3.4 Origin and destination combinations

For further analysis, an origin and destination matrix is generated for each SPE by proportionally attributing the various country group destinations to the country group origins. Next, all matrices are added up to a total matrix for all SPEs combined. The general methodology for constructing origin and destination matrices is described in Annex 7 to the OECD Benchmark Definition on FDI (OECD, 2008b).[57]

Table 3.4 presents an origin and destination matrix for Dutch SPEs as of 30 June 2007. The destination dimension includes FDI assets only and distinguishes the seven country groups mentioned above. The origin dimension includes all types of financing, thus also securities, liabilities to domestic non-SPE affiliates, and obligations to non-affiliated companies. On the origin side, all developing and emerging economies are combined into a single group for confidentiality reasons. Furthermore, there are two additional categories: the Netherlands itself, in case of domestic non-SPE affiliates or shares issued in the Netherlands; and capital of unknown origin, as explained in the previous section. Various cells have been merged for confidentiality reasons.

The matrix shows that the EU is by far the largest origin of investments via Dutch SPEs. OECD member tax havens are also a large source of SPE funding, partly because of debt securities issued by SPEs listed in Luxembourg and Switzerland. Developing and emerging economies are mostly net FDI importers and a relatively minor origin of Dutch SPE financing. SPE liabilities to and direct investments in non-EU countries that do not have a tax treaty with the Netherlands are only 5-10% of the total. The main origins and destinations of this kind are British tax haven islands, Puerto Rico, Hong Kong, and some developing countries. On the liability side, these positions consist partly of loans from tax haven affiliates. The Netherlands does not impose a withholding tax on interest payments, so these loans do not require a tax treaty to reduce withholding

[57] Some SPEs have negative balance sheet positions. These reflect a negative valuation of investments on the assets side or negative net worth reported as negative equity on the liabilities side, for example. The matrix calculations include rules to prevent attribution of positive assets to negative liabilities (as a negative proportion) and vice versa.

**Table 3.4** Dutch SPE investments by direct origin and destination (€ bn)

| | | Direct origin of capital | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | (1)-(3) | (4) | (5) | (6) | (7) | NL | Unknown | Total |
| Destination | (1) Developing without treaty | 32 | 11 | | 4 | 3 | | 85 | 19 |
| | (2) Developing with treaty | | 32 | | | 7 | 1 | | 53 |
| | (3) BRICSM | | 23 | 4 | 17 | | | | 54 |
| | (4) EU | | 386 | 77 | 28 | 151 | 36 | | 710 |
| | (5) Other high income | | 142 | | 86 | | | | 243 |
| | (6) Tax haven islands | | 180 | | 231 | | | | 103 |
| | (7) OECD tax havens | | | | | | | | 351 |
| | Total | 32 | 636 | 220 | 120 | 344 | 96 | 85 | 1,533 |

Source: DNB (2009c), author's calculations. Note: Investment positions as of 30 June 2007.

taxes. On the asset side, SPE investments in non-treaty countries could be motivated by unilateral tax relief or investment protection, as explained above.

Approximately a quarter of the SPE investments are intra-EU. At present, there are no withholding taxes inside the EU that SPE structures may help to avoid. However, historical reasons may play a role and some companies may find it convenient to use a single structure for investments inside and outside the EU. Finally, a substantial share of investments is routed from tax havens via Dutch SPEs into other tax havens. This suggests that some Dutch SPEs are part of SPE chains and serve other purposes than tax treaty shopping.

Table 3.5 presents a different origin and destination matrix that shows the ultimate ownership of SPE investments. In this matrix, all SPE assets are attributed to the origin of the ultimate parent instead of the origins of direct counterparties. On several points, the origin of ultimate parents differs markedly from the direct origin of SPE capital.

Investments of unknown origin are much higher, because ultimate parents could not always be identified. This problem occurs most often in the case of direct parents in tax havens, which tend to be highly secretive. Tax haven islands are a minor ultimate origin, because most SPE liabilities in these countries are to affiliated financing entities and ultimate parents that could be identified are usually located elsewhere. Ultimate parent positions from OECD tax havens are also much smaller than direct counterparty positions, partly because of ownership chains and partly because of debt securities listed

**Table 3.5** Dutch SPE investments by ultimate home and destination (€ bn)

| | | Origin of ultimate parent | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | (1)-(3) | (4) | (5) | (6) | (7) | NL | Unknown | Total |
| Destination | (1) Developing without treaty | 60 | 47 | | 5 | | | 200 | 19 |
| | (2) Developing with treaty | | | | | | | | 53 |
| | (3) BRICSM | | 30 | 4 | 69 | | | | 54 |
| | (4) EU | | 490 | 94 | | | | | 710 |
| | (5) Other high income | | 213 | | 20 | | | | 243 |
| | (6) Tax haven islands | | 186 | | 116 | | | | 103 |
| | (7) OECD tax havens | | | | | | | | 351 |
| | Total | 60 | 770 | 293 | 11 | 130 | 69 | 200 | 1,533 |

Sources: DNB (2009c) and Reach database, author's calculations. Note: Investment positions as of 30 June 2007.

in these countries. Other country groups have larger share in ultimate ownership of SPEs than in the direct origin of SPE capital. Focussing on entities whose ultimate parents could be identified, the EU and other high income countries (other than tax havens) are the ultimate home countries for approximately 80% of all direct investment by Dutch SPEs.

## 3.4 Empirical analysis of treaty shopping

### 3.4.1 Empirical specification

The previous section showed that the main origins and destinations of SPE investments are countries that have a tax treaty with the Netherlands. This section analyses if treaty shopping is a reason for that geographical pattern, by identifying structural determinants of FDI diversion. Using regression analysis, at the level of country pairs, it tests which variables influence the proportion of bilateral FDI stock that is diverted through the Netherlands.

On the basis of existing literature, various potential determinants were identified: gravity factors, tax variables, investment treaties, and variables reflecting the general

treatment of foreign investors. The analysis uses two alternative types of tax variables: general tax system indicators and more detailed measures modelling the benefits of specific tax strategies.

The general tax indicators are dummy variables for the existence of a Dutch tax treaty route, for a direct tax treaty between the home and host country, and for the taxation (non-exemption) of foreign profits by the home country. One would expect that a Dutch treaty route increases FDI diversion because of potential treaty benefits, whereas a direct treaty decreases it because the reduction of withholding taxes under a direct treaty lowers the potential benefits of FDI diversion. Furthermore, non-exemption of foreign profits might increase FDI diversion due to potential dividend deferral and mixing benefits.

The strategy-specific tax benefits reflect the reduction of the total tax on income generated in the host country, taking into account bilateral withholding taxes and the home and host country tax systems. The analysis focuses on distributed profits, because almost 80% of diverted FDI consists of equity investments.[58] Regressions with strategy-specific variables include a measure for dividend conduit benefits and for either base or mixing company benefits.[59] These variables distinguish Dutch tax treaties that provide large withholding tax reductions from others that provide smaller reductions or none at all. It is expected that all strategy-specific benefits increase FDI diversion.

All regressions include separate gravity variables for the home and host country. It is expected that stronger gravity factors are associated with higher FDI diversion. Furthermore, the regressions include two investment treaty dummies. Similar to the general tax variables, it is expected that a Dutch BIT treaty route increases FDI diversion and a direct BIT decreases it. The regressions use the host country's total numbers of tax and investment treaties as proxies for its general commitment to protect investors. If treaties have a signalling role, one would expect a negative effect on FDI diversion.

The analysis controls for two alternative reasons for FDI diversion. First, firms from outside Europe may establish European headquarters in the Netherlands and these headquarters may also qualify as SPEs. Second, investors may use a conduit country to reduce exposure to corruption in home or host countries.[60] It is expected that the possibility of European headquarters and higher corruption in the home or host country increase FDI diversion.

Treaty shopping benefits probably have a decreasing marginal effect on the share of diverted FDI. The reason is that most large multinationals, which account for a substantial share of total FDI, may divert investments even if this yields only a small

[58] Avoidance of capital gains tax on the potential future sale of a foreign subsidiary can also be a reason for diversion of equity investments.

[59] If both measures would be included simultaneously, the effect for country pairs where the host country has the lowest tax rate would be modeled largely independently from pairs where the home country has the highest rate. This would not provide useful information about overall tax strategies.

[60] This is especially relevant for joint ventures between companies from different countries.

reduction in effective tax rates, because they can obtain large absolute gains. Some large multinationals may face specific barriers, though, such as historical internal ownership structures or minority shareholders that make it costly to restructure existing operations. Others may prefer less complex holding structures or may simply be more focussed on maximizing operational rather than fiscal performance. Therefore some multinationals may only divert investments if treaty shopping reduces effective tax rates by a much larger amount. To model decreasing marginal effects, most regressions use the square root of the diverted FDI share as the dependent variable. This simple transformation substantially enhances the model fit.

The empirical analysis uses Tobit estimation because the share of diverted FDI is zero for approximately 9% of observations.[61] All regressions are estimated with robust standard errors.

### 3.4.2 Regression variables

Table 3.6 provides descriptive statistics for the regression variables. By default, the regressions use data from 2007. The dependent variable, the share of FDI from an origin country to a destination country diverted via the Netherlands, is calculated as follows. First, diverted FDI is obtained from an origin and destination matrix with FDI assets and liabilities that distinguishes all individual countries and territories.[62] This matrix excludes assets financed with external debt or other non-FDI funding. Next, the diverted FDI stock is divided by the sum of the diverted and the non-diverted bilateral FDI stock. The latter is obtained from the OECD Statistics database, using inward FDI data if available.

The home country gravity variable is calculated as the ratio of non-diverted home country FDI in the Netherlands to total home country outward FDI stock. The host country gravity variable is the ratio of non-diverted FDI from the Netherlands to total host country inward FDI stock.[63] By default, data on total inward and outward FDI stocks are taken from UNCTAD statistics. However, for a few countries, UNCTAD severely underestimates total FDI stocks, so the sum of bilateral FDI stocks reported by OECD partner countries is used instead.[64]

The general tax system dummies are defined as follows. The Dutch tax treaties dummy takes the value one for pairs of countries that both have a tax treaty with the Netherlands and the direct tax treaty dummy for pairs that have a tax treaty with each

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[61] The main results of OLS regressions are not materially different, though.

[62] As far as possible, these matrices attribute equity assets to equity liabilities and loan assets to loan liabilities to reflect SPE structures more accurately. Most SPEs have one main origin country for each type of liabilities.

[63] Most regressions use the square roots of these shares to match the transformation of the dependent variable.

[64] Examples are total outward FDI stocks of Bermuda and the Netherlands Antilles as of end-2007, for which UNCTAD reports €0.1 billion and €0.7 billion, respectively, whereas the sum of bilateral inward FDI stocks reported by OECD partner countries is €14 billion and €68 billion, respectively.

**Table 3.6** Descriptive statistics for regression variables

| Variable | Mean | Sd[a] | Min. | Max. | Unit of measurement | Underlying sources |
|---|---|---|---|---|---|---|
| *Dependent variable* | | | | | | |
| Diverted FDI share | 0.11 | 0.23 | 0.000 | 1.000 | Ratio of FDI stocks | DNB, OECD |
| Diverted FDI share (root) | 0.20 | 0.26 | 0.000 | 1.000 | (Ratio of FDI stocks)$^{1/2}$ | DNB, OECD |
| *Gravity variables* | | | | | | |
| Home gravity variable (root) | 0.17 | 0.12 | 0.000 | 0.997 | (Ratio of FDI stocks)$^{1/2}$ | OECD, UNCTAD |
| Host gravity variable (root) | 0.18 | 0.09 | 0.000 | 0.498 | (Ratio of FDI stocks)$^{1/2}$ | OECD, UNCTAD |
| *General tax variables* | | | | | | |
| Dutch tax treaties dummy | 0.80 | 0.41 | 0 | 1 | Dummy | Dutch government |
| Direct tax treaty dummy | 0.72 | 0.45 | 0 | 1 | Dummy | IBFD |
| Non-exemption dummy | 0.52 | 0.50 | 0 | 1 | Dummy | E&Y, Deloitte, PwC, national sources |
| Developing host x Dutch tax treaties | 0.15 | 0.36 | 0 | 1 | *See interacted variables* | |
| Developing host x direct tax treaty | 0.17 | 0.37 | 0 | 1 | *See interacted variables* | |
| *Strategy-specific tax variables* | | | | | | |
| Dividend conduit benefit | 0 | 5 | -25 | 20 | %-point change in tax on distributed profit[b] | E&Y, Deloitte, PwC, national sources |
| Base company benefit | 3 | 6 | -18 | 35 | %-point change in tax on distributed profit[b] | E&Y, Deloitte, PwC, national sources |
| Mixing company benefit | 2 | 3 | 0 | 8 | %-point change in tax on distributed profit[b] | E&Y, Deloitte, PwC, national sources |
| Developing host x dividend conduit benefit | 0 | 3 | -25 | 12 | *See interacted variables* | |
| Developing host x base company benefit | 0 | 3 | -18 | 27 | *See interacted variables* | |
| *Investment treaty variables* | | | | | | |
| Dutch BITs dummy | 0.54 | 0.50 | 0 | 1 | Dummy | Dutch government |
| Direct BIT dummy | 0.60 | 0.49 | 0 | 1 | Dummy | UNCTAD |
| *Other control variables* | | | | | | |
| European HQ dummy | 0.20 | 0.40 | 0 | 1 | Dummy | - |
| Developing host dummy | 0.29 | 0.45 | 0 | 1 | Dummy | World Bank |
| Home corruption | 3.1 | 2.0 | 0.0 | 8.0 | Reversed CPI, 0-9 scale | TI |
| Host corruption | 4.5 | 2.3 | 0.6 | 8.6 | Reversed CPI, 0-9 scale | TI |
| Host tax treaties | 0.54 | 0.28 | 0 | 1.08 | No. of treaties / 100 | IBFD |
| Host BITs | 0.46 | 0.30 | 0 | 1.14 | No. of treaties / 100 | UNCTAD |

Note: data for end of 2007; the statistics are shown for the observations in the baseline regression. n = 1,730 for mixing company benefit, n = 1,742 for other strategy-specific tax variables, and n = 1,757 for all other variables. [a] Standard deviation; [b] see Annex 3.1.

other. If two countries are EU members, this is regarded as equivalent to having a tax treaty between them. The non-exemption dummy takes the value one if the home country does not exempt foreign dividend income for at least 95%. The investment treaty dummies are defined in the same way as the tax treaty dummies.

Note that a Dutch tax treaty route does not exist for only 20% of country pairs. The majority of these observations, 14% of all country pairs, concern developing host countries. Similarly, only 28% of country pairs do not have a direct tax treaty and almost half of these observations also involve a developing host country. The correlation between the Dutch and direct tax treaty dummies is less than 0.5, though, so the full data set contains sufficient variation to analyse the effect of treaty routes. Annex 3.2 provides a correlation matrix.

The calculation of strategy-specific tax benefits involves tax data from all individual home and host countries as well as data on dividend withholding tax rates from Dutch tax treaties and over 1,200 tax treaties between home and host countries.[65] International tax data were obtained from annual corporate tax surveys, overviews of withholding tax rates, and country profiles by Ernst & Young, Deloitte and PwC. A few data gaps were filled using national sources, mainly official websites from national tax authorities and ministries of finance, and original texts of tax treaties.

The dividend conduit benefit is defined as the total tax on profits generated in the host country that are distributed directly to the home country, minus the total tax that arises if the profits are distributed to the home country via a Dutch intermediate holding. The calculation takes into account the treatment of foreign profits in the home country. The benefit can be positive if a Dutch SPE reduces withholding taxes.[66] It can be negative if the Dutch route increases withholding taxes, even if the host and home country both have a tax treaty with the Netherlands. The average benefit is near zero, mainly because withholding tax reductions for observations with a Dutch treaty route are offset by compounded withholding taxes for observations without a Dutch treaty route,

The base company benefit is calculated in a similar manner, assuming a profit is distributed to a Dutch intermediate holding only and not onwards to the home country.[67] This benefit reflects the payoff of a deferral strategy. The mixing company benefit is defined as half of the absolute difference between the home and host country tax rates.[68] This benefit reflects the payoff of mixing dividends from low-tax and high-tax sources:

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[65] For the selection of applicable tax rates, see note 56.

[66] For example, consider a host country with 20% WHT on dividends paid to non-treaty countries, which include the home country. The Netherlands has a tax treaty with the host country, which reduces this 20% rate to 10%, and also with the home country, which reduces the standard Dutch dividend WHT from 15% to 5%. This reduces total WHT from 20% to 1-(1-0.10)(1-0.05) = 14.5%.

[67] The base company benefit may also capture structures involving a Dutch cooperative or a direct US parent that uses so-called tick-the-box regulations to create hybrid entities. Such structures can avoid Dutch WHT and home country taxation even if profits are distributed upwards.

[68] This is an approximation only, which disregards WHT and assumes that a multinational repatriates equal pre-tax profits from host countries with lower and higher tax rates than the home country. Half of the benefit is attributed to each type of host country.

it increases if the home and host country tax rates are further apart and is always positive. For home countries that exempt foreign dividend income, the base and mixing company benefits are set to zero. Annex 3.1 contains the formulas for the strategy-specific tax benefits.

The possibility of European headquarters (HQ) is captured by a dummy variable.[69] Corruption is measured using the Transparency International (TI) Corruption Perception Index (CPI) for 2007, which reflects perception of corruption by foreign investors.[70] Finally, the regression variables include a dummy identifying developing host countries (excluding BRICSM) and interactions between this dummy and tax variables, to test whether FDI into developing countries is more likely to be diverted via Dutch SPEs.

The analysis focuses on diversion of FDI via the Netherlands directly into normal economies. Therefore it excludes tax haven host countries and round-tripping observations with the same home and host country. It also excludes observations with total FDI below €10 million. For such small positions, the diverted FDI share is relatively sensitive to potentially relevant non-reporting SPEs and to inaccuracies resulting from the proportional attribution of assets to liabilities. The baseline specification includes 100 home countries and 146 host countries. It covers a combined €563 billion of diverted FDI stocks[71] and €6,237 billion of non-diverted FDI stocks, representing roughly 75% of global FDI stocks.

### 3.4.3 Results for general tax variables

Table 3.7 shows the results of regressions with general tax variables. In the baseline specification, the home and host country gravity factors are positive and highly significant, as expected. This confirms that in part, FDI diverted via the Netherlands simply follows the same pattern as regular FDI and this need not be related to treaty benefits. If an additional 10% of a home country's total outward FDI stock is invested in the Netherlands, then the share of the country's FDI to other destinations that is routed through the Netherlands is, on average, also approximately 10 percentage points

[69] Europe is defined here as all EU-27 countries plus Norway, Iceland, Switzerland, Croatia, Bosnia-Hercegovina, Serbia and Montenegro, Albania, and Macedonia.

[70] The 2007 CPI covers 179 countries, but none of the eight major tax haven islands. For these jurisdictions, corruption is set to zero, because it is very unlikely that protection against corruption is a reason to divert tax haven investments through the Netherlands.

[71] At the end of 2007, total FDI diverted via Dutch SPEs was approximately €1,400 billion. The observations in the dataset add up to €864 billion, or roughly 60% of the total, because they exclude FDI assets attributed to unknown liabilities, round-tripping FDI, and smaller SPEs. Total diverted FDI included in the regressions is further reduced to €563 billion, because FDI into tax havens is disregarded, for €110 billion of diverted FDI corresponding data on non-diverted FDI are unavailable, and tax or control variables are missing for some minor countries.

higher.[72] This is a large effect, compared to the mean diverted FDI share of 11%. The host country gravity effect is slightly smaller.

Tax treaty effects are also significant and have the expected signs. On average, the existence of a Dutch treaty route is associated with approximately 6 percentage points more bilateral FDI being held via the Netherlands, whereas a direct bilateral tax treaty is associated with 3 percentage points less. Compared to the mean diverted FDI share of 11%, these effects are substantial as well. The tax treaty effects are additional to gravity effects and it is difficult to think of another explanation than tax treaty shopping. The effect of foreign income taxation by the home country, indicated by the non-exemption dummy, is insignificant.

The BIT effects are significant and also have the expected signs. The effects are similar in size to the tax treaty effects. This suggests that investment treaty shopping is another reason for investment diversion. An alternative explanation could be that FDI diversion is mainly driven by tax planning and the resulting structures also benefit from investment protection, or the other way around. However, there is only some 50% overlap between the Dutch tax and investment treaty networks. Therefore it is likely that tax treaties and investment treaties are both determinants of FDI diversion.

The results indicate that avoidance of home or host country corruption does not play a significant role. Furthermore, FDI diversion is not significantly reduced if host countries have more treaties. This finding does not support the idea that treaties have a signalling role.

The second regression tests whether FDI diversion via the Netherlands can be explained by European headquarters of non-European firms. The coefficient of the European headquarters dummy is significant, but negative, so this does not help to explain investment via Dutch SPEs.

The third regression excludes FDI via the Netherlands into the EU altogether. FDI in the EU accounts for a large number of observations but may follow different patterns, especially in the case of intra-EU investments, due to the high degree of economic integration. In this specification, the Dutch tax treaties coefficient becomes insignificant. That may suggest the significant effect in the first regression is due to tax treaties between the Netherlands and home countries that increase FDI diversion from non-EU countries into the EU. However, the large FDI diversion within the EU, which showed up in the description of origins and destinations, also influences the results. For non-EU host countries, FDI diversion still depends on the existence of a direct tax treaty between the home and host country. For BITs, the effect of a direct treaty becomes insignificant, but the diversion still depends on Dutch treaties. Thus, for FDI in non-EU countries, the

[72] All estimated effects reported in the text are evaluated at mean values of the regression variables, taking into account the Tobit estimation method and the transformation of the dependent variable. The effects refer to the expected share of diverted FDI unconditional on this expected share being greater than zero. The difference with conditional effects is not substantial.

**Table 3.7** Overall effect of tax treaties on FDI diversion

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Home gravity variable | 0.65*** | 0.66*** | 0.86*** | 0.86*** |
| | (0.07) | (0.07) | (0.10) | (0.10) |
| Host gravity variable | 0.50*** | 0.51*** | 0.39*** | 0.43*** |
| | (0.10) | (0.10) | (0.13) | (0.13) |
| Dutch tax treaties dummy | 0.07*** | 0.07*** | 0.05 | -0.02 |
| | (0.03) | (0.03) | (0.03) | (0.05) |
| Direct tax treaty dummy | -0.04** | -0.05** | -0.05** | -0.02 |
| | (0.02) | (0.02) | (0.03) | (0.04) |
| Non-exemption dummy | 0.01 | 0.01 | 0.02 | 0.02 |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Developing host x Dutch tax treaties | - | - | - | 0.12** |
| | | | | (0.06) |
| Developing host x direct tax treaty | - | - | - | -0.13*** |
| | | | | (0.05) |
| Dutch BITs dummy | 0.07*** | 0.06*** | 0.09*** | 0.08*** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Direct BIT dummy | -0.05** | -0.05** | -0.01 | -0.01 |
| | (0.02) | (0.02) | (0.03) | (0.03) |
| European HQ dummy | - | -0.05*** | - | - |
| | | (0.02) | | |
| Developing host dummy | - | - | - | 0.04 |
| | | | | (0.05) |
| Home corruption | -0.004 | -0.002 | -0.001 | -0.001 |
| | (0.004) | (0.004) | (0.006) | (0.005) |
| Host corruption | -0.003 | -0.004 | -0.009* | -0.014** |
| | (0.003) | (0.003) | (0.005) | (0.006) |
| Host tax treaties | -0.01 | 0.01 | 0.10 | 0.13* |
| | (0.04) | (0.05) | (0.07) | (0.07) |
| Host BITs | 0.01 | 0.03 | 0.06 | -0.07 |
| | (0.04) | (0.03) | (0.05) | (0.05) |
| Constant | -0.02 | -0.02 | -0.05 | -0.04 |
| | (0.03) | (0.03) | (0.04) | (0.05) |
| n | 1,757 | 1,757 | 987 | 987 |
| Adjusted $R^2$ | 0.11 | 0.11 | 0.12 | 0.13 |

Notes: Dependent variable is the share of bilateral FDI stock diverted via the Netherlands. All specifications use Tobit estimation. Robust standard errors are in parentheses. * denotes $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

results seem only partially consistent with treaty shopping. The next section will discuss this finding in more detail.

The fourth regression uses the same observations and analyses whether the effects of tax treaties differ between developing host countries and other non-EU host countries. The general effects of tax treaties on FDI diversion are now insignificant. Thus, the mere existence of tax treaties does not affect the routes of investment in non-EU high income and BRICSM countries. In contrast, the interaction variables show significant effects of tax treaties on FDI in developing countries. These effects have the expected signs, consistent with tax treaty shopping, and are relatively large. The effect of a Dutch tax treaty route is therefore not limited to EU host countries.

So far, the regressions show that FDI diversion depends on three types of structural determinants. First, gravity effects confirm that FDI diversion partly follows the same pattern as FDI in general. This suggests that a Dutch investment route offers some generic benefits, regardless of tax or investment treaties. Second, tax treaties have an additional effect on FDI diversion, except for FDI in non-EU high income and BRICSM countries. For other host countries, a Dutch treaty route increases diversion, while a direct treaty with the home country reduces it. This provides some evidence of tax treaty shopping. Third, investment treaties have a similar effect. This provides some evidence of investment treaty shopping as well.

Other potential determinants included in the regressions do not help to explain the pattern of FDI diversion. The limited role of European headquarters is consistent with the finding of Weichenrieder and Mintz (2008) that Dutch SPEs also hold large American and Asian investments. The insignificance of the home country tax system is unexpected and not in line with other studies. Weichenrieder and Mintz (2008) find that companies from countries that do not exempt foreign profits are more likely to invest in Germany via a third country, for example. The most likely explanation is that the analysis does not properly reflect tax strategies of Dutch SPEs with a direct parent in a tax haven or in a country that exempts foreign dividend income and an ultimate parent in a country that does not.

Four alternative specifications, presented in Annex 3.3, confirm that the effects of tax treaties on FDI diversion are sufficiently robust. First, apparent gravity effects may result from other factors and in that case the gravity variables could distort the analysis. In a specification without gravity effects, though, tax determinants are similar. Second, a specification with home country fixed effects captures relevant characteristics of home countries that may accidentally have been omitted from the regressions. The tax treaty affects are not affected. The third specification includes host country fixed effects instead, capturing differences in domestic anti-avoidance rules. This reduces the significance, but not the size, of the estimated effect of a Dutch tax treaty route. The fourth specification uses a linear dependent variable, without the transformation to model decreasing marginal effects. The corresponding model fit is much lower, but otherwise the results are similar.

### 3.4.4 Results for strategy-specific tax variables

The next series of regressions uses strategy-specific tax variables to test whether the effect of tax treaties is related to reduced withholding taxes. Table 3.8 shows the regression results.

In the first specification, gravity forces are similar to above and the coefficients for corruption and numbers of treaties are again insignificant. The dividend conduit benefit has a significantly positive effect. On average, a 10 percentage points reduction in total taxes on distributed profits is associated with an additional 3% of bilateral FDI being diverted via the Netherlands, again over and above the diversion explained by gravity forces. Considering that a 10 percentage point reduction is twice the standard deviation and the mean diverted FDI share is 11%, the effect is not large but it is material. Thus, reduced dividend withholding taxes are a structural determinant of FDI diversion, which provides strong evidence for tax treaty shopping.

The effect of the base company benefit is insignificant, whereas a positive effect was expected. This suggests that deferral of home country taxation is not a main determinant of FDI diversion, at least not in addition to structures that also yield a dividend conduit benefit. It is possible that such structures are also used to defer home country taxation, though, because reduced withholding taxes between the Netherlands and the home country do not imply that multinationals always distribute subsidiary profits up to the ultimate parent.

The second regression includes the benefit of a mixing company instead of a base company. The corresponding effect is positive but also insignificant. Thus, although anecdotal evidence indicates that some SPE structures were established specifically to achieve mixing of foreign tax credits, this motive is not a major determinant of FDI diversion. Further specifications are shown with the base company benefit only, but estimations with the mixing company benefit instead yield the same results.

The third regression adds tax treaty dummies, which hardly affects the result for the dividend conduit benefit. This confirms that the reduction of dividend withholding taxes is a key determinant of FDI diversion, even after controlling for legal certainty and other general provisions provided by tax treaties. However, the Dutch tax treaties dummy is significant too. Thus, apart from reduced dividend withholding taxes, tax treaties provide further benefits that induce FDI diversion. These benefits may result from legal certainty, but also from tax sparing clauses or reduced interest withholding taxes, for example. The fourth regression adds the European headquarters dummy. Similar to the previous regression series, it does not have the expected sign, which indicates that FDI diversion via the Netherlands is not driven by European headquarters of non-European firms.

The fifth regression limits observations again to non-EU host countries. For these host countries, the dividend conduit benefit has a larger effect on FDI diversion. On average, a 10 percentage points reduction in taxes on distributed profits is associated with an additional 5% of bilateral FDI being diverted via the Netherlands. This contrasts

**Table 3.8** Effect of strategy-specific tax benefits on FDI diversion

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Home gravity variable | 0.65*** | 0.66*** | 0.64*** | 0.66*** | 0.84*** | 0.85*** |
| | (0.07) | (0.07) | (0.07) | (0.07) | (0.10) | (0.10) |
| Host gravity variable | 0.49*** | 0.50*** | 0.46*** | 0.50*** | 0.35** | 0.39*** |
| | (0.10) | (0.10) | (0.10) | (0.10) | (0.14) | (0.14) |
| Dividend conduit benefit | 0.38** | 0.32** | 0.33** | 0.37** | 0.65*** | 0.37 |
| | (0.16) | (0.16) | (0.17) | (0.16) | (0.22) | (0.31) |
| Base company benefit | -0.14 | - | -0.15 | -0.06 | -0.14 | -0.01 |
| | (0.13) | | (0.13) | (0.12) | (0.20) | (0.22) |
| Mixing company benefit | - | 0.27 | - | - | - | - |
| | | (0.23) | | | | |
| Dutch tax treaties dummy | - | - | 0.06** | - | - | - |
| | | | (0.02) | | | |
| Direct tax treaty dummy | - | - | -0.04* | - | - | - |
| | | | (0.02) | | | |
| Developing host x dividend benefit | - | - | - | - | - | 0.60 |
| | | | | | | (0.45) |
| Developing host x base benefit | - | - | - | - | - | -0.25 |
| | | | | | | (0.42) |
| Dutch BITs dummy | 0.06*** | 0.06*** | 0.06*** | 0.06*** | 0.08*** | 0.08*** |
| | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) |
| Direct BIT dummy | -0.06*** | -0.06*** | -0.05** | -0.06*** | -0.03 | -0.03 |
| | (0.02) | (0.02) | (0.02) | (0.02) | (0.03) | (0.03) |
| European HQ dummy | - | - | - | -0.05** | - | - |
| | | | | (0.02) | | |
| Developing host dummy | - | - | - | - | - | 0.05* |
| | | | | | | (0.03) |
| Home corruption | -0.002 | -0.002 | -0.001 | 0.000 | 0.002 | 0.004 |
| | (0.004) | (0.004) | (0.004) | (0.004) | (0.006) | (0.006) |
| Host corruption | -0.002 | -0.002 | -0.002 | -0.003 | -0.008 | -0.012** |
| | (0.003) | (0.003) | (0.003) | (0.003) | (0.005) | (0.006) |
| Host tax treaties | 0.00 | 0.00 | 0.00 | 0.01 | 0.09 | 0.11* |
| | (0.04) | (0.04) | (0.04) | (0.04) | (0.05) | (0.06) |
| Host BITs | 0.02 | 0.02 | 0.03 | 0.04 | 0.03 | -0.04 |
| | (0.04) | (0.04) | (0.04) | (0.04) | (0.05) | (0.05) |
| Constant | 0.00 | -0.01 | 0.00 | 0.00 | -0.02 | -0.04 |
| | (0.03) | (0.03) | (0.04) | (0.03) | (0.04) | (0.04) |
| n | 1,727 | 1,715 | 1,727 | 1,727 | 957 | 957 |
| Adjusted $R^2$ | 0.11 | 0.11 | 0.11 | 0.11 | 0.13 | 0.13 |

Notes: Dependent variable is the share of bilateral FDI stock diverted via the Netherlands. All specifications use Tobit estimation. All specifications use Tobit estimation. Robust standard errors are in parentheses. * denotes $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

with the results for general tax variables, where the overall effect of Dutch tax treaties became insignificant after dropping EU host countries. However, these contrasting findings can be explained by the large FDI diversion within the EU. In the regressions with general tax variables, it increases the effect of a Dutch tax treaty route, because such a route exists for all intra-EU observations. By contrast, in the regressions with strategy-specific tax variables, it reduces the effect of dividend conduit benefits, because there are no such benefits within the EU and yet FDI diversion is large. The sixth regression tests again whether the effect of tax benefits on FDI diversion differs between developing host countries and other non-EU host countries. Using strategy-specific measures for tax benefits, no significant difference is found.

The regressions with strategy-specific tax variables confirm the three types of structural determinants identified above: gravity effects, tax treaties, and investment treaties. In particular, they show that bilateral withholding tax reductions are a key determinant of FDI diversion via Dutch SPEs. This result is in line with other studies (Collins & Shackelford, 1998; Weichenrieder & Mintz, 2008).

The last two regressions show that dividend conduit benefits significantly increase FDI diversion into all non-EU host countries. By contrast, the regressions with dummy variables in the previous section show that tax treaties significantly influence FDI diversion into developing countries, but not into BRICSM countries and high income countries outside the EU. This paradox might be explained by the fact that Dutch tax treaties with developing countries often generate a dividend conduit benefit, because these treaties specify relatively low dividend withholding taxes. Dutch tax treaties with non-EU high income and BRICSM countries generate such a benefit less often, because half of these countries have no dividend withholding taxes and Dutch treaty rates are closer to treaty rates agreed with other partners. Thus, when differences in standard withholding tax rates and treaty characteristics are taken into account, the effect of tax treaties becomes similar and significant for all non-EU host countries.

Contrary to expectations, the analysis does not provide evidence that specific strategies to avoid home country taxation have an additional effect on FDI diversion. Other studies, such as Desai et al. (2003), do find that base company benefits increase the use of SPEs. However, as mentioned in the previous section, this may be explained by Dutch SPE whose direct and ultimate parents are located in different countries.

Four alternative specifications, presented in Annex 3.3, confirm that the overall effect of dividend conduit benefits on FDI diversion is sufficiently robust. The specifications are the same as for the regressions with general tax variables. Including home country fixed effects or using a linear dependent variable reduces the size and significance of the dividend conduit benefit effect, but it remains significant at the 10% level. In the other two specifications, findings for the dividend conduit are similar to above. Surprisingly, the specification without gravity variables shows a significant effect of the base company benefit, but the negative sign suggests that this variable does not capture deferral strategies properly.

## 3.5 Conclusions and discussion

This chapter analysed structural determinants of FDI diversion via the Netherlands. It shows that FDI diversion is higher if the home and host country both have a tax treaty with the Netherlands, and lower if there exists a direct treaty between the home and host country. Furthermore, the analysis shows that diversion of investments is partly driven by specific corporate structures that reduce the total tax on distributed foreign profits by taking advantage of reduced withholding taxes under Dutch tax treaties. It can therefore be concluded that FDI diversion partly results from tax treaty shopping. On average, the possibility to avoid dividend withholding tax causes a few percent of bilateral FDI stock to be routed through the Netherlands rather than being held directly from the origin country. This effect is not large, yet it is material and may also occur for some non-Dutch treaty routes. Although the analysis focuses on tax treaties, it provides some evidence of investment treaty shopping via Dutch SPEs as well.

The results imply that apparent positive effects of tax and investment treaties on inward FDI can to some extent be attributed to treaty shopping. This has major implications for further research on foreign investment using bilateral FDI data, because FDI diversion changes the immediate destination of outward FDI and the immediate origin of inward FDI.

It is difficult to assess the social costs and benefits of tax treaty shopping, because the results do not show how FDI diversion influences the overall amount of investment between ultimate origin and destination countries. Social benefits include higher after-tax returns for investors and potentially higher investment, which in turn may generate additional economic activity and tax revenues. Social costs include lower tax revenues at a given level of investment and implementation costs of tax planning. There are also indirect effects. A lower dividend withholding tax creates an incentive for a subsidiary to pay out higher dividends and reinvest less or repay less debt, for example. This reduces future investments and limits the tax base in the host country over time.

The results have policy implications for non-EU countries as well as for the Netherlands (Weyzig & Van Dijk, 2009). To keep better control over policy outcomes, non-EU countries may prefer unilateral measures to attract FDI instead of reducing withholding taxes on a bilateral basis. If countries suspect significant diversion of inward FDI via an existing treaty, they could renegotiate the treaty and include anti-avoidance provisions, but this process would be costly. It would be more efficient if the Netherlands were to take unilateral measures against treaty shopping. In principle, such measures could be effective even if other countries do not take similar measures, because the Netherlands is by far the largest conduit country for FDI.

Some limitations to this study should be noted, although it is unlikely that these affect the main results. First, there are various limitations to the micro data. For example, some SPEs report larger assets than liabilities and the data do not cover smaller SPEs that may still be significant for particular destination countries. Second,

longer ownership chains distort the estimation of home country tax effects. Third, the analysis uses normal withholding tax rates and disregards preferential regimes, but for some countries special tax concessions may reduce the additional benefits of a tax treaty. Fourth, the regressions disregard qualitative differences between tax treaties, for example with regard to limitation on benefits and tax sparing clauses. Fifth, the analysis could not take into account what tax treaties and regulations were in place at the time an investment was made or how FDI diversion evolves over time. These last two limitations are probably the most important ones.

## **Annex 3.1** Calculation of tax benefits

**Dividend conduit benefit** If the home country exempts foreign dividend income:

$$\begin{aligned} Benefit = &\left(1-\left(1-STR_{host}\right)\left(1-WHT_{host-home}\right)\right) \\ &-\left(1-\left(1-STR_{host}\right)\left(1-WHT_{host-NL-home}\right)\right) \end{aligned}$$

and if the home country does not exempt foreign dividend income, but provides a tax credit:

$$\begin{aligned} Benefit = &\max\left[STR_{home},\ \left(1-\left(1-STR_{host}\right)\left(1-WHT_{host-home}\right)\right)\right] \\ &-\max\left[STR_{home},\ \left(1-\left(1-STR_{host}\right)\left(1-WHT_{host-NL-home}\right)\right)\right] \end{aligned}$$

with *STR* denoting the statutory tax rate on corporate income and

$$WHT_{host-NL-home} = 1-\left(1-WHT_{host-NL}\right)\left(1-WHT_{NL-home}\right).$$

**Base company benefit** If the home country exempts foreign dividend income:

$$Benefit = 0;$$

if the home country does not exempt foreign dividend income, but provides a tax credit:

$$\begin{aligned} Benefit = &\max\left[STR_{home},\ \left(1-\left(1-STR_{host}\right)\left(1-WHT_{host-home}\right)\right)\right] \\ &-\left(1-\left(1-STR_{host}\right)\left(1-WHT_{host-NL}\right)\right) \end{aligned}$$

**Mixing company benefit** If the home country exempts foreign dividend income:

$$Benefit = 0;$$

if the home country does not exempt foreign dividend income, but provides a tax credit:

$$Benefit = \tfrac{1}{2}\left|STR_{home} - STR_{host}\right|.$$

## **Annex 3.2** Correlation matrix

| | Diverted FDI | Home gravity | Host gravity | Dutch tax treaties | Direct tax treaties | Non-exempt. | Dividend conduit | Base company |
|---|---|---|---|---|---|---|---|---|
| Diverted FDI | 1.000 | | | | | | | |
| Home gravity | 0.277 | 1.000 | | | | | | |
| Host gravity | 0.137 | -0.065 | 1.000 | | | | | |
| Dutch tax treaties | 0.050 | -0.035 | 0.300 | 1.000 | | | | |
| Direct tax treaties | -0.088 | -0.121 | 0.114 | 0.474 | 1.000 | | | |
| Non-exemption | -0.062 | -0.266 | 0.026 | -0.034 | 0.023 | 1.000 | | |
| Dividend conduit | 0.077 | 0.041 | 0.072 | 0.104 | -0.080 | 0.017 | 1.000 | |
| Base company | -0.065 | -0.219 | -0.010 | 0.027 | -0.033 | 0.477 | 0.304 | 1.000 |
| Dutch BITs | 0.018 | -0.097 | 0.073 | 0.193 | 0.313 | -0.056 | -0.087 | -0.101 |
| Direct BIT | -0.094 | -0.106 | -0.002 | 0.140 | 0.393 | -0.011 | -0.132 | -0.055 |
| Developing host | -0.023 | 0.054 | -0.418 | -0.408 | -0.195 | 0.028 | -0.117 | -0.130 |
| Home corruption | -0.085 | -0.408 | 0.146 | 0.040 | 0.119 | 0.430 | -0.109 | 0.266 |
| Host corruption | -0.056 | 0.011 | -0.290 | -0.205 | -0.054 | 0.036 | -0.030 | -0.019 |
| Host tax treaties | 0.054 | -0.091 | 0.522 | 0.565 | 0.364 | 0.013 | 0.090 | 0.062 |
| Host BITs | 0.060 | -0.079 | 0.508 | 0.347 | 0.238 | 0.034 | -0.012 | 0.023 |

Note: n = 1,715.

| Dutch BITs | Direct BIT | Develop. host | Home corrupt. | Host corrupt. | Host tax treaties | Host BITs | |
|---|---|---|---|---|---|---|---|
| | | | | | | | Diverted FDI |
| | | | | | | | Home gravity |
| | | | | | | | Host gravity |
| | | | | | | | Dutch tax treaties |
| | | | | | | | Direct tax treaties |
| | | | | | | | Non-exemption |
| | | | | | | | Dividend conduit |
| | | | | | | | Base company |
| 1.000 | | | | | | | Dutch BITs |
| 0.579 | 1.000 | | | | | | Direct BIT |
| 0.043 | 0.088 | 1.000 | | | | | Developing host |
| 0.281 | 0.245 | -0.083 | 1.000 | | | | Home corruption |
| 0.163 | 0.241 | 0.618 | -0.055 | 1.000 | | | Host corruption |
| 0.148 | 0.100 | -0.551 | 0.192 | -0.407 | 1.000 | | Host tax treaties |
| 0.260 | 0.233 | -0.255 | 0.191 | -0.143 | 0.759 | 1.000 | Host BITs |

## Annex 3.3 Results of robustness checks

Table 3.9 presents the results of robustness checks for the regressions with tax treaty dummies. The results are briefly discussed in the main text. The first regression omits gravity variables. The second regression includes home country fixed effects and the

**Table 3.9** Robustness checks for the overall effect of tax treaties

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Home gravity variable | - | - | 0.62*** | 0.88*** |
| | | | (0.06) | (0.13) |
| Host gravity variable | - | 0.51*** | - | 0.57** |
| | | (0.08) | | (0.23) |
| Dutch tax treaties dummy | 0.08*** | 0.06*** | 0.06* | 0.06** |
| | (0.03) | (0.02) | (0.04) | (0.02) |
| Direct tax treaty dummy | -0.06*** | -0.06*** | -0.06*** | -0.05** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Non-exemption dummy | 0.00 | - | 0.01 | -0.01 |
| | (0.02) | | (0.02) | (0.01) |
| Dutch BITs dummy | 0.07*** | 0.02 | 0.07*** | 0.05*** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Direct BIT dummy | -0.05** | -0.04*** | -0.03* | -0.04** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Home corruption | -0.017*** | - | -0.001 | 0.003 |
| | (0.004) | | (0.004) | (0.004) |
| Host corruption | -0.007* | 0.002 | - | 0.000 |
| | (0.003) | (0.003) | | (0.003) |
| Host tax treaties | 0.00 | -0.01 | - | 0.02 |
| | (0.05) | (0.04) | | (0.04) |
| Host BITs | 0.07* | 0.08* | - | 0.00 |
| | (0.04) | (0.03) | | (0.04) |
| Home fixed effects | - | Yes | - | - |
| Host fixed effects | - | - | Yes | - |
| Constant | 0.20 | 0.04 | -0.09 | 0.03 |
| | (0.03) | (0.08) | (0.20) | (0.03) |
| n | 1,802 | 1,757 | 1,757 | 1,781 |
| Adjusted $R^2$ | 0.04 | - | - | 0.05 |
| Likelihood ratio | - | 800.3 | 601.2 | - |

Notes: All specifications use Tobit estimation. Standard errors are in parentheses; for specifications (1) and (4) these are robust standard errors. Specifications (2) and (3) use normal Tobit estimation with country dummies; the corresponding likelihood ratios have 94 and 117 degrees of freedom, respectively. * denotes $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

third regression includes host country fixed effects. The fourth regression uses a linear dependent variable. Table 3.10 presents the same robustness checks for the regressions with strategy-specific tax variables. These are also discussed in the main text. The use of data for 2006 instead of 2007 (not shown) does not affect the results for general and strategy-specific tax variables.

**Table 3.10** Robustness checks for the effect of strategy-specific tax benefits

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Home gravity variable | - | - | 0.64*** | 0.88*** |
| | | | (0.06) | (0.13) |
| Host gravity variable | - | 0.51*** | - | 0.59*** |
| | | (0.08) | | (0.23) |
| Dividend conduit benefit | 0.49*** | 0.27* | 0.37** | 0.26* |
| | (0.17) | (0.15) | (0.17) | (0.15) |
| Base company benefit | -0.37*** | -0.10 | -0.07 | -0.21* |
| | (0.13) | (0.14) | (0.14) | (0.11) |
| Dutch BITs dummy | 0.06*** | -0.02 | 0.06*** | 0.05** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Direct BIT dummy | -0.06*** | -0.05*** | -0.05*** | -0.04** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| Home corruption | -0.014*** | - | 0.001 | 0.004 |
| | (0.004) | | (0.004) | (0.003 |
| Host corruption | -0.005 | 0.002 | - | 0.001 |
| | (0.003) | (0.003) | | (0.003) |
| Host tax treaties | 0.01 | -0.01 | - | -0.02 |
| | (0.04) | (0.04) | | (0.04) |
| Host BITs treaties | 0.08** | 0.08** | - | -0.01 |
| | (0.04) | (0.03) | | (0.03) |
| Home fixed effects | - | Yes | - | - |
| Host fixed effects | - | - | Yes | - |
| Constant | 0.23*** | 0.05 | -0.02 | 0.04* |
| | (0.03) | (0.08) | (0.04) | (0.02) |
| n | 1,772 | 1,814 | 1,766 | 1,751 |
| Adjusted $R^2$ | 0.04 | - | - | 0.05 |
| Likelihood ratio | - | 811.8 | 593.7 | - |

Notes: All specifications use Tobit estimation. Standard errors are in parentheses; for specifications (1) and (4) these are robust standard errors. Specifications (2) and (3) use normal Tobit estimation with country dummies; the corresponding likelihood ratios have 106 and 118 degrees of freedom, respectively. * denotes $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

# 4 Capital structure and the use of Dutch financing entities

This chapter is under review for publication in an academic journal.

**Abstract** *Large firms may issue debt securities to obtain external financing or set up lowly taxed affiliates for internal debt shifting purposes. In addition, they may channel interest payments through Dutch Special Purpose Entities (SPEs) to avoid withholding taxes, a widely used arbitrage strategy. Analysing the capital structure of large EU-based multinationals, this chapter provides evidence that the use of Dutch issuing SPEs is associated with higher debt financing relative to equity. Furthermore, it shows that EU subsidiaries of larger firms are more leveraged and that the use of Dutch onlending SPEs is also associated with higher subsidiary leverage. Thus, the chapter provides evidence that Dutch SPEs facilitate higher external debt financing as well as internal debt shifting. The findings indicate that withholding taxes on interest payments to entities outside the EU, determined by individual EU member states, are not very effective. The national tax systems of EU countries like the Netherlands, which does not impose interest withholding tax, allow large firms to avoid those taxes.*

## 4.1 Introduction

Taxation influences the decisions of multinational enterprises on their total use of external debt as well as on the internal financing of individual affiliates (Devereux, 2006; Graham, 2003). At the level of the firm as a whole, leverage can provide a tax benefit because interest payments can usually be deducted from taxable income, but the return on equity cannot. At the level of individual affiliates, multinationals can adjust their internal capital structure to deduct more interest in high-tax countries and allocate income to lowly taxed affiliates (Büttner & Wamser, 2007; Huizinga et al., 2008; Ruf, 2008).

This chapter analyses whether external debt financing at the firm level is facilitated by the issuance of debt securities in general and, more specifically, by issuing debt securities via Dutch Special Purpose Entities (SPEs). At the subsidiary level, it tests whether larger firms use relatively more debt to finance their EU subsidiaries, as debt shifting strategies involving lowly taxed affiliates may be more attractive for larger firms. In addition, it investigates whether Dutch onlending SPEs facilitate such debt shifting strategies, because firms can use Dutch SPEs to reduce withholding taxes on intra-group interest payments to lowly taxed affiliates. Analysing the overall capital structure of 82 large EU-based multinationals and the financing of 3,053 of their EU subsidiaries, the chapter provides evidence that all these factors are indeed associated with higher indebtedness.

From a public policy perspective, debt-financing strategies in large multinationals are relevant because of their potentially large impact on economic activity and on tax revenues. The findings indicate that the current EU policy on corporate tax, with no withholding taxes on payments to EU affiliates but withholding taxes on payments to non-EU entities determined separately by each member state, is problematic because of arbitrage.

From an academic perspective, this chapter contributes to existing literature by providing evidence on the role of Dutch financing SPEs. Although these SPEs pass on large amounts of internal and external debt financing, research on their role in the capital structure of large firms has so far been limited. It also contributes to research on debt shifting by analysing the tax sensitivity of subsidiary leverage among large multinationals, with a dataset and methodology specifically adapted to large firms.

The outline of the chapter is as follows. Section 4.2 provides background information on Dutch SPEs and formulates hypotheses on debt financing at the firm and subsidiary levels. Section 4.3 explains the empirical approach. Section 4.4 describes the data set construction and the variables in the data set, with some examples of concrete SPEs. Section 4.5 contains the empirical results and section 4.6 presents the conclusion and a brief discussion of the findings.

## 4.2 Background and hypotheses

### 4.2.1 Dutch Special Purpose Entities

Many large multinationals channel international capital and income flows through Dutch SPEs. For statistical purposes, Dutch regulations formally define SPEs as *"resident enterprises or institutions […] in which non-residents hold a direct or indirect participating interest […] and whose objective is or whose business consists to a major extent of receiving funds from non-residents and channelling them to non-residents"*.[73] A common feature of SPEs is that they do not conduct significant real business activities and mainly have financial assets (OECD, 2008b). There are approximately 12,000 SPEs in the Netherlands and they usually form part of international tax planning structures (DNB, 2007a). At the end of 2005, a reference date for the analysis, Dutch SPEs held roughly €290 billion of intra-group loan assets and €860 billion of equity participations abroad.[74] Together, this was 13% of the world's total inward FDI stock, which makes the Netherlands the world's largest conduit country for FDI.[75] During 2005, the SPEs reported approximately €63 billion of income from FDI, mainly consisting of dividends and interest.[76] They channel a large part of this income onwards to foreign affiliates or external creditors, and reinvest most of the remaining income within the group.

The Dutch tax system provides an attractive environment for SPEs. Key factors are the absence of withholding tax on outgoing interest and royalty payments, exemption of foreign dividend income and capital gains from Dutch tax, and a large and favourable tax treaty network.[77] SPE operations are facilitated by highly developed fiscal and legal consultancy services and administrative services that provide legal substance to SPEs, so SPEs do not need an office or staff of their own (Weyzig & Van Dijk, 2009). Case law on many tax-planning issues is well established. Furthermore, multinationals can apply for tax rulings that provide certainty in advance about the fiscal treatment of specific

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[73] Section 1 of the Balance of Payments Reporting Instructions 2003, having regard to section 7 of the Dutch External Financial Relations Act 1994.

[74] The figure refers to intra-group loans of Dutch SPEs to foreign affiliates. Source: Dutch Central Bank, http://statistics.dnb.nl/index.cgi?lang=uk&todo=Balans, tables 12.10 and 12.14 (accessed 19 Sep 2011). SPEs mainly finance these loans with external and internal debt.

[75] At the end of 2005, world inward FDI stock was roughly €8600 billion (UNCTAD, 2006). The second-largest conduit country for FDI is Luxembourg. At the end of 2005, FDI stock held through Luxembourg was €712 billion, according to the Luxembourg Central Bank, http://www.bcl.lu/fr/statistiques/series_statistiques, table 9.2 (accessed 17 Jan 2012).

[76] Source: Dutch Central Bank, http://statistics.dnb.nl/index.cgi?lang=uk&todo=Balans, tables 12.4 and 12.13 (accessed 17 Jun 2011).

[77] In addition, from January 1997 to July 2001, firms could apply for the Group Financing Activities regime. In theory, this special Dutch tax facility could reduce the effective tax rate on net intra-group interest and royalty income to 7%. See also footnote 6 in Ruf and Weichenrieder (2009). Official documents and company accounts show that no more than 90 firms were admitted, including at least 27 Dutch multinationals. Smiths Group plc is the only firm in the dataset for which there is evidence that it used the facility. Therefore the special regime is of little significance to the analysis in this chapter.

corporate structures and transactions. A new ruling system was introduced in 2001, with a transition period until end of 2005. In practice, under both the old and new system, Dutch tax rulings allow low, fixed margins on intra-group financing transactions and require limited substance.[78] The rulings also provide protection against domestic anti-avoidance measures in the source countries where the interest arises. This chapter focuses on SPE structures for the avoidance of interest withholding tax in the period 1997-2005 and considers both firm-level and intra-group debt financing.

At the firm level, many European multinationals issue debt securities via Dutch SPEs because of lower borrowing costs, which largely result from the absence of withholding tax. Some types of end investors, such as individuals or insurance companies, can usually recover withholding tax on interest income by offsetting it to their own tax obligations. However, end investors that are tax exempt, such as pension funds, cannot so the withholding tax is a disadvantage.[79] Many other EU-countries exempt interest on corporate bonds from withholding tax as well, but only if certain conditions are met. For example, the UK only exempts listed Eurobonds, Germany does not exempt convertible bonds, and France does not exempt payments to secrecy jurisdictions. If withholding taxes apply, these typically range from 15% to 25% or higher. Other factors, such as the Dutch tax ruling practice and favourable tax treaty network, facilitate the distribution of funds within a firm. Before the implementation of the EU Interest and Royalties Directive in 2005, Dutch tax treaties already provided for zero withholding taxes on intra-group interest received from most EU countries.

The debts that non-financial firms issue via Dutch SPEs are guaranteed by the parent company and fully consolidated in financial statements. Many of these debt securities are publicly listed, but not in the Netherlands itself. For European firms, they are usually quoted in Luxembourg or Switzerland, and for Asian firms in Singapore. Outstanding debt securities of all Dutch SPEs combined had a nominal value of roughly €250 billion at the end of 2005.[80] Company accounts and prospectuses show that SPEs lend the proceeds onwards to their foreign parents, to other affiliates in various countries, or a combination of both. The loans to parent companies enter Dutch inward FDI statistics with a negative sign and are reflected in negative net debt investments from Germany

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[78] For example, according to its annual accounts, the bond-issuing SPE of Energias de Portugal SA had no staff or office in the Netherlands; its board of directors consisted of two employees of a Dutch service provider and a Spanish legal person. In 2007, the SPE obtained a tax ruling that specifies its minimum taxable income as an arms-length return on equity plus a spread of 0.03% on onlent funds, minus operational costs.

[79] This type of end investors also includes wealthy individuals whose income is not taxed, for example because they are domiciled in a tax haven.

[80] Source: see note 74. This figure excludes securitisations of foreign financial claims issued by Dutch Special Purpose Vehicles (SPVs). Total non-current debt issued by Dutch SPEs was €312 billion; on the basis of other data, I estimate that SPVs account for 20% to 25% of this total. Of the remaining €250 billion, I estimate that SPEs used some €225 billion to finance loans to foreign affiliates and €25 billion for other purposes, such as loans to domestic affiliates.

and Spain, of -€73 billion and -€32 billion respectively at the end of 2009 (IMF, 2012a).

At the subsidiary level, Dutch SPEs may channel intra-group interest payments to affiliates in countries with low or zero corporate taxes or with preferential tax regimes. Most EU countries do not have full tax treaties with tax havens and levy maximum withholding tax rates on interest payments to such jurisdictions. The same applied to companies that operated under Luxembourg's former 1929 Holding Companies regime, which were excluded from tax treaties and from the EU Interest and Royalties Directive. Similar to external debt financing, channelling intra-group loans through Dutch SPEs can be attractive due to the combination of lower withholding taxes, the Dutch tax ruling practice, and other factors. Some large multinationals may also use a Dutch SPEs as a central financing hub for affiliates in many different countries, including countries for which such a structure is not required to reduce withholding taxes.

FDI statistics illustrate the relevance of Dutch onlending structures involving lowly taxed affiliates. At the end of 2009, Bermuda, the Netherlands Antilles, Cayman Islands and British Virgin Islands, four major tax havens, had net intra-group debt investments of €95 billion in the Netherlands. In addition, the Netherlands reported €218 billion of net intra-group debt investments from Belgium, Luxembourg, Ireland and Switzerland, four key countries with preferential tax regimes (IMF, 2012a). For both country groups, approximately 80% of FDI in the Netherlands was channelled onwards through SPEs.[81]

### 4.2.2 Debt financing at the firm level

The use of debt financing relative to capital contributions and retained earnings is a central aspect of a firm's consolidated capital structure. The amount and composition of debt financing is influenced by the attractiveness of different types of debt. Two main types are bank loans and debt securities. A firm's choice between these two types depends, among others, on market access, issuance costs and agency costs (Esho et al., 2001; James & Smith, 2000; Krishnaswami et al., 1999). Firms with investment-grade ratings may be able to issue debt securities at lower interest rates than what they would pay on bank loans, because of relatively low monitoring costs for creditors (Bharath, 2002). This is especially relevant for larger firms, which have better access to credit markets and can exploit economies of scale in the issuance of publicly traded debt (James & Smith, 2000; Krishnaswami et al., 1999). When firms issue debt securities, the use of a Dutch issuing SPE may further reduce borrowing costs, as explained in the previous section. Lower borrowing costs per unit of debt, in turn, provide an incentive for higher debt financing relative to equity. This leads to the following two hypotheses at the firm level.

[81] This percentage is calculated combining figures reported by the Netherlands on total (equity plus debt) inward investments including investments in SPEs from the IMF CDIS (IMF, 2012a) and on total inward investments excluding investments in SPEs from OECD Statistics (OECD, 2012b).

***Hypothesis F1*** *The use of debt securities is associated with higher debt financing relative to equity.*

***Hypothesis F2*** *For firms that use debt securities, the use of a Dutch issuing SPE is associated with yet higher debt financing relative to equity.*

The hypotheses state that debt securities and Dutch issuing SPEs are instrumental in achieving a more leveraged capital structure. They do not necessarily imply a causal effect, because the use of debt securities is part of a firm's financing policy and may follow from a certain leverage target. Methodological implications will be discussed in the next section.

When testing these hypotheses, other factors that influence debt financing must be accounted for. In general, debt finance is more attractive for larger firms, because of lower informational costs, and for firms that have more tangible assets or are less likely to experience financial distress, because of lower risks for creditors and therefore lower borrowing costs (Graham, 2000; Rajan & Zingales, 1995). Next, it is well established in literature that the tax benefits of debt are higher if a firm is more profitable (Graham, 2000). However, due to transaction costs and information asymmetry between managers and investors, firms may prefer to finance new investments with retained earnings instead of debt (Myers, 1984). Empirical studies generally show that more profitable firms use less debt (Myers, 1993; Rajan & Zingales, 1995; Wald, 1999). The tax benefits of debt are less important for companies that use other strategies to minimize their taxes, such as manipulation of transfer prices (Graham & Tucker, 2006). Finally, the use of debt varies substantially among industries because of differences in market concentration, product uniqueness, business cyclicality and growth opportunities (Graham, 2000).

The analysis addresses most of these factors by controlling for a firm's profitability, size and tangibility and for industry fixed effects. Controlling for the probability of financial distress is more difficult, because this probability also depends on the financing structure and is therefore largely endogenous. Empirical studies often use Z-scores (Altman, 2002) to estimate the probability of financial distress.[82] One individual component of the Z-score, working capital divided by total assets, can still be added as a separate control variable. The use of other tax planning strategies cannot be controlled for directly, but to the extent that such strategies are industry specific, this omission is partly addressed by controlling for industry effects.

[82] The Z-score is a weighted sum of certain financial ratios of a firm.

### 4.2.3 Debt financing at the subsidiary level

At the subsidiary level, the mechanisms through which taxation affects leverage require some elaboration. Various studies show that the leverage of foreign subsidiaries increases with the statutory tax rate (STR) for corporate income (Altshuler & Grubert, 2002; Desai et al., 2004b; Grubert, 2003b; Jog & Tang, 2001; Mintz & Weichenrieder, 2005). Part of this effect is due to deliberate debt shifting among affiliates within a multinational, but taxes influence the leverage of domestically owned companies as well (Egger et al., 2010; Overesch & Voeller, 2010). Several studies have distinguished debt shifting from the domestic tax effect by analysing how leverage depends on tax rate differences within a firm rather than on absolute tax rates. They find that debt shifting is statistically significant but small in magnitude (Büttner & Wamser, 2007; Huizinga et al., 2008; Møen et al., 2011). A study that compares domestically owned and foreign-owned firms finds a larger debt shifting effect (Egger et al., 2010).

In contrast to other studies, this research specifically analyses the internal capital structure of large firms. Debt shifting in large firms may differ from small firms for two reasons.

First, large multinationals often use central treasury entities to raise external debt financing and to manage intra-group loans and deposits (Mintz & Weichenrieder, 2005; Ruf, 2008). Even large multinationals with a decentralised structure, raising external finance at the country level in local currencies for example, have many subsidiaries whose debt is entirely intra-group. Thus, in large firms, comprehensive debt shifting through external debts at the lowest subsidiary level is unlikely. This contrasts with smaller firms, for which the shifting of external and internal debt is of equal importance (Møen et al., 2011).

Second, large multinationals are more likely to use complex tax planning structures, involving special tax planning affiliates that are based in tax havens or that take advantage of preferential tax regimes. Such structures have largely fixed implementation costs (Ruf, 2011). More specifically, they typically involve initial fixed costs for advisory and legal services and annual fixed costs to manage the tax planning entities. This implies that such structures can generate net benefits only for firms whose taxable income is above a certain threshold.[83] The size of a multinational's corporate tax department plays a role as well.

Even among large firms, the attractiveness of debt shifting structures involving special lowly taxed affiliates might continue to increases with firm size due to economies of scale. Although various studies show that leverage increases with the size of the individual subsidiary (Barion et al., 2010; Büttner et al., 2011; Møen et al., 2011;

[83] Assuming a moderate taxable income threshold of €1.5 million, corresponding earnings before interest and taxes of €2.0 million, and a profit margin of 10%, the corresponding sales threshold would be €20 million only. However, a firm's future taxable income is uncertain and additional costs may arise if tax laws are amended or if authorities challenge a tax planning structure. Therefore in reality the threshold is probably higher.

Ruf, 2008, 2011), the effect of firm size on subsidiary leverage has not yet been investigated. Furthermore, Dutch onlending SPEs may facilitate debt shifting by reducing withholding taxes on interest paid to lowly taxed affiliates. This leads to the following two subsidiary-level hypotheses.

***Hypothesis S1*** *Larger firm size is conducive to higher subsidiary leverage.*

This hypothesis states a causal effect of firm size on subsidiary leverage. Firm size can be regarded an exogenous variable.

***Hypothesis S2*** *The use of a Dutch onlending SPE is associated with higher subsidiary leverage.*

This hypothesis does not state a causal effect. A Dutch onlending SPE is expected to facilitate debt shifting, but does not cause it. Instead, subsidiary leverage and the use of an onlending SPE both follow from a firm's financial strategy. Again, methodological implications will be discussed in the next section.

In both hypotheses, higher subsidiary leverage refers to an additional debt financing effect over and above the normal sensitivity of subsidiary leverage to host country STR. It is therefore not necessary to decompose the normal tax sensitivity of leverage into an international debt shifting effect and a domestic tax effect. However, relevant subsidiary characteristics should be controlled for, similar to the analysis at the firm level. The hypotheses assume an increase in average subsidiary leverage rather than an increase in the sensitivity of subsidiary leverage to host country STR. This is because the potential benefits of allocating income to lowly taxed affiliates would be substantial for subsidiaries in most or all EU countries.

Note that the use of special tax planning affiliates contrast with the implicit assumption in most studies on debt shifting that firms respond to tax rate differences among countries where they have active operations. That assumption mainly reflects tax planning in small and medium sized firms. Büttner and Wamser (2007) and Møen et al. (2011) do account for the possibility of lowly taxed financing affiliates, which helps to understand more complex tax planning structures. However, their assumption that the lowest-tax affiliate provides internal loans to other affiliates may still be problematic for large firms, because some large firms establish tax haven affiliates for other purposes.

## 4.3 Analytical approach

The analytical model largely follows the theoretical framework outlined by Barion et al. (2010). A key assumption is that a multinational independently chooses the desired level

of total external leverage[84] and the amount of intra-group debt shifting. The external leverage decision depends on the benefits of debt financing, which follow from the tax systems of all countries where a firm operates, and on the expected costs of financial distress. The debt shifting decision depends, generally speaking, on debt shifting opportunities and factors restraining the use of these opportunities. Apart from the costs to implement tax planning structures, those factors include the costs of managing increasing complexity and loss of flexibility, effective anti-avoidance rules (Ruf & Weichenrieder, 2009), legal risks, and the overall attitude of the board towards tax planning.

The analysis of Dutch issuing SPEs and firm level indebtedness is rather straightforward. It uses the following specification:

$$\lambda_{kt} = \beta_0 + \beta_1 DebtSecurities_{kt} + \beta_2 IssuingSPE_{kt} + \beta_3 \tau_{kt} + \beta_4 Size_{kt} + \beta_5 X_{kt} + \gamma_p + \delta_t + \varepsilon_{kt}.$$

In this equation, $\lambda_{kt}$ is the consolidated debt ratio or leverage of firm $k$ at the end of fiscal year $t$. Thus, the dependent variable reflects the consolidated balance sheet of the ultimate parent company. $DebtSecurities_{kt}$ and $IssuingSPE_{kt}$ are dummy variables that take the value one for all observations with outstanding debt securities and for observations with outstanding debt securities issued via Dutch SPEs, respectively. Hypothesis F1 is equivalent to $\beta_1 > 0$ and hypothesis F2 to $\beta_2 > 0$. $\tau_{kt}$ denotes home country STR, $Size_{kt}$ is firm size, and $X_{kt}$ reflects other firm characteristics. Finally, the specification includes industry peer group and year fixed effects, $\gamma_p$ and $\delta_t$, and an error term $\varepsilon_{kt}$.

The analysis of debt shifting at the subsidiary level is tailored to large multinationals and uses an empirical approach that differs from earlier studies in three ways. First, domestic subsidiaries are included in the analysis, because large firms may shift debt among all affiliates. Second, only lowest-level subsidiaries are included to avoid double counting of assets held through ownership chains. This is important because large multinationals hold many of their subsidiaries indirectly (Desai et al., 2003; Weichenrieder & Mintz, 2008). In addition, to the extent that intermediate entities provide intra-group loans as well as equity to lowest-level subsidiaries, it mitigates a methodological problem caused by debt chains. The problem is that intra-group loan assets reduce the net indebtedness of an affiliate, but this cannot be accounted for because data on intra-group loan assets are not available in Amadeus.[85] Third, all lowest-level subsidiaries of a firm in the same country are combined into one entity. This is done by adding up the assets, liabilities, and sales items of the individual subsidiaries.

[84] In their theoretical framework, Barion et al. (2010) assume that external debt is divided among group entities, but this is not relevant for the debt shifting decision.

[85] Limiting the analysis to lowest-level subsidiaries has the disadvantage of excluding assets other than intra-group financial assets held by intermediate entities. However, as many large firms have intra-group holding and debt chains with more than one intermediate level, the double counting and net leverage problems are more important.

Financial ratios are then calculated for the country-level entity as a whole. This prevents that firms with many subsidiaries per country dominate the analysis. Furthermore, it produces more meaningful results for large firms that have various lowest-level subsidiaries of very different sizes in the same country.

The debt shifting analysis uses the following specification:[86]

$$\lambda_{ikt} = \beta_0 + \beta_1\tau_{ikt} + \beta_2(\tau_{ikt} - \tau_{kt}) + \beta_3 OnlendingSPE_{kt} + \beta_4 Size_{kt} + \beta_5\lambda_{kt} + \beta_6 X_{ikt} + \delta_t + \varepsilon_{ikt}\,.$$

In this equation, $\lambda_{ikt}$ denotes the leverage of country-level entity *i* belonging to firm *k* at the end of fiscal year *t*. Thus, the dependent variable in this equation reflects the combined unconsolidated balance sheets of all lowest-level subsidiaries in a country. $\tau_{ikt}$ indicates host country STR and, in line with some studies on small firms, the difference between host and ultimate home country STR ($\tau_{ikt}$ - $\tau_{kt}$) is also included. $OnlendingSPE_{kt}$ is a firm-level dummy variable indicating the use of a Dutch SPE that lends from and to group companies. Hypothesis S1 is equivalent to $\beta_3 > 0$ and hypothesis S2 to $\beta_4 > 0$. The specification controls for consolidated firm leverage $\lambda_{kt}$ and thus captures potential indirect SPE effects on subsidiary leverage via lower external borrowing costs at the firm level. This ensures that the SPE effect $\beta_3$ reflects additional debt shifting at the level of subsidiaries only. Consolidated firm leverage is an exogenous variable in this equation, because it can be assumed that a multinational independently determines external leverage and intra-group debt shifting. Finally, $X_{ikt}$ denotes country-level entity characteristics, $\delta_t$ stands for year fixed effects and $\varepsilon_{ikt}$ is an error term.

The use of debt securities or Dutch SPEs is part of a firm's financing policy and this creates a potential bias in both equations. Some factors conducive to their use may also tend to increase debt financing in ways that are not facilitated by debt securities or Dutch SPEs. Some important factors, notably firm size, are included in the specifications. However, other factors, such as risk appetite or tax aggressiveness, are not included because they cannot be directly observed. For debt securities, the problem is probably limited, because if a firm uses debt securities, these probably play a major role in the implementation of the firm's financing policy. For SPEs, the regressions test whether effects associated with issuing, onlending, and other types of Dutch SPEs are different. If relevant unobserved factors are correlated with the use of SPEs, they are probably correlated with various SPE types. Thus, if effects are specific to one type of Dutch SPEs, it becomes unlikely that a potential bias undermines the overall results.

[86] The $\beta$- and $\delta$-coefficients in this equation are unrelated to those in the equation for firm level indebtedness.

## 4.4 Data description and examples of SPEs

### 4.4.1 Data set construction and financial ratios

The data set was constructed in three main steps. First, a rough inventory of Dutch SPEs was established by selecting all Dutch companies classified as financial holdings that do not conduct business outside the group. The data were obtained from the Reach database of commercial data provider Bureau van Dijk, which contains data on 2 million Dutch companies.

Second, industry peer groups of publicly listed manufacturing firms, based in EU-25 countries other than the Netherlands, were constructed on the basis of key competitors listed in Hoovers company profiles.[87] The approximate list of Dutch SPEs was used to select peer groups that included firms with and without Dutch SPEs. This step resulted in 13 industry peer groups, with a total of 82 firms for which financial data were available of at least five majority-owned subsidiaries in two or more EU-25 countries other than the Netherlands. Annex 4.1 lists all firms in the data set. Consolidated firm data and unconsolidated subsidiary data were retrieved for the fiscal years 1997, 1999, 2001, 2003 and 2005 from the largest version of the Amadeus database, also of Bureau van Dijk, which covers 19 million European companies.[88] National tax rates are taken from the European Commission (European Commission, 2005) and surveys by KPMG and Deloitte.

At the firm level, in some cases consolidated financial data for particular years are missing in Amadeus. These data were manually added from published annual accounts, if available. Furthermore, some firm-level data from Amadeus were incorrect.[89] In approximately a third of the observations, one or more variables were corrected on the basis of the original annual accounts. The balance sheet items total equity, total liabilities and accounts payable did not require significant corrections. Subsidiary-level data were not checked for errors.

As a third step, the dummy values for debt issuance and SPE types were determined. For each firm and for each year, the debt securities dummy is set to one if at least €50 million of debt securities were outstanding at the balance sheet date.[90] For firms that had

[87] For large firms, industry peer groups cannot be constructed using NACE Rev. 2 codes. Many ultimate parents have code 6420 (management activities of holding companies), regardless of the industry, and subsidiaries one firm can have many different NACE Rev. 2 codes.

[88] Firms are included in the analysis only for the years in which they were publicly listed as a separate firm.

[89] For example, debts were incorrectly included in other liabilities or fully reported as short-term even though part of the debts was long term. Errors were identified by checking zero values, missing items, and large swings in balance sheet items.

[90] All types of debt securities with an original maturity of at least one year and reported in the financial statements under liabilities. This includes bonds, loan notes, convertibles, debenture stocks and industrial revenue bonds, secured and unsecured, publicly traded and privately placed. The €50 million threshold serves to exclude firms that only had issued debt for remuneration purposes or taken on debt as part of minor acquisition deals.

at least €50 million of debt outstanding via a Dutch SPE, the issuing SPE is also set to one. Furthermore, the onlending SPE dummy is one for firms with a Dutch SPE of which both assets and liabilities included at least €50 million of intra-group loans. To check whether SPE effects are specific to issuing and onlending SPEs, a general SPE dummy is constructed as well. This dummy is one for all firms with a Dutch subsidiary that meets the following criteria: total assets are at least €50 million, the assets are mainly participations in or loans to foreign affiliates, and the liabilities are mainly loans from foreign affiliates or financial debts. The main sources for this third step are annual reports and corporate websites, company records of Dutch SPEs, debt issuance prospectuses, and information from credit rating agencies and security exchanges.

The resulting data set has a total of 365 firm-year observations for 82 firms and 2,493 country-year observations, which are based on 9,371 underlying subsidiary-year observations. On average, the debt shifting regressions include 24 lowest-level subsidiaries in 7 countries per parent per year, compared to only two to five subsidiaries in other studies. UK and French country-level entities each constitute about 12% of total observations, whereas German entities constitute only 4%. This is due to differences in data availability in Amadeus. Earlier studies using Amadeus data (Barion et al., 2010; Huizinga et al., 2008; Overesch & Voeller, 2010) did not indicate that these differences would have major consequences. On average, the assets of the subsidiaries included in the regressions represent over 20% of consolidated firm assets. Taking into account that only EU subsidiaries are included and data availability for some EU countries is limited, this is an acceptable coverage of firm assets.[91]

Similar to other studies, leverage is calculated as the ratio of total liabilities minus accounts payable to total assets minus accounts payable. Most firms report substantial non-debt liabilities, though, notably pension provisions, deferred tax liabilities, prepaid income and accrued expenses. Therefore the debt ratio, defined as debt divided by debt plus equity, is used as an alternative measure that reflects a firm's choice between debt and equity more accurately. At the level of subsidiaries, leverage is the preferred measure, because non-current provisions are relatively small and alternative measures might be less reliable due to data errors. A few firm observations have negative equity, with a maximum firm leverage of 2.26 and debt ratio of 4.88. 17 country-level observations have a leverage that is higher or even negative; these are excluded from the analysis.

The control variables profitability and tangibility are defined as operating income (before financial items and taxes) divided by total assets and tangible fixed assets divided by total assets, respectively. 18 country-level observations with profitability below -1 or above +1 are excluded. The working capital ratio is calculated as working capital divided by total assets. Preliminary analysis shows that the working capital ratio

[91] If intermediate subsidiaries would be included in the analysis as well, total subsidiary assets would add up on average to 200% of firm assets, which confirms the importance of holding chains and the resulting double counting problem.

is not a suitable control variable for lowest-level subsidiaries, especially in combination with tangibility, because it is almost a function of leverage.[92] At the firm level, this problem does not occur.

### 4.4.2 Descriptive statistics

Table 4.1 provides descriptive statistics at the firm level. The first three data columns present means, median values and standard deviations for all firm-year observations. Mean firm sales and assets are relatively high because there are a few very large firms in the data set. The largest firm is DaimlerChrysler, with sales and assets exceeding €100 billion. The last three columns provide separate statistics for firm-year observations with no debt issued (or less than €50 million), with debt issued but not via a Dutch SPE, and with debt issued via a Dutch SPE. On average, firms with debt securities are larger and have a higher leverage than firms without debt securities, and firms with debt securities issued via Dutch SPEs are yet larger and more leveraged.

**Table 4.1** Descriptive statistics for firm-level variables

| | All firms | | | No debt securities issued | Debt issued, not via SPE | Debt issued via SPE |
|---|---|---|---|---|---|---|
| | mean | median | st. dev. | mean | mean | mean |
| Firm leverage ratio | 0.64 | 0.61 | 0.21 | 0.58 | 0.63 | 0.74 |
| Firm debt ratio | 0.48 | 0.45 | 0.38 | 0.38 | 0.48 | 0.64 |
| Debt securities dummy | 0.69 | 1 | 0.46 | 0 | 1 | 1 |
| Issuing SPE dummy | 0.20 | 0 | 0.40 | 0 | 0 | 1 |
| Onlending SPE dummy | 0.20 | 0 | 0.40 | 0.03 | 0.20 | 0.46 |
| General SPE dummy | 0.52 | 1 | 0.50 | 0.18 | 0.54 | 1 |
| Ultimate parent STR (%) | 33.0 | 30.0 | 8.2 | 32.2 | 31.2 | 38.7 |
| Firm sales (€ bn) | 12.7 | 5.3 | 21.6 | 3.1 | 9.8 | 34.3 |
| Firm assets (€ bn) | 15.0 | 5.8 | 26.8 | 3.1 | 12.2 | 40.0 |
| Firm profitability ratio | 0.08 | 0.07 | 0.09 | 0.08 | 0.07 | 0.09 |
| Firm tangibility ratio | 0.30 | 0.30 | 0.14 | 0.31 | 0.30 | 0.28 |
| Firm working capital ratio | 0.15 | 0.15 | 0.15 | 0.17 | 0.14 | 0.16 |

Note: descriptive statistics for all firm-year observations included in the empirical analysis; n = 365.

[92] On average, 73% of subsidiary assets are current assets and 22% are tangible fixed assets, and 80% of subsidiary liabilities are current liabilities. Thus, working capital ratio + tangibility = (current assets - current liabilities) / total assets + tangible fixed assets / total assets ≈ (total assets - current liabilities) / total assets, which for many observations is close or equal to 1 - leverage.

**Table 4.2** Descriptive statistics for country-level entity variables

| | All country-level entities | | | Firms without onlending SPE | Firms with onlending SPE |
|---|---|---|---|---|---|
| | mean | median | st.dev. | mean | mean |
| Entity leverage ratio | 0.61 | 0.64 | 0.29 | 0.59 | 0.68 |
| Entity STR (%) | 32.4 | 33.8 | 6.9 | 32.5 | 32.2 |
| Entity STR – Ultimate parent STR (%) | -1.4 | 0.0 | 9.9 | -0.5 | -4.3 |
| Entity sales (€ mln) | 235 | 45 | 1,047 | 135 | 566 |
| Entity assets (€ mln) | 196 | 31 | 601 | 147 | 357 |
| Entity profitability ratio | 0.07 | 0.05 | 0.13 | 0.07 | 0.05 |
| Entity tangibility ratio | 0.23 | 0.16 | 0.21 | 0.22 | 0.23 |

Note: descriptive statistics for all entity-year observations included in the empirical analysis; n = 2,458, based on 8,834 underlying lowest-level subsidiary-year observations.

Table 4.1 also shows that roughly half of the firms have a Dutch SPE. However, some SPEs are intermediate holdings only with no or limited debt financing activities. Dutch issuing SPEs are present in 20% of the observations. Onlending SPEs were also present for 20% of the observations and partly overlap with issuing SPEs. At the end of 2005, 16 firms in the data set together had approximately €42 billion of debt securities outstanding via Dutch issuing SPEs, out of their total debt (including bank loans) of €243 billion. For these firms, the median ratio of debt issued via Dutch SPE to total debt was 24%. This confirms that debt issuance via Dutch SPEs plays a significant role in their overall funding strategies. Debt securities in general play even a larger role for the firms that use them.

Table 4.2 shows descriptive statistics for country-level observations. Only 12% of these observations concerns domestic entities. The first three data columns present means, median values and standard deviations for all observations. The country-level entities are larger than individual subsidiaries in other studies, but leverage and other financial ratios are similar. The last two columns provide separate statistics for entities of firms without and with Dutch onlending SPEs, which account for roughly 75% and 25% of observations, respectively. On average, entities of firms with onlending SPEs are larger and have a higher leverage.

### 4.4.3 Concrete examples of SPEs

Various concrete examples of Dutch issuing SPEs show their role in debt financing at the firm level. The examples are selected with a view to diversity in SPE structures and home countries, taking into account the amount of information available about each structure.

A first example is Altadis Finance BV, a subsidiary of Spanish tobacco company Altadis SA. In 2003, this SPE raised €1.1 billion by issuing bonds with fixed interest

rates and maturities of 5 and 10 years. It lent the proceeds to the Spanish parent with matching maturities, but in part at variable interest rates, and used derivatives to hedge the resulting interest rate risk. The Dutch SPE did not have other activities, employees, or an office. Two other subsidiaries of Altadis issued debt securities as well. In 2005, a Spanish subsidiary issued a €500 million bond and a French subsidiary had €340 million of commercial paper outstanding at the end of the year.

A second example is Conti Gummi Finance BV, an SPE used by the German firm Continental AG to issue a €400 million convertible bond in 2004. The SPE lent the proceeds onwards to the parent with a matching maturity at a spread of 25 basis points. Continental AG also issued €500 million of non-convertible bonds in 1999 and 2001 and did so without using the Dutch SPE, which may suggest that the firm was specifically avoiding German withholding taxes on interest payments for convertible bonds. The Dutch SPE engaged in short-term lending to and from various affiliates as well, with credit and debit positions of approximately €60 million in 2005.

A third example is Saint-Gobain Nederland BV, which has issued bonds in various currencies and maturities since 1990. These funds were onlent to other group companies, mainly to the French parent Compagnie de Saint-Gobain SA. In 2005, the Dutch SPE had €4.0 billion of bond obligations, accounting for the largest part of the firm's total securitised debt of €5.1 billion.

A fourth example is Südzucker International Finance BV, a subsidiary of German food company Südzucker. This SPE issued virtually all of the firm's bonds, amounting to €1.8 billion in 2005, including ordinary corporate bonds as well as a convertible bond and a perpetual hybrid bond. The SPE lent the proceeds onwards to various affiliates, partly on a short-term basis, and entered into interest rate swap agreements with its German parent to hedge the resulting maturity mismatches.

A fifth example is BMW Finance NV. This SPE has a broad financing role for BMW's European and Asian affiliates. It manages the firm's euro cash pool and has integrated issuing and onlending activities. In 2005, it had roughly €5 billion of debt securities outstanding, mostly long-term debt denominated in euro or Japanese yen, and €1 billion of short-term debt to affiliates that could not be identified. At the firm level, BMW had a further €14 billion of bonds and commercial paper outstanding via other entities, mainly SPEs in Belgium and Delaware (US). The Dutch SPE onlent the funds to affiliates in Europe and Asia, but also in Canada, Mexico, and New Zealand, partly through a second Dutch SPE called BMW Holding BV. Apparently the terms of the loans differed from the funding and the first SPE used derivatives to hedge the resulting currency and interest rate risks. The second Dutch SPE also held BMW subsidiaries in some 25 countries worldwide.

Thus, the issuing role of the above SPEs ranges from one specific type of bond to issuing virtually all of a firm's debt securities. Some issuing SPEs transform the characteristics of external funding from fixed to variable interest or from long-term to short-term and perform related hedging activities. Whereas various issuing SPEs simply

pass on the funding to the parent company, some also have a role in the distribution of funds among affiliates.

Next, some examples of Dutch onlending SPEs show that their role in the capital structure of multinationals is different. Two examples were already provided above; the SPEs of Continental and BMW combined onlending and issuing activities. In these case of Continental, the nature of the onlending activities could not be determined. In the case of BMW, the loans to and from affiliates were apparently related to internal cash pooling.

A third example is Earlsfort Holdings BV, an onlending SPE of Irish food company Greencore Group plc (which has its headquarters in Earlsfort Terrace, Dublin, hence the SPE's name). In 2005, this SPE passed on a loan of approximately €400 million from one affiliate, possibly located in Ireland or Jersey, to various other affiliates, including in the UK. Thus, Greencore may have used the onlending structure to channel internal interest payments to a lowly taxed financing affiliate, but this could not be confirmed on the basis of public filings. The internal loans were large considering the firm's consolidated total assets of €1.2 billion.

A fourth, somewhat similar example is Scania Group Treasury Netherlands CV, a limited partnership indirectly owned by Swedish trucks manufacturer Scania AB. In 2005, this SPE had onlent €1 billion from a treasury affiliate in Luxembourg to some 30 affiliates in various countries, including in Europe. The SPE's onlending volume was large compared to Scania's consolidated total assets of €7 billion. It passed on €26 million of interest payments to the Luxembourg affiliate, which may have benefitted from a low-tax regime. Most of the Dutch SPE's loans and borrowings were long-term, but not with fully matching maturities, and the SPE used derivatives to hedge the resulting risks.

A fifth example is UPM-Kymmene Finance BV, a subsidiary of Finnish pulp and paper company UPM-Kymmene Oyj. In 2005, this SPE passed a long-term loan of approximately €750 million, maturing in 2015, from a Canadian affiliate onwards to a German affiliate. It hedged the associated currency risk via a swap agreement with the Finnish parent. The internal loan could be related to tax planning opportunities arising from UPM-Kymmene's acquisition of Canadian and German businesses in 2000 and 2001. However, publicly available information was insufficient to determine the precise purpose of this structure.

A sixth example is Nokia Finance International BV, a very large SPE with a Swiss branch. The Dutch head office is administrated by an external service provider, whereas the Swiss branch acts as the primary internal bank of the Nokia group and has some 20 employees. Such structures allow companies to access the Dutch tax treaty network while allocating most profits to Switzerland, where they benefit from a low-tax regime (Berne Declaration, 2011). Apart from providing treasury services, such as netting and cash pooling, the Swiss branch managed currency risks using forward contracts. At the end of 2005, the SPE had taken €15 billion of deposits from group companies, provided

€10 billion of short-term loans to group companies, and invested €7 billion in government bonds and other highly liquid securities. The SPE's net interest income for 2005 amounted to €110 million (including foreign exchange losses). The SPE also held subsidiaries in about 25 countries worldwide.

Thus, different onlending SPEs have somewhat different roles. Some pass on loans from one specific affiliate to many other affiliates, a structure consistent with internal debt shifting involving a special lowly taxed affiliate. By contrast, other onlending SPEs pass on a loan to one specific affiliate only or take deposits from many affiliates. Although these structures may serve different purposes, there could be a debt shifting element as well. This is difficult to verify because the affiliates that receive interest payments through Dutch SPEs are usually not identified. For the purpose of this research, it is assumed that all onlending SPEs can facilitate debt shifting.

## 4.5 Empirical results

### 4.5.1 Debt financing at the firm level

Table 4.3 shows the regression results of the firm-level specifications with the debt ratio as the main dependent variable. Column (1) shows the baseline specification without dummy variables for debt securities and SPEs. Following other studies, it uses a logarithmic transformation of firm sales as the firm size variable. Some control variables have unexpected coefficients. Contrary to expectations, firm size has no significant effect. Perhaps this is because some firms in the data set are so large that economies of scale in debt financing have been exhausted. Next, higher profitability is associated with a higher debt ratio, which is in line with theory but not with results from earlier studies. The negative coefficient for tangibility suggests that the availability of collateral does not increase the use of debt. For large multinationals, whose debt is largely unsecured, this makes sense. Instead, it suggests that the depreciation of investments may generate a non-debt tax shield that reduces the incentive for debt financing (Büttner et al., 2011). Next, firms with relatively more working capital have a lower debt ratio. This may indicate that the working capital ratio alone is not a good indicator for the probability of financial distress or still partly endogenous. Finally, industry fixed effects are significant and substantial, as expected.

Specification (2) adds the debt securities dummy. The use of debt securities is associated with significantly higher debt financing, which confirms hypothesis F1. Everything else equal, large firms that issue debt securities finance 12% more of the total debt and equity on their balance sheet through debt. Specification (3) also adds the issuing SPE dummy. The issuance of debt securities via a Dutch SPE is associated with a further significant increase in debt financing relative to equity, over and above the increase of the debt ratio associated with debt securities in general. This confirms

**Table 4.3** Analysis of debt financing at the firm level

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Debt securities dummy | - | 0.13*** (0.05) | 0.12** (0.05) | 0.12*** (0.05) | 0.13** (0.05) | 0.10*** (0.02) |
| Issuing SPE dummy | - | - | 0.13** (0.06) | - | - | 0.06** (0.03) |
| Onlending SPE dummy | - | - | - | 0.02 (0.05) | - | - |
| General SPE dummy | - | - | - | - | 0.00 (0.04) | - |
| Ultimate parent STR | -0.26 (0.25) | -0.21 (0.25) | -0.32 (0.25) | -0.21 (0.25) | -0.21 (0.25) | -0.23** (0.11) |
| Firm size | -0.03 (0.04) | -0.09** (0.05) | -0.13*** (0.05) | -0.10** (0.05) | -0.10* (0.05) | -0.03 (0.02) |
| Firm profitability | 0.54*** (0.20) | 0.53*** (0.20) | 0.50** (0.20) | 0.53*** (0.20) | 0.53** (0.20) | -0.25*** (0.10) |
| Firm tangibility | -0.57** (0.23) | -0.57** (0.23) | -0.52** (0.23) | -0.57** (0.23) | -0.57** (0.23) | -0.13 (0.10) |
| Firm working capital ratio | -0.89*** (0.14) | -0.88*** (0.14) | -0.88*** (0.14) | -0.87*** (0.14) | -0.88*** (0.14) | -0.47*** (0.07) |
| Constant | 0.97*** (0.19) | 1.09*** (0.19) | 1.23*** (0.20) | 1.10*** (0.20) | 1.09*** (0.19) | 0.69*** (0.09) |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| n | 365 | 365 | 365 | 365 | 365 | 356 |
| $R^2$ | 0.16 | 0.18 | 0.21 | 0.18 | 0.18 | 0.27 |

Note: Dependent variable is the firm debt ratio, reflecting the consolidated balance sheet of the ultimate parent. Firm size is calculated as [10]log(sales / €1 mln). Standard errors are in parentheses. * denotes p < 0.10; ** p < 0.05; *** p < 0.01.

hypothesis F2. The additional use of a Dutch issuing SPE facilitates higher debt financing as much as the use of debt securities in general. This is a rather strong yet not implausible result.

Specifications (4) and (5) test whether Dutch onlending SPEs or Dutch SPEs in general have a similar effect on debt ratios. The effect of such SPEs is insignificant, though. This confirms that the higher debt financing associated with issuing SPEs is indeed related to the specific purpose of those SPEs and does not merely reflect more elaborate tax planning or more aggressive tax strategies in general.[93]

[93] Moreover, it indicates that Dutch onlending SPEs are not primarily used to pass on external debt financing issued in another country.

Specification (6) excludes observations of firms with negative equity. Negative equity is often temporary, typically the result of accumulated losses or deliberate financing decisions, and properly reflects real-world capital structures.[94] The exclusion of negative equity observations is therefore somewhat arbitrary and useful as a robustness check only. Although only nine observations are excluded, these have an average debt ratio of 2.14, compared to an average of 0.44 for the remaining 356 observations. In the regression results, the issuing SPE coefficient is reduced by half but remains significant.

Other robustness checks, not shown in the table, include the following: using the original firm data from Amadeus without manual additions and corrections, using assets instead of sales to measure firm size, leaving out the working capital ratio or industry fixed effects, using leverage instead of the debt ratio as the dependent variable, and testing the issuing SPE dummy among the subset of firms that have outstanding debt securities. The main results are robust to all of these variations.

### 4.5.2 Debt financing at the subsidiary level

Table 4.4 shows regression results of country-level entity specifications for the analysis of debt financing at the subsidiary level. The dependent variable is the country-level entity's leverage, reflecting the combined balance sheets of lowest-level subsidiaries. Column (1) presents the baseline specification. It uses the same logarithmic transformation of sales as above to measure entity size. The host country STR coefficient is significant, but the coefficient for the difference between host and home country STR is not. The latter contrasts with other studies, but is in line with expectations for large multinationals. The effects associated with firm leverage, entity size and entity profitability all have the expected sign and are highly significant. Entity tangibility does not have a significant effect, though, while a negative effect was expected due to the debt shield of depreciation.

Column (2) is similar to (1) but includes only wholly-owned subsidiaries in the country-level entities.[95] The entity STR coefficient now becomes larger and fully significant. This is consistent with the finding from other studies that leverage is more responsive to tax variables for subsidiaries that are wholly owned (Büttner & Wamser, 2007; Mintz & Weichenrieder, 2005). Keeping ultimate parent STR constant, a 1 %-point increase in entity STR on average increases leverage by 0.3 %-point. The size of

[94] This can be illustrated with firms from the data set. Premier Foods plc had been deliberately loaded with debt by private equity investors when it became publicly listed in 2005. During the period 1997-2005, the book value of Imperial Chemical Industries plc's equity was relatively small; in 2001 and 2005 it was slightly negative and in 1997, 1999 and 2003 it was slightly positive. For Charter plc, it was negative in 1997 but positive in later years, and for Rhodia SA, it was negative in 2005 but positive in earlier years.

[95] These are defined as subsidiaries for which Amadeus gives an exact total ownership percentage of at least 98% or "WO" (subsidiary is wholly owned, that is, for at least 98%) and/or a global ownership qualification of "UO+" (direct ownership percentage at each step in the holding chain is at least 98%).

**Table 4.4** Analysis of debt financing at the subsidiary level

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| Firm size | - | - | 0.05*** (0.01) | 0.04*** (0.01) | 0.03** (0.01) | 0.05*** (0.01) | 0.05*** (0.01) | 0.03** (0.01) |
| Onlending SPE dummy | - | - | - | 0.04** (0.02) | 0.06*** (0.02) | - | - | 0.03** (0.01) |
| Issuing SPE dummy | - | - | - | - | - | -0.00 (0.02) | - | - |
| General SPE dummy | - | - | - | - | - | - | -0.02 (0.01) | - |
| Entity STR | 0.25** (0.11) | 0.40*** (0.12) | 0.16 (0.11) | 0.16 (0.11) | 0.29** (0.12) | 0.29** (0.12) | 0.29** (0.12) | 0.31*** (0.10) |
| Entity STR – Ultimate parent STR | -0.09 (0.07) | -0.11* (0.07) | 0.03 (0.07) | 0.03 (0.07) | 0.02 (0.07) | 0.01 (0.07) | 0.01 (0.07) | 0.05 (0.07) |
| Firm leverage | 0.11*** (0.04) | 0.10*** (0.04) | 0.10*** (0.04) | 0.09** (0.03) | 0.08** (0.03) | 0.09*** (0.04) | 0.10*** (0.03) | 0.09** (0.03) |
| Entity size | 0.041*** (0.008) | 0.034*** (0.008) | 0.032*** (0.008) | 0.030*** (0.008) | 0.022** (0.009) | 0.024*** (0.009) | 0.025*** (0.009) | 0.057*** (0.007) |
| Entity profitability | -0.83*** (0.05) | -0.79*** (0.06) | -0.81*** (0.05) | -0.80*** (0.06) | -0.77*** (0.06) | -0.78*** (0.06) | -0.78*** (0.06) | -0.53*** (0.05) |
| Entity tangibility | -0.03 (0.03) | -0.02 (0.03) | -0.04 (0.03) | -0.04 (0.03) | -0.03 (0.03) | -0.03 (0.03) | -0.03 (0.03) | -0.07** (0.03) |
| Constant | 0.46*** (0.05) | 0.42*** (0.05) | 0.33*** (0.06) | 0.37*** (0.06) | 0.36*** (0.06) | 0.30*** (0.06) | 0.28*** (0.06) | 0.26*** (0.06) |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| k (firm-year groups) | 365 | 358 | 365 | 365 | 358 | 358 | 358 | 365 |
| n (entity-year obs.) | 2,458 | 2,191 | 2,458 | 2,458 | 2,191 | 2,191 | 2,191 | 2,351 |
| Subsidiaries / entity | 3.6 | 3.2 | 3.6 | 3.6 | 3.2 | 3.2 | 3.2 | 3.7 |
| $R^2$ | 0.16 | 0.15 | 0.17 | 0.17 | 0.16 | 0.15 | 0.16 | 0.15 |

Note: Dependent variable is country-level entity leverage, reflecting the combined unconsolidated balance sheets of a firm's lowest-level subsidiaries in a country. Firm and country-level entity size are calculated as $^{10}$log(sales / €1 mln). Standard errors, robust to clustering in firm-year groups, are in parentheses. Observations are weighted by total assets of all subsidiaries of the same firm in the same country. * denotes p < 0.10; ** p < 0.05; *** p < 0.01.

this effect is similar to the estimates (without firm heterogeneity variables) of Büttner et al. (2011), but smaller than the estimates of Mintz and Weichenrieder (2005), Barion et al. (2010), and Møen et al. (2011).

Specification (3) adds the sales variable for firm size to test whether large firms finance their EU subsidiaries with relatively more debt. The effect is significant, which confirms hypothesis S1. If firm sales increase by a factor ten, everything else equal, the

leverage of subsidiaries in an EU country increases with 5 %-points. Entity STR becomes insignificant. Specification (4) adds the onlending SPE dummy to test whether large firms use onlending SPEs to implement such financing strategies. The use of a Dutch onlending SPE is indeed associated with significantly higher country-level entity leverage, which confirms hypothesis S2. On average, the difference in leverage is 4 %-points. This finding does not result from the correlation between the use of SPEs and firm size, because firm size is controlled for.[96] The effect of firm size remains significant, which indicates that larger firms also use strategies to shift debt towards EU subsidiaries that do not involve Dutch SPEs. Column (5) restricts the observations again to wholly-owned subsidiaries. This increases the effect of strategies involving Dutch onlending SPEs. Entity STR becomes significant again and its partial effect on entity leverage is similar to column (2).

Analogous to the firm-level specifications, columns (6) and (7) test whether Dutch issuing SPEs or Dutch SPEs in general also have an effect on the leverage of wholly-owned subsidiaries in an EU country. The results do not show significant direct effects, though. This confirms that the leverage effect associated with the use of onlending SPEs is indeed related to the specific operations of those SPEs and not merely driven by unobserved factors that also influence the use of SPEs in general.

Specification (8) excludes all entity observations with negative equity, in line with most studies on debt shifting. Similar to the firm-level specifications, this is useful as a robustness check only and somewhat arbitrary, because negative equity may be unintended and is often temporary.[97] Compared to specification (4), the firm size and onlending SPE coefficients are slightly smaller and host country STR becomes significant again. The tangibility coefficient is significantly negative, as in Büttner et al. (2011) and Huizinga et al. (2008).

Other robustness checks, not shown in the table, include using the uncorrected Amadeus data, leaving out tangibility as a control variable, using assets instead of sales to measure firm and entity size, including intermediate-level subsidiaries with limited fixed financial assets,[98] excluding domestic entities, and combinations of these variations. The main results are very similar to columns (4) and (5). It can be concluded that the findings are robust.

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[96] The correlation between the onlending SPE dummy and the sales variable for firm size is 0.42. A probit regression shows that if firm size doubles and other firm level variables are kept constant, the probability of having a Dutch onlending SPE increases approximately 10%-points.

[97] Out of the 107 entity observations with negative equity, 78% concern entities that had positive equity in another year.

[98] These are subsidiaries that have one or more subsidiaries themselves. A relatively low threshold of fixed financial assets is used to include only intermediate-level subsidiaries with substantial operational activities and to limit double-counting of assets and equity in holding chains. Approximately half of the 4,700 intermediate-level subsidiary observations are below this threshold. The number of entity observations slightly increases to 2,759.

## 4.6 Conclusions and discussion

This chapter analysed external and internal debt financing of large European multinationals. At the firm level, it confirmed the hypotheses that the use of debt securities is associated with higher debt financing relative to equity and that the use of a Dutch issuing SPE is associated with yet higher debt financing. These effects are robust to alternative specifications and relatively large.

Controlling for relevant firm characteristics, firms with a Dutch issuing SPE on average have a ten percentage points higher debt ratio. One might wonder how this effect can be so large. If the effect is due to strongly reduced borrowing costs, then why do not all large European firms choose to issue debt through Dutch SPEs? At least two answers to this question are possible. First, the use of Dutch issuing SPEs and the amount of debt financing may both result from a firm's overall tax strategy. Firms that pursue corporate tax deductions more aggressively will use more debt and are also more inclined to avoid withholding taxes. Second, large EU firms with a more risky financing structure may require a broader investor base and more diverse debt securities to place all their debt. This probably increases the benefits of a Dutch SPE, because avoidance of withholding tax may be related to creditors from particular countries or specific types of debt securities only.

At the subsidiary level, the analysis confirmed the hypotheses that EU subsidiaries of larger multinationals are more leveraged and that the use of Dutch onlending SPEs is also associated with higher subsidiary leverage. These effects are robust as well. In addition, the analysis shows that in large firms, the sensitivity of subsidiary leverage to host country STR is relatively low. In combination, these results suggest that large firms are more likely to shift debt from special lowly taxed affiliates towards subsidiaries in most or all EU countries and that this is partly facilitated by Dutch onlending SPEs.

However, the results provide only indirect evidence for such structures. Due to data limitations, it could not be directly verified that SPEs channelled interest payments from EU subsidiaries onwards to lowly taxed affiliates. Various concrete examples show that some, but not all, onlending SPEs are likely to facilitate such structures. A few more general methodological limitations should also be noted, but these are unlikely to affect the overall results.

The consequences of external and internal debt financing through SPEs are profound. Social benefits include higher after-tax returns for firms and potentially higher investment, which in turn may generate additional economic activity and tax revenues. The corresponding social costs consist of lower tax revenues at a given level of investment, implementation costs of tax planning, and higher financial risks in the corporate sector. In addition, the use of SPEs affects market functioning. It reduces differences in taxation between large firms from different EU countries, while it increases differences in taxation between large and small firms due to fixed implementation costs. The most profound impact, though, is that tax-planning structures

involving SPEs effectively limit the policy space of individual EU countries. The EU system for withholding taxes is like a free trade area with members that set their own tariffs for external trade while there are no rules of origin. Inevitably, such a system results in arbitrage, and Dutch SPEs are instrumental in arbitrage schemes to avoid interest withholding tax. A policy option for the EU, to address the negative impacts of arbitrage, is to consider uniform EU-wide external withholding taxes.

**Annex 4.1** Industries and multinationals in the data set

| Industry peer group | Firms |
|---|---|
| Food products | Südzucker AG |
| | Danisco A/S |
| | Tate & Lyle plc |
| | Associated British Foods plc |
| | Uniq plc |
| | Premier Foods plc |
| | Kerry Group plc |
| | Greencore Group plc |
| Tobacco | Altadis SA |
| | British American Tobacco plc |
| | Swedish Match AB |
| | Imperial Tobacco Group plc |
| Pulp & paper | Svenska Cellulosa AB |
| | M-Real Oyj |
| | Ahlstrom Oyj |
| | UPM-Kymmene Oyj |
| | Stora Enso Oyj |
| | Holmen AB |
| Paints | Imperial Chemical Industries plc |
| | Lanxess AG |
| | BASF AG |
| | Rhodia SA |
| Rubber products | Trelleborg AB |
| | Continental AG |
| Cement & building materials | Wienerberger AG |
| | Heidelberg Cement AG |
| | FLSmidth & Co. A/S |
| | Vicat SA |
| | Compagnie de Saint Gobain SA |
| | Lafarge SA |
| | Imerys SA |
| | Hanson plc |
| | CRH plc |
| | Buzzi Unicem SpA |
| | Italmobiliare SpA |
| Steel | ThyssenKrupp AG |
| | GEA Group AG |
| | Acerinox SA |
| Metals | Eramet SA |
| | Delta plc |

| Industry peer group | Firms |
|---|---|
| Packaging | Rexam plc |
| | Huhtamäki Oyj |
| | RPC Group plc |
| | Bunzl plc |
| Electric equipment | Siemens AG |
| | Böhler - Uddeholm AG |
| | Vossloh AG |
| | Vestas Wind Systems A/S |
| | Groupe SEB SA |
| | Alstom SA |
| | Enodis plc |
| | Tomkins plc |
| | Invensys plc |
| | Spirent Communications plc |
| | Indesit Company SpA |
| | Charter plc |
| | Pirelli & Co SpA |
| | Sandvik AB |
| | AB Electrolux |
| | Atlas Copco AB |
| | Cardo AB |
| Telecommuni-cations equipment | Nokia Oyj |
| | Alcatel – Lucent SA |
| | Telefon AB LM Ericsson |
| | Telent plc |
| | Safran SA |
| Motor vehicles | Volkswagen AG |
| | Daimler Chrysler AG |
| | Porsche AG |
| | Man AG |
| | Renault SA |
| | BMW AG |
| | PSA Peugeot Citroën |
| | Fiat SpA |
| | AB Volvo |
| | Scania AB |
| Aircraft & defence | Smiths Group plc |
| | Meggitt plc |
| | Thales SA |
| | BAE Systems plc |
| | Saab AB |
| | Rolls-Royce Group plc |

# 5 Countries affected by specific tax avoidance strategies

This chapter has been submitted for publication in an academic journal.

**Abstract** *Many large firms use Dutch Special Purpose Entities (SPEs) to avoid corporate taxes. This chapter shows that Dutch SPEs mainly pass on equity and loans to foreign affiliates, sometimes combined with debt issuance. These structures facilitate avoidance of withholding taxes, particularly in specific developing and EU countries, including Indonesia, the Philippines, Ghana, Mongolia, Portugal, and Spain. Dutch SPEs also facilitate profit shifting through royalty payments. Tax avoidance via SPE structures has major implications for international tax policy. Countries could respond by adjusting withholding taxes unilaterally, improving anti-avoidance measures, or renegotiating certain tax treaties.*

## 5.1 Introduction

Developing countries require sustainable sources of finance for development. Most countries will need to increase domestic tax revenues to gradually replace aid and debt as sources of finance for public goods and services (OECD & AfDB, 2010; UNCTAD, 2010). For low income countries, this need is often reinforced by the loss of tariff revenues due to trade liberalisation (Braunsgaard & Keen, 2005; Khattry & Mohan Rao, 2002). In the EU, raising tax revenues is a priority as well, but for different reasons. Various EU countries are faced with unsustainable fiscal deficits, because their public debt and borrowing costs increased sharply as a consequence of the financial crisis.

In developing countries, donor support to strengthen tax systems mainly addresses domestic constraints, such as administrative capacity (OECD, 2012c). However, international constraints are important as well. These include illicit capital flight and evasion of personal income tax on assets held offshore (Ndikumana & Boyce, 2008; UNCTAD, 2010) and transfer pricing abuses and international tax arbitrage by multinationals (Lesage et al., 2010; OECD & AfDB, 2010). Developing countries can take steps to mitigate these problems themselves, but donor countries can also help to reform the international tax system. In some EU countries with large deficits, curbing domestic tax evasion is a priority. Regarding international constraints, in 2012, the European Commission launched an initiative against so-called double non-taxation, targeting international tax arbitrage.

Policies against aggressive corporate tax avoidance often focus on profit shifting to jurisdictions with low or zero corporate income taxes. However, withholding taxes (WHT) require attention too. These are a material source of revenue by themselves, especially for countries with relatively large foreign investments. In addition, withholding taxes on interest or royalties can form a barrier against profit shifting (Conklin & Robertson, 1999) and withholding taxes on dividends provide an incentive against repatriation of profits and capital. Corporate structures to avoid withholding taxes usually involve conduit entities in countries with favourable tax treaties, such as the Netherlands, Luxembourg and Mauritius. Tax treaties reduce or lock in withholding taxes on a bilateral basis.

This chapter provides new insights on withholding tax and tax treaty policy. These insights follow from an analysis of international tax avoidance strategies involving Dutch Special Purpose Entities (SPEs). The chapter addresses three related questions. First, what are the main Dutch SPE types and what tax avoidance strategies do they facilitate? Second, considering the total investment positions and income flows of all Dutch SPEs, what tax avoidance strategies have the largest consequences for international tax policy? And third, which countries are most affected by particular tax avoidance strategies? The results indicate that in general, policy implications are largest for developing and EU countries. In specific countries, such as Indonesia and Portugal, multinationals avoided more than €50 million of taxes in 2010. In other countries, such

as Mongolia and Ghana, foreign firms have invested via SPEs structures that may result in substantial future tax avoidance. Policy options for these countries are discussed at the end of the chapter.

This chapter contributes to existing research by analysing which individual countries are most affected and why. Previous studies show that the Netherlands is a key conduit country for FDI and hosts many debt-issuing SPEs (Desai et al., 2003; Dreßler, 2012; Weichenrieder & Mintz, 2008; Weyzig, in press; Weyzig & Van Dijk, 2009). In addition, several case studies provide examples of tax avoidance via Dutch SPEs (Bender, 2007; Berne Declaration, 2011; Hearson & Brooks, 2010; Kandev, 2009; Kleinbard, 2011; Michielse, 2011). However, so far a more comprehensive analysis was still lacking. This chapter combines insights from case studies and case law with a quantitative analysis that covers all firms with large Dutch SPEs. It uses a unique combination of data sources, including anonymous micro data on Dutch SPEs, macro data from the IMF, OECD and BIS, data from security exchanges and individual company accounts.

The outline of the chapter is as follows. The next section reviews existing literature on Dutch SPE structures. After that, each of the three research questions above is addressed in a separate empirical section. These sections include descriptions of the relevant data sources and methodology. Finally, the last section presents overall conclusions and discusses policy implications.

## 5.2 Literature review

### 5.2.1 Introduction

This literature review discusses reasons why multinationals use Dutch SPEs. It draws from academic sources as well as court and arbitration cases and source documents of civil society reports and news articles. The various reasons are grouped into four subsections. The first two subsections focus on FDI routed through the Netherlands, commonly referred to as FDI diversion. They discuss tax and non-tax reasons, respectively. The third subsection focuses on external funding (from outside the corporate group) via Dutch SPEs and the fourth on the role of Dutch SPEs in trading services or goods. These last two subsections discuss tax strategies only, because no information was found on non-tax reasons.

### 5.2.2 FDI diversion for tax reasons

Previous research shows that Dutch tax treaties are a key determinant of FDI diverted through the Netherlands. In part, this is due to specific corporate structures aiming to avoid dividend withholding taxes (Weyzig, in press). Investing in foreign countries via a Dutch holding generally allows to benefit from the reduction of host country

withholding taxes under these treaties. Since 2006, many firms have extended these holding chains by inserting a Dutch members cooperative between the Dutch holding and its foreign parent. Until 2012, this allowed to avoid any Dutch withholding tax on profits distributed onwards to the home country as well, because profit distributions by cooperatives were not treated as dividends.[99] Firms may also avoid Dutch dividend withholding tax by distributing income in the form of capital repayments (Merks, 2011). Other aspects of tax treaties, such as legal certainty or reduced withholding taxes on interest, probably play a role for FDI diversion as well (Weyzig, in press).

In one example, in 2009, the Canadian firm Ivanhoe Mines (now Turquoise Hills Resources) transferred most of its stake in the Mongolian copper mine project Oyu Tolgoi LLC to a newly established Dutch company, which it holds via a Dutch cooperative. As a consequence, the dividends from the Mongolian subsidiary are not subject to the standard 10% withholding tax rate specified in the investment agreement or the 5% rate of the Mongolia-Canada tax treaty, but exempt under the Mongolia-Netherlands treaty. At the time, profits distributed onwards via the Dutch cooperative to the Canadian parent would have been exempt from withholding tax as well (Michielse, 2011; Sunley et al., 2010). In another example, Volvo from Sweden and Henlys Group from the UK set up a Dutch holding company to acquire the Canadian firm Prévost Car. As a consequence, the dividends they received from Prévost were subject to the 5% withholding tax rate under the Canada-Netherlands tax treaty instead of the 15% and 10% rates under the Canada-Sweden and Canada-UK tax treaties, respectively (Kandev, 2009).[100] Some firms use a Dutch intermediate holding with a Swiss branch. Examples are commodity traders Trafigura and Gunvor, who carry out their main trading activities in Switzerland. This structure allows them to access Dutch tax treaties, which generally specify lower withholding taxes than Swiss treaties, while allocating most of their trading profits to Switzerland, where they are taxed at a low rate (Berne Declaration, 2011; Thuronyi, 2001).

Avoidance of host country tax on capital gains can be another reason to invest via a Dutch holding. This is illustrated by the Lamesa Holding case concerning a US private equity firm that acquired an Australian mining company via a Dutch conduit.[101] When the conduit sold the mining company's shares, the capital gains on the mining property were exempt from Australian tax under the Netherlands-Australia tax treaty and from Dutch tax under domestic tax rules (Bender, 2007).

Firms may also avoid host country corporate income tax through hybrid financing via Dutch SPEs. Under certain conditions, interest payments on so-called profit participating loans from Dutch entities are regarded as dividends for Dutch tax

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[99] A cooperative must have at least two members, so most firms divide the direct ownership of the Dutch cooperative between two legal entities in the home country. In 2012, the Dutch government introduced anti-abuse legislation, treating distributions to foreign members as dividends if a structure mainly aims to avoid dividend withholding tax.

[100] *Prévost Car Inc. v. Canada*, Canadian Federal Court of Appeal, case no. 2009 FCA 57.

[101] *Lamesa Holding BV v. Commissioner of Taxation*, Federal Court of Australia, case no. 1999 FCA 612.

purposes.[102] Since 2007, these payments are tax exempt in the Netherlands, even if they are tax deductible in the source country (Heithuis, 2006). Examples of countries that allow such deductions are France, Belgium, Spain, and Finland.

Various studies show that multinationals from countries that tax foreign dividend income, notably the US, invest via intermediate holdings in so-called base countries like the Netherlands to avoid this home country tax (Altshuler & Grubert, 2002; Desai et al., 2003; Grubert, 1998; Weichenrieder & Mintz, 2008). For US firms, this frequently involves foreign subsidiaries that are disregarded as separate entities for US tax purposes. Statistics show that large US investments in the Netherlands relatively often involve such entities (Mahony & Miller, 2011). Other data show that Dutch subsidiaries distributed approximately USD 90 billion of dividends qualifying for the US tax holiday on repatriated foreign profits during 2004-2006. This was almost a third of total qualifying dividends from all countries worldwide (Redmiles, 2008). Thus, multinationals use Dutch holdings to avoid home country taxes on foreign profits as well as host country taxes.

### 5.2.3 FDI diversion for non-tax reasons

FDI diversion via the Netherlands can also be motivated by non-tax reasons, such as investment protection under Bilateral Investment Treaties (BITs). As of June 2011, at least 29 claims had been filed by foreign-controlled Dutch intermediate holdings that sought protection under a Dutch investment treaty (Van Os & Knottnerus, 2011).

A striking example is the investment in Aguas del Tunari, a privatised drinking water enterprise in Bolivia, by utilities firms Bechtel from the US and Abengoa from Spain. After public protests in 2000 about access to drinking water, the Bolivian government cancelled the concession to Aguas del Tunari. Anticipating this, Bechtel and Abengoa had transferred the Aguas del Tunari shares to a Dutch holding. They subsequently claimed compensation under the Netherlands-Bolivia investment treaty.[103] Similarly, in 2005, Mobil Corporation transferred the ownership of its oil projects in Venezuela to a Dutch holding before these projects were nationalised, in order to claim protection under the Netherlands-Venezuela investment treaty (Blyschak, 2011). The arbitration tribunals allowed both claims to proceed despite the obvious diversion of the investments.

Beyond protection under bilateral treaties, one might expect that FDI diversion can reduce exposure to political instability, corruption, or weak legal infrastructure in the home and host country. Anecdotal evidence suggests that this is relevant for joint ventures. However, a quantitative study found that home and host country corruption have no significant impact on overall patterns of FDI diversion via the Netherlands (Weyzig, in press).

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[102] *X B.V. v. Deputy Minister of Finance*, Dutch Supreme Court, case no. AT5958.

[103] Aguas del Tunari SA v. The Republic of Bolivia, ICSID, case no. ARB/03/2.

### 5.2.4 Tax strategies involving external funding

Some tax avoidance strategies involve the diversion of external debt or equity funding rather than FDI. Some non-financial firms from EU countries use Dutch conduits to issue debt securities. This eliminates any withholding taxes on interest payments to foreign creditors, because payments to a Dutch conduit are exempt under the EU Interest and Royalties Directive and the Netherlands has no withholding tax on interest. The Dutch conduits usually onlend the funds to the foreign parent company or other affiliates (DNB, 2009a). This tax strategy is similar to the issuance of bonds by US multinationals via the Netherlands Antilles in the past (Papke, 2000). Firms from non-EU countries can use this strategy if the withholding tax rate on interest payments to Dutch affiliates is lower than the average rate on payments to foreign non-affiliated creditors. The diversion of debt financing can involve bank loans as well. Some foreign financial firms also use Dutch special purpose vehicles to issue structured products, such as securities backed by foreign assets (DNB, 2009b).

In one example, a Dutch financing conduit may also have facilitated avoidance of corporate income tax. This example concerns a conduit of Energias de Portugal that onlends financing from debt issuance and bank loans to affiliates in Portugal and Spain. An agreement with the Dutch tax authority specified its minimum taxable income as an arms-length return on equity, plus a spread of 0.03% on on-lent funds, minus operational costs. Apparently the agreement allowed the conduit to earn some €12 million of net interest income effectively tax free in the years 2008 and 2009 combined. For the years 2010 to 2012, the conduit reported much higher net interest income. However, in 2012 it was decided that the agreement with the tax authority did no longer apply from 2010 onwards, so for these years the full profits of the conduit were subject to corporate income tax in the Netherlands.[104]

Next, some foreign multinationals (that are no joint ventures) have their ultimate parent company in the Netherlands. The tax and non-tax benefits of these structures are largely similar to those of Dutch intermediate holdings. Withholding tax rates on dividend payments to external shareholders are not exceptionally low.

Various examples of such multinationals are publicly known or have attracted media attention.[105] These include Ikea, Pluspetrol, EADS, STMicroelectronics, X5 Retail Group, ShalkiyaZinc, PPF Group, Chicago Bridge & Iron, Celtel (since 2010 part of Bharti Airtel), and James Hardie Industries (in 2010 relocated to Ireland). The

[104] The company initially reported an effective tax rate on the conduit's profit for 2010 of 1.4%, but in 2012 this was adjusted to 25%. See also European Commission (TAXUD), Summary report of the responses received on the public consultation on factual examples and possible ways to tackle double non-taxation cases, 5 Jul 2012.

[105] See for example "IKEA: Flat-pack accounting," The Economist", 11 May 2006; Tax Justice Network blog, http://taxjustice.blogspot.nl/2009/06/fiscal-fireworks-dutch-announce-5-tax.html (accessed 23 Aug 2012) on James Hardie; Permanent People's Tribunal (2010), "The European Union and transnational corporations in Latin America" on Pluspetrol.

shareholding structure differs per firm. For example, EADS is partly listed on several European exchanges, X5 Retail Group is listed in London, and Chicago Bridge & Iron in New York. South American oil company Pluspetrol and Czech private equity firm PPF Group are privately held by foreign investors. Ikea has no shareholders, but is owned by a Dutch foundation and controlled by the family of Ikea's founder. Some of these multinationals, such as Pluspetrol and X5 Retail Group, do not have a physical presence in the Netherlands.

### 5.2.5 Tax strategies involving trade in services or goods

In all tax avoidance strategies reviewed above, diversion of investment and borrowings plays a key role. Other strategies depend on trade arrangements instead. These trading strategies have an investment component as well, but in contrast to the investment strategies above, tax is mainly avoided on trading income and not on investment income.

Several studies found evidence that R&D-intensive firms have more flexibility to shift profits (Desai et al., 2006; Grubert, 2003a; Stöwhase, 2002). For example, US legislation facilitates the migration of intellectual property to tax haven affiliates through cost-sharing agreements with R&D sites in the US (Mutti & Grubert, 2009). As a consequence, Forest Laboratories and Google were able to locate key intellectual property in Bermuda, a zero tax jurisdiction. They collected royalties for the use of this intellectual property via Ireland and then passed the payments onwards to Bermuda via a Dutch conduit.[106] In this strategy, the Dutch royalty conduit holds a sub-license and serves to avoid the standard Irish 20% withholding tax on royalties (Kleinbard, 2011). The rate to the Netherlands is 0% because of the EU Interest and Royalties Directive and the Netherlands does not impose a withholding tax on royalties. The Velcro Canada case illustrates that non-US firms can use similar strategies.[107] Velcro migrated its intellectual property to the Netherlands Antilles and also channelled royalties through a Dutch entity with a sub-license. The payments qualified for 0% withholding tax under the Canada-Netherlands tax treaty instead of the standard 25% rate.

Some foreign multinationals use different Dutch royalty companies that own intellectual property themselves. An example is SABMiller, which transferred trademarks of originally African beers from African subsidiaries to a Dutch SPE. From 1998 to 2005, SABMiller benefitted from a Dutch low-tax regime for royalty income (SOMO, 2008). After that, SABMiller apparently obtained a ruling from the Dutch tax authority[108] that allows a flexible amortisation of the trademark rights in excess of their

[106] J. Drucker, "Forest Laboratories' Globe-Trotting Profits", BloombergBusinessweek, 13 May 2010; J. Drucker, "The Tax Haven That's Saving Google Billions", BloombergBusinessweek, 21 Oct 2010.

[107] *Velcro Canada Inc. v. Her Majesty the Queen*, Tax court of Canada, case no. 2012 TCC 57.

[108] The accounts of the relevant Dutch SPE of SABMiller mention an *"agreement with the fiscal authority"*. SABMiller denied that it concluded an advance tax ruling or advance pricing agreement with the Dutch tax authority, but confirmed that the taxable income of the SPE *"is reduced by a tax amortisation allowance"*.

market value, almost exempting the royalty income. Royalty payments from South African and Ghanaian subsidiaries to the Dutch SPE amount to approximately €15 million and €0.3 million per year, respectively (Hearson & Brooks, 2010). Another example is Inter Ikea, a firm related to Ikea that is held by a foundation in Liechtenstein. A Dutch Inter Ikea subsidiary owns the Ikea trademark, receives license fees from Ikea stores, and pays fees to a Luxembourg affiliate.[109] In this case, the Dutch royalty company may effectively operate as a conduit even though it owns trademark rights itself.

Apart from royalty companies, the Netherlands hosts SPEs that provide other services within a multinational, including operational lease and re-invoicing (DNB, 2009a). However, no information was found on potential tax advantages of such SPE structures.

Finally, Dutch entities may facilitate tax avoidance through trade in goods, as the case of Finnish pulp and paper company Stora Enso illustrates. This is remarkable, because earlier studies did not find evidence of such strategies (IBFD, 2004; Muller et al., 2004). In the case of Stora Enso, a Dutch subsidiary buys pulp from a Brazilian joint venture at 'cost plus' prices and sells it onwards to a Finnish affiliate at market prices, which are considerably higher. Due to a tax ruling, apparently only a small trading margin is included in the tax base, even though the actual margin is much larger.[110] This results in double non-taxation of most of the company's trading profits.

## 5.3 Analysis of SPE types and tax strategies

### 5.3.1 Linking tax strategies to SPE types

The literature review provides a broad overview of tax strategies involving Dutch SPEs. This section uses those strategies to distinguish several types of SPEs on the basis of balance sheet data.[111] The resulting typology of SPEs allows to analyse the relative importance and characteristics of each type, which in turn provides further information about tax strategies.

The various strategies involving FDI diversion suggest two basic SPE types that can be easily identified. The first is an "intermediate holding". This SPE type includes joint ventures and is associated with avoidance of host country dividend withholding or capital gains tax and home country tax on foreign profits. An intermediate holding can also provide investment protection. On the basis of other studies, it can be expected that most SPEs are intermediate holdings (DNB, 2009b; Weyzig, in press). The second type

[109] A. Ward, "Wrappers come off Ikea structure", Financial Times, 27 Jan 2011; "IKEA: Flat-pack accounting," The Economist", 11 May 2006.

[110] L. Finér, M. Laine, and M. Ylönen, "Verosuunnittelu vauhdittaa Stora Enson sellusampoa [Tax planning boosts the pulp trade of Stora Enso]", Talouselämä [Economy], 8 Jun 2012.

[111] See Table 5.1 for the precise balance sheet criteria.

is an "intra-group loan conduit", which allows to avoid interest withholding tax. If a loan conduit channels interest payments onwards to a tax haven affiliate, the overall strategy may also involve avoidance of host country corporate income tax through income shifting, a more aggressive strategy. Apart from these two basic types, some firms may use a Dutch SPE to divert equity investments as well as intra-group loans. Therefore it makes sense to define a third SPE type, an "intra-group financing company", for FDI diversion other than simple intermediate holdings or loan conduits. Unfortunately, the balance sheet data used in this section do not allow to identify strategies involving hybrid financing, hybrid entities, or lowly taxed foreign branches.

Three more SPE types are associated with external funding strategies. The fourth SPE type is a "fund raising vehicle", which issues debt securities via the Netherlands to avoid withholding tax on the interest payments. The fifth SPE type, a "mixed financing company", covers all structures that combine FDI diversion with external funding and includes firms with a Dutch ultimate parent and SPEs with substantial unknown liabilities. The sixth and last SPE type is a "securitisation vehicle", which also issues debt securities but is off-balance and holds portfolio investments only. Although this thesis focuses on direct investment, it is useful to distinguish securitisation vehicles so they can be excluded from parts of the analysis.

Some SPE types or tax strategies cannot be identified using balance sheet data. These include trading strategies and SPEs that benefit from alternative tax bases specified in advance pricing agreements with the Dutch tax authority.

### 5.3.2 Data and processing[112]

The analysis of SPE types uses micro data on investment positions and transactions of Dutch SPEs (DNB, 2009c). By definition, Dutch SPEs hold mainly foreign financial assets or intellectual property and are mainly funded with foreign equity and liabilities. Most SPEs do not conduct real business activities (DNB, 2009b, 2010). The micro data are collected by the Dutch central bank (DNB) and cover approximately 90% of total SPE assets (DNB, 2009b). The analysis uses data for 2007.[113]

The data require some processing, for three reasons. First, some SPEs consist of a group of affiliated companies that report their positions and transactions separately. Often these companies form holding chains. To avoid double counting, consolidated SPE balance sheets are created by netting out Dutch intra-group equity and loan positions. Affiliated companies are identified using data on ultimate parents from the

[112] Access to the anonymised micro data used for this research was obtained from De Nederlandsche Bank in cooperation with Statistics Netherlands, subject to DNB's disclosure policies, see http://www.dnb.nl/en/statistics/statistische-microdata/index.jsp. The interpretation of the data is solely the responsibility of the author.

[113] For a more elaborate description of the SPE micro data, see Chapter 3.

Reach database of Bureau van Dijk.[114] Second, for SPEs that belong to a banking group, the data do not distinguish between intra-group loans and external bank loans. Examination of the data shows that these SPEs represent approximately 10% of total assets.[115] Because of the nature of SPE operations, it is assumed that all of these loans are intra-group. Third, some SPEs report assets well in excess of total liabilities plus equity. For these SPEs, an unknown liability is created that equals this difference.

The classification of SPEs requires a threshold for how closely assets and liabilities match the typical balance sheet of an SPE type. This threshold is set at 80%. Thus, an SPE classifies as an intermediate holding, for example, if at least 80% of its assets consist of equity participations in foreign subsidiaries and at least 80% of its liabilities and equity consist of equity participations by one or more foreign parent companies. The 80% threshold allows for some transitory items, derivatives, cash, provisions, financial positions with Dutch non-SPE affiliates, and minor statistical discrepancies. The data set for this study does not include all of those items. It is therefore not possible to distinguish derivatives positions from statistical discrepancies, for example, which limits the maximum threshold that produces useful results. A threshold of 80% accommodates the data limitations and still distinguishes reasonably well-defined types. For securitisation vehicles, an alternative liability criterion is used because of their off-balance character: the ultimate parent must be a foundation.

### 5.3.3 Results on SPE types

Table 5.1 lists all SPE types, associated tax and non-tax strategies, and corresponding balance sheet criteria. In addition, for each type, the table shows the number of SPEs and their total assets as of end-2007. The six SPE types account for approximately 80% of total SPE assets, which means that they represent the most common investment structures.

Both in number of SPEs and in total assets, the main type is an intra-group financing company and not a plain intermediate holding. This indicates that many SPEs combine holding activities with other intra-group financing arrangements, such as long-term onlending or taking deposits and providing short-term loans within the group. Plain intermediate holdings constitute the second-largest type. Plain intra-group loan conduits form a much smaller category. Together, these three FDI diversion types account for approximately 40% of SPEs and almost 60% of total SPE assets.

Mixed financing companies represent the largest SPE type with external funding. Considering that this is a rather broad type, its 13% share in total assets is relatively modest and confirms that most SPEs have a more specific capital structure. Separate fund raising vehicles form a somewhat smaller category with 8% of total assets. The

[114] This is a commercial database that integrates data from national company registers. Ultimate parents are defined as companies that own an SPE through shareholdings of more than 50% at each step in the ownership chain and that are not known to be majority owned by another company.

[115] Excluding off-balance securitisation vehicles.

**Table 5.1** SPE types and associated tax strategies

| SPE type | Strategies | Balance sheet criteria | SPEs | Share of SPEs | Total assets (€ bn) | Share of total assets |
|---|---|---|---|---|---|---|
| Intermediate holding | ▪ Avoidance of WHT on intra-group dividends<br>▪ avoidance of capital gains tax<br>▪ avoidance of home country tax on foreign dividend income<br>▪ investment protection | ▪ >80% of liabilities are participations by foreign parents<br>▪ >80% of assets are participations in foreign subsidiaries | 104 | 15% | 403 | 19% |
| Intra-group loan conduit | ▪ Avoidance of WHT on intra-group interest<br>▪ avoidance of host country corporate tax | ▪ >80% of liabilities are loans from foreign affiliates<br>▪ >80% of assets are loans to foreign affiliates | 22 | 3% | 166 | 8% |
| Intra-group financing company | ▪ Combinations of the above | ▪ >80% of liabilities are intra-group<br>▪ >80% of assets are intra-group<br>▪ other than types 1-2 (mainly combinations of type 1 and 2) | 145 | 22% | 647 | 31% |
| Fund raising vehicle | ▪ Avoidance of WHT on interest to external creditors | ▪ >80% of liabilities are debt securities<br>▪ >80% of assets are loans to foreign affiliates | 47 | 7% | 177 | 8% |
| Mixed financing company | ▪ Combinations of the above | ▪ Any mix of liabilities<br>▪ >80% of assets are intra-group<br>▪ other than types 1-4 (mainly combinations of type 4 and type 1, 2 or 3) | 67 | 10% | 275 | 13% |
| Securitisation vehicle | | ▪ Foundation as ultimate parent<br>▪ >80% of assets are non-FDI | 91 | 14% | 41 | 2% |
| Other | | ▪ All remaining SPEs | 193 | 29% | 411 | 19% |
| All types | | | 669 | 100% | 2,120 | 100% |

Note: Data at 31 December 2007. Source: DNB (2009c), author's calculations.

sixth type, securitisation vehicles, accounts for a very small fraction of total assets only. This may be an underestimate, because securitisation vehicles are probably underrepresented in the monthly reporting population of large SPEs due to their relatively small size. However, other data confirm that the vast majority of Dutch SPE structures are on-balance and not specifically related to financial sector strategies.[116]

The remaining SPEs, representing approximately 20% of total assets, do not fit into the six categories defined above and hold more than 20% non-FDI assets. These SPEs probably include treasury companies of foreign multinationals that hold large liquidity reserves, as well as leasing and re-invoicing SPEs. They may also include SPEs that directly hold foreign real estate, which is not included in the FDI data.[117]

### 5.3.4 Results on characteristics of SPE types

The typology of SPEs allows to analyse further characteristics of each type. Table 5.2 shows several characteristics that are relevant from a tax perspective.

First, the table shows average SPE assets. For each of the first five types, average SPE assets in the reporting population are €4 billion or more and the largest observations have assets above €10 billion. This indicates that the overall pattern of SPE investments is largely determined by a few hundred very large multinationals that hold or finance a substantial part of their overall operations via the Netherlands.[118]

Second, Table 5.2 displays the number of origin countries, from which the funding of the SPE originates, and destination countries, to which the SPE has passed on these funds. Intra-group financing and mixed financing companies have many origin and destination countries. Thus, these SPEs act as central financing hubs within a large multinational, engaging in a variety of financing arrangements with many affiliates. Intermediate holdings also have a relatively large number of destination countries, but a small number of origin countries. This suggests that intermediate holdings act as distributors of equity capital within a multinational. By contrast, plain intra-group loan conduits and fund raising vehicles do not have a distributive role and lend onwards to a few affiliates only. For fund raising companies, the low number of origin countries is misleading, because the origin country of listed debt securities refers to the securities exchange. The securities are typically held by investors from many countries.

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[116] Macro data show that Dutch securitisation vehicles with mainly foreign assets had €110 billion of debt securities outstanding at end-2009. Source: DNB Statistics Table 9.1, http://statistics.dnb.nl/en/financial-institutions/other-financial-institutions/special-purpose-vehicles/index.jsp (accessed Dec 21, 2011).

[117] Probably the unclassified SPEs also include a few securitisation vehicles for which data on the ultimate parent were missing and SPEs consisting of affiliated companies with intra-group positions that were not netted out due to differences in valuation.

[118] Excluding securitisation vehicles, on average, SPE assets are equal to approximately 20% of the consolidated balance sheet total of the corresponding multinational. This is a rough estimate, though, because for some multinationals financial data were unavailable and the valuation of an SPE's participations in subsidiaries often differs from the net asset value of these subsidiaries.

**Table 5.2** Characteristics of SPE types

| SPE type | SPE assets (€ bn) | Number of origin countries | Number of destination countries | Share of SPE liabilities in treaty countries | Share of SPE assets in treaty countries | Share of SPE liabilities in tax havens[a)] | Share of SPE assets in tax havens[a)] |
|---|---|---|---|---|---|---|---|
| Intermediate holding | 3.9 | 3.9 | 11.7 | 98% | 93% | 15% | 22% |
| | (13.0) | (3.2) | (13.7) | (10%) | (22%) | (32%) | (33%) |
| Intra-group loan conduit | 7.5 | 4.2 | 5.9 | 75% | 92% | 36% | 26% |
| | (30.8) | (2.3) | (5.0) | (40%) | (16%) | (44%) | (39%) |
| Intra-group financing company | 4.5 | 8.2 | 15.6 | 89% | 95% | 30% | 15% |
| | (14.3) | (11.8) | (15.7) | (26%) | (13%) | (39%) | (26%) |
| Fund raising vehicle | 3.8 | 3.5 | 3.8 | 99% | 98% | 41% | 11% |
| | (7.3) | (1.9) | (3.1) | (4%) | (14%) | (45%) | (29%) |
| Mixed financing company | 4.1 | 9.7 | 15.8 | 93% | 97% | 21% | 15% |
| | (7.2) | (9.5) | (13.2) | (19%) | (7) | (27%) | (24%) |
| Securitisation vehicle | 0.5 | 2.3 | 8.1 | 100% | 98% | 71% | 3% |
| | (0.7) | (1.3) | (5.4) | (1%) | (13%) | (45%) | (4%) |
| Other | 2.1 | 6.2 | 9.5 | 95% | 95% | 24% | 10% |
| | (5.6) | (8.9) | (12.1) | (17%) | (14%) | (36%) | (21%) |
| All types | 3.2 | 5.8 | 11.2 | 94% | 96% | 31% | 14% |
| | (11.0) | (8.4) | (12.7) | (19%) | (15%) | (41%) | (26%) |

Source: DNB (2009c), author's calculations. Notes: SPE investment positions at 31 December 2007, unweighted averages, standard deviation in brackets; [a)] Bermuda, Cayman Islands, British Virgin Islands, Jersey, Guernsey, Aruba, Curacao, Puerto Rico, Switzerland, Luxembourg, Ireland, and Belgium.

Third, the table shows the share of Dutch SPE liabilities and assets in countries that have a tax treaty with the Netherlands. On the liability side, virtually all intermediate holdings have direct parents in treaty countries. This confirms that withholding tax reductions or other treaty benefits are essential for holding chains. By contrast, intra-group loan conduits are, on average, financed for only 75% from treaty countries. Considering that the Netherlands has tax treaties with all major economies, this figure is remarkable low. It shows that the absence of Dutch interest withholding tax renders a tax treaty irrelevant for loans to Dutch SPEs. The share for intra-group financing companies is somewhere in between, which is consistent with their financing mix of equity and intra-group debt. On the asset side, tax treaty benefits are of key importance for all SPE types.

Fourth, Table 5.2 shows the proportion of SPE liabilities and assets in twelve large tax havens. On average, intra-group loan conduits have a much higher share of tax haven liabilities than intermediate holdings. This suggests that some loan conduits facilitate

income shifting to tax havens through interest payments. Again, intra-group financing companies are in between holdings and loan conduits. Fund raising vehicles and securitisation vehicles have a high share of tax haven liabilities due to debt securities issued in Luxembourg and Switzerland.

Although the largest SPE types are associated with a broad range of tax strategies, the analysis of SPE characteristics shows that tax treaty benefits in the host country are relatively important. More specifically, differences between intermediate holdings and intra-group loan conduits suggest that withholding tax avoidance is a key purpose of Dutch SPEs. Intra-group loan conduits may also facilitate avoidance of host country corporate income tax via income shifting to low-tax regimes.

## 5.4 Analysis of total SPE positions and income flows

### 5.4.1 Relation to the analysis of SPE types

The previous section showed that many SPEs are financing companies with more than one main type of assets or liabilities. Therefore the analysis of SPE types provides limited information on the size of specific investment structures. This section uses aggregate data on SPE asset-liability combinations and income flows to analyse financing structures and tax strategies regardless of how they are combined within SPEs. It includes an analysis of royalty strategies, which are only reflected in income flows and not in financing structures.

### 5.4.2 Data and processing

An asset-liability matrix is generated for each SPE by attributing asset categories to liability categories. See Annex 5.1 for an example. Next, all matrices are added up to a total matrix for all SPEs combined. The construction of asset-liability matrices largely follows the methodology described for origin-destination matrices in Annex 7 to the OECD Benchmark Definition on FDI (OECD, 2008b). However, it uses different attribution rules. For origin-destination matrices, by default all assets (destinations) are attributed proportionally to all liabilities (origins). For asset-liability matrices, it is more appropriate to first attribute equity assets to own equity, to the extent possible, and loan assets to debts. This reflects SPE operations more accurately.

In addition, annual income flow matrices are constructed, using the same attribution rules for dividend and interest flows as for equity and debt positions. Note that inflows may differ from outflows, for instance because of timing differences and because SPEs may retain income received from foreign affiliates. In principle, SPEs may also use income flows to finance new equity investments or loans. However, exploratory data analysis indicates that capital outflows are usually financed with matching capital inflows during the same year. A separate matrix is constructed for royalty payments on

the basis of data from approximately 20 SPEs that reported royalty income. All dividends, interest and royalties are gross amounts before withholding taxes.

### 5.4.3 Results on total SPE positions

Table 5.3 shows an aggregate asset-liability matrix as of 30 June 2007.[119] Because the table focuses on the financing of direct investments, it does not include the securitisation vehicles identified above or portfolio investments, derivatives, and real estate.[120] The Dutch assets include positions between different SPE affiliates of the same firm that were not fully netted out due to data limitations. This asset category also includes positions with domestic affiliates that conduct active businesses and loans to third parties, such as customers or suppliers. On the liability side, Dutch equity mainly consists of SPE holding chains that were not fully netted out and orphan structures like Ikea, but it also includes publicly traded shares issued by Dutch ultimate parents. Unknown liabilities capture the difference between total assets and total reported liabilities plus equity. To the extent that this reflects a difference in valuation, unknown liabilities may be interpreted as a revaluation reserve.

The matrix shows that at the aggregate level, three asset-liability combinations stand out. First, over €700 billion or approximately 40% of SPE assets and liabilities consists of holding chains. These are clearly the main element of Dutch SPE structures. Due to data limitations, the matrix also includes some intermediate holding positions in Dutch assets financed with equity participations and in foreign subsidiaries financed with Dutch equity or with unknown liabilities. The true share of holding chains may be close to 50% of SPE balance sheets. Second, SPEs onlend more than €250 billion raised in debt markets within the group. These fund raising structures account for approximately 15% of SPE assets and liabilities. Third, loans to and from foreign affiliates account for over €150 billion or approximately 10% of SPE balance sheets. These include narrow intra-group loan conduits as well as broader internal banking activities of intra-group financing and mixed financing companies. Together, these three asset-liability combinations account for 65-75% of SPE balance sheets.

The table also shows conversions between debt and equity. Intra-group loans financed by equity participations and vice versa together account for €150 billion or 10% of SPE balance sheets. From a tax perspective, the rationale behind these conversions is not straightforward. In theory, some SPEs can minimise withholding taxes by receiving dividends and paying interest (Merks, 2011). However, this may not yield a tax advantage unless the SPE can offset the interest expenses against taxable

[119] The tables in this second empirical section are shown for a different date than Table 5.1 and Table 5.2, to avoid potential data confidentiality issues that might result from the combination of data in various tables.

[120] Data on these asset categories were not included in the data set. Macro data show that SPEs excluding securitisation vehicles held total portfolio investments of €37 bn and derivatives with market value of €60 bn at end-2010. Source: DNB Statistics Tables 12.10, 12.4 and 9.1, http://statistics.dnb.nl/en/home/index.jsp (accessed Sept 19, 2011).

**Table 5.3** Aggregate SPE asset-liability matrix (€ bn)

| | | Liabilities | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Partici-pations by foreign parents | Loans from foreign affiliates | Debt securi-ties | Loans from third parties | Dutch equity | Un-known | Total |
| Assets | Participations in foreign subsidiaries | 709 | 87 | 5 | 42 | 61 | 75 | 979 |
| | Loans to foreign affiliates | 71 | 154 | 258 | 57 | 5 | 10 | 554 |
| | Loans to third parties and Dutch assets | 48 | 83 | 29 | 24 | 6 | 18 | 208 |
| | Total | 827 | 324 | 291 | 123 | 71 | 103 | 1,739 |

Source: DNB (2009c), author's calculations. Notes: SPE investment positions at 30 June 2007, excluding securitisation vehicles.

income, for example from domestic businesses. Conversely, an SPE that receives net interest income may not generate a tax advantage unless it can offset the income against tax-deductible expenses.

On the basis of the asset-liability matrix, it can be concluded that the main tax strategies of SPEs are those associated with holding chains, issuance of debt securities, and intra-group onlending. The next part analyses those strategies in more detail using data on income flows.

### 5.4.4 Results on total income flows

Income flow data allow to compare the volume of different types of SPE income and to distinguish conduit flows associated with avoidance of withholding tax from other strategies. Table 5.4 shows the origins and uses of foreign dividend income of Dutch SPEs in 2007. The rows split the origins into three broad country groups, so the tax consequences for different types of countries can be assessed separately.[121] The first group consists of 42 developing and emerging economies that had a tax treaty with the Netherlands in 2007. The second group consists of all EU-27 countries except Luxembourg, Belgium, Ireland, and the Netherlands itself, plus 17 other high income

[121] Confidentiality requirements limit the number of country groups that can be shown separately in Table 5.4, Table 5.5, and Table 5.6. Therefore a further breakdown, for example distinguishing between low and middle income countries, is unfortunately not possible.

**Table 5.4** Dividend flows of Dutch SPEs (€ bn)

| Source of payment to Dutch SPEs | Dividend paid to Dutch SPEs | Of which: | | | Dividend pass-through ratio |
|---|---|---|---|---|---|
| | | Paid onwards as dividends to foreign parents | Paid onwards as dividends to external shareholders or as interest | Retained or reinvested | |
| Low and middle income countries with Dutch tax treaty | 5.5 | 2.9 | 0.1 | 2.4 | 53% |
| High income countries with Dutch tax treaty and EU | 38.2 | 14.1 | 1.3 | 22.8 | 37% |
| Tax havens and countries without Dutch tax treaty | 27.2 | 14.2 | 0.9 | 12.1 | 52% |
| Total | 70.9 | 31.2 | 2.3 | 37.3 | 44% |

Source: DNB (2009c), author's calculations. Note: Income data for calendar year 2007, excluding securitisation vehicles.

countries that have a tax treaty with the Netherlands. The third group includes the tax havens Luxembourg, Belgium, Ireland, Switzerland, Curacao, Aruba and all countries that did not have a tax treaty with the Netherlands in 2007. The columns show total dividends paid to Dutch SPEs and the amounts of dividend income channelled onwards to foreign parents, used to pay other funding providers, and retained by the SPEs.

In 2007, 468 SPEs in the data set had foreign subsidiaries; other SPEs held intra-group loans and non-FDI assets only. Only 108 out of these 468 SPEs received dividends from foreign subsidiaries in 2007. Together, their gross dividend income was more than €70 billion. This corresponds to an average dividend yield of approximately 11% on their foreign participations. Overall, the SPEs distributed 44% (€31.2 bn out of €70.9 bn) onwards to foreign parents and retained most of the remaining dividend income. They used only a small part for payments to other funding providers, mainly interest on bank loans. Probably most of the €17 billion of dividends from the first two country groups that were distributed onwards are associated with conduit structures to avoid dividend withholding tax. The two country groups are affected more or less proportionally to total inward FDI stocks via Dutch SPEs. The €25 billion of retained dividend income from these country groups could be related to avoidance of home country tax, which according to data on ultimate parents mainly affects high income countries. The largest part of dividend income form tax havens ultimately originates from other countries. The flows from tax havens indicate that Dutch intermediate holdings also play a substantial role in more complex tax strategies involving SPEs in several countries.

**Table 5.5** Interest flows of Dutch SPEs (€ bn)

| Source of payment to Dutch SPEs | Intra-group interest paid to Dutch SPEs | Of which paid onwards as interest: | | | | Interest pass-through ratio |
|---|---|---|---|---|---|---|
| | | To tax haven affiliates | To other affiliates | To debt security holders | To third parties | |
| Low and middle income countries with Dutch tax treaty | 1.1 | 0.2 | 0.2 | 0.4 | 0.1 | 91% |
| High income countries with Dutch tax treaty and EU | 19.1 | 1.3 | 4.0 | 9.0 | 1.9 | 85% |
| Tax havens and countries without Dutch tax treaty | 6.5 | 2.6 | 0.7 | 1.6 | 1.3 | 94% |
| Total | 26.7 | 4.1 | 4.8 | 11.1 | 3.3 | 87% |

Source: DNB (2009c), author's calculations. Note: Income data for calendar year 2007, excluding securitisation vehicles; tax havens as in Table 5.2.

Table 5.5 shows the origins of SPE interest income from foreign affiliates and the use of this income. The total interest income of almost €27 billion implies an average interest rate of roughly 5% on the total loans to foreign affiliates, which were approximately €550 billion. Strikingly, 87% of gross interest payments are passed on to creditors of the SPE. Taking into account that some SPEs receive interest net of (reduced) withholding taxes or incur expenses for credit guarantees and hedging of currency mismatches, the profit margin of SPEs on these structures is probably close to zero.

A large part of the interest is passed on to debt security holders.[122] Thus, avoidance of withholding tax on portfolio interest is the main debt-related tax strategy. Interest payments passed on within the group are also substantial. However, interest flows from normal economies to tax havens are limited; they amount to €0.2 billion from low and middle income countries and €1.3 billion from high income countries. Thus, Dutch SPEs potentially facilitate avoidance of host country corporate income tax through interest payments to tax havens, but only on a small scale.

Next, Table 5.6 shows similar data for royalty payments. Gross royalty payments to Dutch SPEs were approximately €7 billion, which is several times lower than dividend or interest income. However, royalty payments to SPEs often form part of more aggressive tax strategies, because they are usually tax deductible in the source country and relatively easy to manipulate. It is quite plausible that the €7 billion in royalty payments reduce tax revenues in source countries by more than €1 billion, without

[122] Probably the €0.4 billion of interest from developing countries paid onwards to debt security holders, shown in Table 5.5, is an underestimate. The micro data on debt issued via Dutch SPEs in Table 5.9 indicate that in 2010, these flows were approximately €1 billion.

**Table 5.6** Royalty flows of Dutch SPEs (€ bn)

| Source of payment to Dutch SPEs | Royalties paid to Dutch SPEs | Of which paid onwards as royalties: | | Royalties pass-through ratio |
|---|---|---|---|---|
| | | To tax havens | To other countries | |
| Low and middle income countries with Dutch tax treaty | 0.4 | 0.0 | 0.1 | 25% |
| High income countries with Dutch tax treaty and EU | 3.2 | 0.1 | 1.0 | 33% |
| Tax havens and countries without Dutch tax treaty | 3.3 | 1.8 | 1.0 | 85% |
| Total | 6.9 | 1.9 | 2.1 | 61% |

Source: DNB (2009c), author's calculations. Note: Income data for calendar year 2007, excluding securitisation vehicles; tax havens as in Table 5.2 except for Belgium, which is regarded as a normal EU country in relation to royalty flows.

generating material tax revenues elsewhere.[123] Only a small share of the royalties from normal economies are passed onwards. This may reflect onwards payments in a different form, as in the case of Inter Ikea, or the use of special amortisation schemes, as in the case of SABMiller. By contrast, royalties from tax haven countries are mostly passed onwards to other tax havens. This reflects the use of Dutch royalty conduits in combination with technology transfer to Irish affiliates, as in the case of Google.

It can be concluded that holding chains, issuance of debt securities, and intra-group onlending are the largest elements of SPE balance sheets. For interest payments, Dutch SPEs mainly act as conduits to avoid host country withholding taxes. For dividends and royalty payments, Dutch SPEs have more diverse uses and act only partly as conduits.

## 5.5 Analysis at country and company level

### 5.5.1 Relation to total SPE positions and income flows

Whereas aggregate SPE micro data provide valuable information about the overall size of various tax strategies, these data are not very useful to assess potential consequences for specific countries. The reason is that tax avoidance affects different countries in a highly uneven way and confidentiality requirements restrict the use of central bank micro data to analyse individual countries. This section uses other data sources to identify which countries are potentially most affected by various tax strategies. It

[123] Assuming that most royalty payments to Dutch SPEs from part of tax avoidance schemes, that missed tax revenues net of (reduced) withholding taxes amount to at least 20% of payments, and that royalty income remains largely untaxed because of special amortisation schemes or offsetting payments by Dutch SPEs to tax haven affiliates.

analyses FDI diversion, issuance of debt securities, and royalty schemes. The analysis pays special attention to host countries with a large proportion of inward FDI diverted via Dutch SPEs and to home countries with a large amount of debt securities issued via Dutch SPEs.

### 5.5.2 Data and processing

For FDI diversion, the analysis combines macro from the IMF and the OECD. The IMF Coordinated Direct Investment Survey (CDIS) data (IMF, 2012a) include SPE positions for all countries. By contrast, the FDI statistics of the OECD (OECD, 2012b) exclude SPE positions for countries that collect separate SPE data, such as the Netherlands. Therefore the difference between Dutch outward FDI in the IMF CDIS and in OECD statistics is equal to Dutch SPE investments (excluding loans to parents).[124] OECD statistics do not split FDI into a debt and equity component. Therefore the share of debt in SPE positions cannot be calculated precisely.

For selected low and middle income countries, large investments of individual SPEs were examined using company filings from the Dutch chamber of commerce. This provides information on the home country, industrial sector, capital structure, and starting date of SPE investments in a specific country. The SPE investments were identified by checking all Dutch legal entities with assets over €5 billion, companies with assets over €0.5 billion administrated by external service providers, companies with a certain country in their name (e.g. "Thani Ghana Tano B.V."), companies with a MIGA guarantee or IFC loan, UNCTAD country profiles for Least Developed Countries, and reports of national investment promotion agencies.[125] This method works best for host countries with a few very large SPE investments, such as Angola and Ghana. For other countries, for example El Salvador and Indonesia, the firms listed in the table mainly illustrate the sectors of investment.

For the issuance of debt securities, the analysis also uses IMF CDIS data. Dutch SPEs lend a large proportion of external debt funding to their foreign parents. The CDIS provide separate data on such reverse loans, which provide a proxy for debt issued via Dutch SPEs by home country. However, the CDIS outward reverse loans reported by the Netherlands are often inconsistent with inward reverse loans reported by the partner country. For relevant countries, CDIS data are therefore complemented with more reliable micro data from individual SPEs. In addition to the methods mentioned above, these SPEs are identified using data from security exchanges, rating agencies, debt market investment funds, and the Netherlands Authority for the Financial Markets

[124] The Dutch central bank is the underlying Dutch source for both databases. For many countries, the Dutch central bank also publishes FDI positions including and excluding SPEs on its own website, see http://www.statistics.dnb.nl/en/balance-of-payents-and-international-investment-positions/index.jsp (accessed Oct 1, 2012).

[125] It is possible that the results include Dutch companies with mainly foreign assets and liabilities that are not identified as SPEs by the central bank.

(AFM). Nearly all SPEs with outstanding debt securities can be identified, because debt securities are issued by a small number of SPEs, usually in amounts of at least €200 million, and public information is often available. Debt securities issued via Dutch SPEs are compared to foreign private debt securities issued directly from the home country as reported by the Bank on International Settlements (BIS, 2012).

For royalty schemes, no useful macro data are available. Therefore the analysis uses accounts from individual entities only. Some large Dutch royalty companies have been exposed in the media; checking foreign-owned entities with specific business activity codes identified a few others. This method allows to describe nearly half of the royalty flows to Dutch SPEs.

### 5.5.3 FDI diversion

Table 5.7 describes diverted FDI in selected host countries. These countries have a relatively large share of inward FDI stock that is directly held by Dutch SPEs, at least 10% for low and middle income countries and 20% for high income and EU countries. The table also includes Mongolia and Gabon, for which macro data on SPE investments are not available[126] but some major investments of individual SPEs were identified, and Croatia, which has an unusual composition of diverted FDI. Table 5.8 lists examples of investments via Dutch SPEs in some developing countries.

The countries with the largest shares of inward FDI via Dutch SPEs include low and middle income countries (e.g. Angola, Kazakhstan), EU countries (e.g. UK, Italy), and tax havens (e.g. Ireland, Switzerland). The SPE investments in tax havens involve underlying assets in other host countries. Remarkably, there are no major emerging economies or (non-haven) high income countries outside the EU with inward FDI shares above 20%. Those countries have more administrative capacity and a stronger position in tax treaty negotiations (Baistrocchi, 2008); some also have relatively strong domestic anti-avoidance legislation. Smaller developing countries and EU countries are probably more vulnerable, the former because they have weaker tax systems and the latter because the EU has an integrated economy without harmonised external withholding taxes or anti-avoidance rules.

For most host countries, less than half of diverted FDI consists of intra-group debt. Croatia is an exception, probably because FDI diversion generates a large withholding tax benefit for interest payments, reducing the rate from 15% to zero, but not for dividends, which are always free from withholding tax in Croatia.

The table includes various developing countries that have no tax or investment treaty with the Netherlands. For example, Angola hosts large investments via Dutch SPEs that

[126] For some countries, macro data on SPE investments are available for 2009 only and less reliable. Kazakhstan and Mauritania are nonetheless included in the table because individual company accounts confirm that investments via Dutch SPEs are relatively large. Examples of other countries with relatively large Dutch SPE positions according to 2009 data are Eritrea, Ethiopia, Liberia, Bermuda, Curacao, and Malta.

do not enjoy any treaty benefits. These are investments in the oil and gas sector. The relatively high SPE investments in Mauritania and Gabon, two other countries without Dutch treaties, are also mainly from extractive industries. Moreover, some oil companies started to invest in Kazakhstan via Dutch SPEs before the country signed tax and BITs with the Netherlands (e.g. Eni, Chevron, Parker Drilling). Together, this suggests that the Dutch route offers specific unilateral benefits to extractive industries. Anecdotal evidence indicates that a key factor might be the exemption of dividend income from subsidiaries, or profits of foreign branches, operating under a production-sharing contract. SPE investments in Kenya, El Salvador and Uruguay might be driven by investment protection rather than tax advantages. The same applies to SPE investments in South Africa, Turkey, Egypt and Brazil, because Dutch tax treaties do not lower the withholding taxes applied by these countries. For developing countries that do not have a tax treaty with the Netherlands, Dutch tax law provides unilateral relief for double taxation and this may also play a role.

For Mongolia, by contrast, tax treaties are probably the main factor. Ivanhoe Mines inserted a Dutch intermediate holding to benefit from the Netherlands-Mongolia tax treaty, for instance, as described in the literature review. This treaty offers large benefits because it completely eliminates dividend withholding tax, which is uncommon for tax treaties with developing countries. Other Mongolian tax treaties specify non-zero rates, except those with Luxembourg, Singapore and the United Arab Emirates. In 2012, the Mongolian government concluded that such treaties granted excessive benefits to foreign investors and it tried to renegotiate with the Netherlands and Luxembourg. The Mongolian operations of Ivanhoe did not pay dividends yet in 2010.

For Ghana, tax treaties are probably a key factor as well. Two major investments via SPEs stand out. The first is Modec's financial lease of an oil rig off Ghana's coast, which had a value of €600 million. This investment constitutes a permanent establishment of Modec's Dutch SPE, which is mainly financed with external debt. The SPE structure allows Modec to avoid Ghanaian or Japanese withholding tax on interest to foreign creditors. In addition, the Ghana-Netherlands tax treaty eliminates the Ghanaian 10% withholding tax on profits distributed to a foreign head office. The second major investment is Vodafone's 70% stake in a Ghanaian telecommunications company, which it valued at €300 million in 2010. Vodafone owns this and other subsidiaries through a Dutch SPE that holds €19 billion of equity investments and is financed with a mix of equity and intra-group loans. The SPE structure allows Vodafone to benefit from the 5% withholding tax on dividends under the Ghana-Netherlands tax treaty, compared to 7.5% under the Ghana-UK treaty. Both Modec and Vodafone invested in Ghana five months after the Ghana-Netherlands tax treaty was signed and their Ghanaian operations did not distribute profits yet in 2010.

**Table 5.7** FDI diverted via Dutch SPEs (€ bn)

| Country | (1) Total inward FDI stock | (2) Inward FDI via Dutch SPEs | (2) / (1) | Share of debt in (2) | Tax treaty (year) | BIT (year) |
|---|---|---|---|---|---|---|
| Angola[a)] | 18.7 | 8.5 | 45% | 10% | - | - |
| Kazakhstan[b)] | 60.7 | 17.1 | 34% | 40-60% | 1996 | 2002 |
| Kenya[a)] | 1.7 | 0.6 | 33% | 0-15% | - | 1970 |
| Venezuela[a)] | 28.5 | 8.8 | 31% | 25-30% | 1991 | 1991 |
| Philippines | 16.0 | 4.3 | 27% | 30-45% | 1989 | 1985 |
| Mauritania[a), b)] | 1.6 | 0.4 | 24% | 0% | - | - |
| Ghana[a)] | 6.8 | 1.4 | 20% | 10-15% | 2008 | 1989 |
| Nigeria | 25.9 | 5.0 | 20% | .. | 1991 | 1992 |
| Uruguay[a)] | 11.1 | 1.9 | 17% | 0% | - | 1988 |
| Serbia | 12.8 | 2.2 | 17% | 15% | 1982 | 1989 |
| South Africa | 110.5 | 18.4 | 17% | 20-25% | 1971 | 1995 |
| Ukraine | 36.2 | 5.3 | 15% | 25-35% | 1995 | 1994 |
| El Salvador | 5.9 | 0.7 | 12% | 0-5% | - | 1999 |
| Turkey | 99.6 | 11.9 | 12% | 0-15% | 1986 | 1986 |
| Egypt[a)] | 54.7 | 6.2 | 11% | 0-5% | 1999 | 1996 |
| Brazil | 487.2 | 49.1 | 10% | 0-10% | 1990 | 1998 |
| Taiwan[a)] | 48.1 | 4.8 | 10% | 0-20% | 2001 | - |
| Indonesia | 115.4 | 11.4 | 10% | 30-40% | 1973 | 1994 |
| Mongolia[a)] | 3.4 | 0.2-0.5[d)] | 6-15% | 0%[d)] | 2002 | 1995 |
| Gabon[a)] | 1.1 | .. | .. | .. | - | - |
| United Kingdom | 800.6 | 310.8 | 39% | 10-40% | 1948 | - |
| Italy | 248.4 | 77.6 | 31% | 20-40% | 1957 | - |
| Spain | 430.4 | 117.5 | 27% | 35-50% | 1971 | - |
| Portugal | 82.5 | 19.1 | 23% | 35-45% | 1999 | - |
| Slovak Republic | 37.6 | 8.1 | 21% | 15-20% | 1974 | 1991 |
| Romania | 51.4 | 10.8 | 21% | 25-35% | 1979 | 1994 |
| Croatia | 25.6 | 2.9 | 11% | 70-75% | 1982 | 1998 |
| Ireland | 184.9 | 80.0 | 43% | 35-50% | 1969 | - |
| Switzerland | 416.6 | 108.9 | 26% | .. | 1951 | - |
| Other countries[c)] | ~11,700 | 1,083 | 9% | .. | | |
| All countries[c)] | ~15,100 | 1,976 | 13% | .. | | |

Sources: IMF (2012), OECD (2012a), individual company data, author's calculations. Notes: FDI stocks at 31 December 2010; [a)] total inward FDI stock from UNCTAD instead; [b)] (share of) inward FDI via Dutch SPEs at 31 Dec 2009 instead; [c)] excluding the Netherlands, based on IMF CDIS outward investments data of 56 investor countries; [d)] author's estimates based on Mongolian Ministry of Economic Development (2012) and individual company data.

**Table 5.8** Examples of investments via Dutch SPEs in selected countries

| Country | Firms (home country code in brackets) |
|---|---|
| Angola | Tullow Oil (UK), Eni (IT), BP (UK), ExxonMobil (US), Repsol (ES), Brunei Energy (AE), Chevron (US), Petrobras (BR) |
| Kazakhstan | Central Asia Metals (UK), Vitol (LU via CH), GDF Suez (FR), Chevron (US), Petrofac (UK), Saipem (IT), Eni (IT), Bateman (NL), Parker Drilling (US), Heidelberg Cement (DE), Mubadala Development Company (AE), ShalkiyaZinc (NL) |
| Kenya | Vodafone (UK), Bharti Airtel (IN), Africa Oil (CA), Tullow Oil (UK) |
| Philippines | Gold Fields (ZA), Anglo American (UK), Premier Oil (UK), ExxonMobil (US), Pfizer (US), Total (FR), First Pacific (HK via CW), Ericsson (SE), Alstom (FR), Nomura (JP), Western Digital (US via SG), Brenntag (DE), Hewlett Packard (US), Alcatel-Lucent (FR), Xerox (US via UK), STMicroelectronics (NL), Analog Devices (US), Hitachi (JP), Futura Group (IT), Molex (US), II-VI (US), Panasonic (JP), Qualfon (MX), Bosch (DE), Takata (JP), Teradata (US), VXI (US), WNS (JE), Vitalo Group (BE), UnitedHealth Group (US), Swedish Match (SE), Stream Global Services (US), ProV International (US) |
| Mauritania | Petronas (MY), Total (FR), Kuwait Foreign Petroleum Exploration (KW), GDF Suez (FR) |
| Ghana | Modec (JP), Vodafone (UK), Gold Fields (ZA), Thani Emirates Petroleum (AE), Bharti Airtel (IN) |
| Nigeria | Saipem (IT), BT (UK), Bharti Airtel (IN), Petrobras (BR), Panoro Energy (NO) |
| Ukraine | Archer Daniels Midland (US), Saipem (IT), System Capital Management (UA) |
| El Salvador | Brenntag (DE), Hewlett Packard (US), Alcatel-Lucent (FR), Trafigura (CH) |
| Turkey | Japan Tobacco (JP), Vodafone (UK), Alcatel-Lucent (FR), Ericsson (SE), Adidas (DE) |
| Egypt | Cepsa (ES), Alstom (FR), Saipem (IT), Adidas (DE), Eli Lilly (US), GDF Suez (FR), Vodafone (UK) |
| Indonesia | Kuwait Foreign Petroleum Exploration (KW), Lundin Petroleum (SE), General Electric (US), Saudi Telecom (SA), Alstom (FR), Nomura (JP), Saipem (IT), BP (UK), BT (UK), Sasando (SG), GDF Suez (FR), Holcim (CH) |
| Mongolia | Ivanhoe Mines (now Turquoise Hills Resources; CA), Trafigura (CH), Central Asia Metals (UK) |
| Gabon | Forest Oil (US), Panoro Energy (NO), Bharti Airtel (IN) |

Sources: individual company data, IFC, MIGA, UNCTAD, national investment promotion agencies, national company registers, and Reach database. Note: see page 206 for a list of country codes.

In the Philippines and Indonesia, SPE investments are more diversified and include manufacturing and business services. Dutch SPE loans to Indonesian affiliates benefit from substantial withholding tax reductions, especially if the loans have a maturity of more than two years, as the Indonesia-Netherlands treaty reduces the standard 20% rate to zero in that case. This explains why 30-40% of SPE investments consist of intra-group debt. Dutch SPE investments in the Philippines benefit from a 10% dividend withholding tax, whereas a rate of at least 15% applies to the home countries of many of the SPEs. In addition, several SPEs hold investments of US firms in special economic zones. These specific structures preserve the benefits of the applicable tax holiday or

special 5% tax regime when profits are distributed (Chalk, 2005) and do not negatively affect tax revenues in the Philippines.

It can be concluded that some countries with relatively large investments via Dutch SPE are vulnerable to avoidance of withholding tax. These include Croatia and Indonesia, for withholding tax on interest, and the Philippines, Mongolia and Ghana, for withholding tax on dividends.

### 5.5.4 Issuance of debt securities

Table 5.9 describes debt issuance via Dutch SPEs by firms from selected home countries. The first two columns show Dutch reverse loans, which are a macro data proxy for debt funding via SPEs, and outstanding debt securities issued by individual SPEs, calculated from micro data. The micro data are generally more informative, except for Germany, because of the large number of issuers.[127] The data show that most Dutch SPE debt is issued by firms from six countries: Germany, Spain, Portugal, Indonesia, Kazakhstan and Japan. Firms from other home countries issued debt via the Netherlands in smaller quantities. These include firms from Nigeria, Venezuela, Hungary, Poland, Greece, Ireland, France, the US, and Saudi Arabia.

The third column shows outstanding international corporate debt securities not issued through foreign SPEs. Firms from the first five countries in the table issued more corporate debt via Dutch SPEs than via domestic entities. The Dutch SPEs mostly lend the debt funding onwards to their parents or to other affiliates in the home country. The Indonesian firms Persero and Listrindo do this in two steps. First, the Dutch issuing entity invests the issuance proceeds as equity into a Dutch subsidiary. Second, this Dutch subsidiary onlends the funds to the ultimate parent in Indonesia. These structures may provide a legal defence against anti-avoidance measures. The SPEs of Japanese firms are an exception and lend mainly to affiliates outside Japan. Some SPEs, such as those of Energías de Portugal and Iberdrola, obtain external funding from banks as well as from debt markets. The SPEs of Unión Fenosa and Endesa also serve as conduits for interest on securities issued via US affiliates (not included in the figures).

Most Dutch fund raising vehicles facilitate avoidance of withholding taxes on interest payments to debt security holders. For Indonesian firms, withholding taxes on interest paid directly to foreign creditors typically range from 10% to 20%, depending on the country. Interest paid via a Dutch SPE is free of withholding tax, provided the loan has a maturity of more than two years. For Spanish and Portuguese firms, withholding taxes are zero on interest payments via Dutch SPEs instead of up to 20% on direct payments to external creditors. Note that various large Spanish firms also issue

[127] Reverse loans to German parents as reported by the Dutch central bank also seem reliable because (unlike other countries) they match closely with the data reported by Germany. For Portugal, the apparent discrepancy between macro and micro data is partly explained by the Dutch SPE of Portugal Telecom, which holds intra-group convertible bonds and commercial paper instead of intra-group loans. For Japan, it is largely explained by Dutch SPE loans to non-Japanese affiliates.

**Table 5.9** Debt securities issued via Dutch SPEs (€ bn)

| Country | (1) Dutch reverse loans | (2) Debt sec. via Dutch SPEs | (3) Intl. corp. bonds | (2)/ (2+3) | Inte-rest on (2) | Standard interest WHT on bonds | Interest WHT to Dutch affiliates | Firms |
|---|---|---|---|---|---|---|---|---|
| Indonesia | 3.4 | 7.8 | 2.4 | 76% | 0.6 | 20% | 0-10% | Persero, Asia Pulp & Paper, Berlian Laju Tanker, Listrindo, Indosat, Indika Energy, Gajah Tunggal, Global Mediacom, Bakrie Sumatera Plantations, Arpeni Pratama Ocean Line |
| Kazakhstan | 0.8 | 6.6 | 2.6 | 72% | 0.5 | 15% | 10% | KazMunaiGas, Kazakhstan Temir Zholy, Astana Finance, Intergas Central Asia/KazTransGas |
| Spain | 36.7 | 30.1 | 16.2 | 65% | 1.2 | 19% | 0% | Telefónica, Repsol, Endesa, Red Eléctrica de España, Iberdrola, Unión Fenosa, Abertis Infraestructuras, Ferrovial |
| Portugal | 1.5 | 14.0 | 10.7 | 57% | 0.6 | 20% | 0% | Energías de Portugal, Portugal Telecom, Carris |
| Germany | 102.5 | .. | 95.6 | 52%[c] | .. | 0-25% | 0% | Deutsche Bahn, BMW, Siemens, Volkswagen, Schaeffler, RWE, Heidelberg Cement, EnBW, Adidas, Deutsche Telekom, E.ON, Linde, Allianz, Elster, Celesio, Deutsche Post, Metro, Pfleiderer, Phoenix |
| Japan | 0.6 | 21.4[a] | 312[b] | 6% | 0.2 | 15% | 10% | Nomura, Toyota |
| Other countries | 30.3 | .. | 2,515 | 1%[c] | .. | | | |
| Total | 175.8 | .. | 2,683 | 6%[c] | .. | | | |

Sources: IMF (2012), BIS (2012), individual company data, author's calculations. Notes: Debt stock at 31 December 2010, annual interest assuming constant debt stock; [a] includes other borrowings of Nomura; [b] corporate (€40 bn) plus financial bonds instead, because Nomura is a financial company; [c] (1)/(1+3) instead.

debt via Luxembourg SPEs. For firms from Kazakhstan, the benefit is smaller because the withholding tax rate is reduced from a maximum of 15%, which applies only to countries that do not have a tax treaty with Kazakhstan, to 10%. However, Nigeria illustrates that even small withholding tax differences might give rise to avoidance structures. Nigeria's first ever private foreign debt issue, by the Guarantee Trust Bank in

2007, took place via a Dutch SPE, even though this structure reduced withholding tax merely from 10% to 7.5%.

For German firms, the reasons to use Dutch fund raising vehicles are less clear. Germany applies a withholding tax for convertible and profit-sharing bonds only and not for other corporate debt instruments. Some German firms use their Dutch SPEs specifically to issue convertible or profit-sharing bonds, but most firms use them to issue other debt securities as well.

The results show that specific home countries are vulnerable to withholding tax avoidance via Dutch debt issuing SPEs, due to idiosyncratic combinations of low bilateral interest withholding tax rates to affiliates in the Netherlands and higher rates to external creditors in other countries. In terms of avoided withholding taxes, the most affected countries are Spain, Portugal, and Indonesia. Probably Dutch fund raising vehicles helped to avoid more than €50 million of interest withholding tax in each of these countries in 2010.[128]

### 5.5.5 Royalty companies

Table 5.10 shows six foreign multinationals with large Dutch royalty companies. Google's SPE receives by far the largest royalty income, over €5.7 billion in 2010, and passes on nearly all of this to a group entity in Bermuda. Merck & Co and Forest

**Table 5.10** Dutch royalty SPEs (€ mln)

| Firm (home country code in brackets) | Royalty income | Source of royalties | Royalty expenses or fees | Destination of royalties or fees |
|---|---|---|---|---|
| Google (US) | 5,725 | Europe, Middle East and Africa, via Ireland | 5,716 | Bermuda |
| Inter IKEA (LI) | 988 | Global | 908[b)] | Luxembourg |
| Merck & Co (US) | 775 | Mainly Europe | 768 | Bermuda |
| Forest Laboratories[a)] (US) | .. | US, via Ireland | 708 | Bermuda |
| Schlumberger (CW) | 338 | Global | 531[c)] | .. |
| SABMiller[a)] (UK) | 78 | Mainly Africa and Europe | 5 | .. |

Source: individual company data, author's calculations. Notes: see page 206 for a list of country codes; Income data for fiscal years 2010; [a)] fiscal year ending 31 March 2011; [b)] exploitation costs; [c)] general expenses.

[128] Portugal: withholding tax difference of at least 10 %-point on €0.6 bn of interest payments. Indonesia: assuming an average difference of 10 %-point on €0.6 bn of interest, including €0.3 bn of interest from the state-owned energy company Persero; the difference is lower (5 %-point) for direct interest payments to security holders in Kuwait and United Arab Emirates. Spain: assuming an average difference of 5 %-point on €1.2 bn of interest payments; the difference is lower (0 %-point) for direct payments to Switzerland, Ireland, United Arab Emirates, the former Soviet Union and 5 smaller economies.

Laboratories use similar Dutch royalty conduits. The other three SPEs own intellectual property themselves. However, the SPEs of Inter IKEA and Schlumberger pay large license fees (or similar expenses) to foreign affiliates, so these SPEs still effectively operate as conduits. By contrast, SABMiller's SPE benefits from a low effective tax rate on its royalty income and pays only minor royalties or fees to other affiliates.

Four of the SPEs receive royalties directly from affiliates in Europe, Africa or other parts of the world. These SPEs probably facilitate avoidance of royalty withholding tax as well as host country corporate income tax. This affects all countries worldwide, although EU countries and countries with a Dutch tax treaty that reduces royalty withholding tax are again more vulnerable. In the schemes of Google and Forest Laboratories, Dutch tax treaties do not play a role.

Dutch royalty companies are growing quickly. Total services exports of Dutch SPEs, mostly consisting of licensing services, increased from €11 billion in 2007 to €21 billion in 2011.[129]

## 5.6 Conclusions and discussion

To summarise, the analysis provides the following answers to the three research questions. First, the main Dutch SPE types are financing companies, which provide equity and loans to foreign affiliates and sometimes attract external funding, and plain intermediate holdings. A key purpose of Dutch SPEs is to avoid various types of withholding taxes. Royalty companies and intra-group loan conduits also facilitate income shifting to low-tax regimes. SPEs of extractive industry firms partly facilitate other strategies, such as exemption of foreign income generated under a production-sharing contract.

Second, in 2007, almost 75% of SPE balance sheets consisted of holding chains, fund raising structures, and loans to and from foreign affiliates. The SPEs passed on €17 billion of dividends from countries with normal tax regimes to foreign parents, €11 billion of interest payments to debt security holders and €9 billion of interest payments within the group. They also received €7 billion of royalties, the largest income flow associated with income shifting. Thus, the main policy implications are related to avoidance of withholding taxes and income shifting through royalty payments.

Third, the most affected countries apply substantially lower withholding tax rates on payments to Dutch affiliates than on payments to affiliates or external creditors in many other countries, without effective anti-avoidance mechanisms. The Philippines, Mongolia, and Ghana are relatively vulnerable to avoidance of dividend withholding tax via holding structures. Croatia and Indonesia are relatively strongly affected by avoidance of withholding taxes on intra-group interest. Spain, Portugal, and Indonesia

[129] Source: DNB Statistics Tables 12.3 and 12.13, http://statistics.dnb.nl/en/balance-of-payents-and-international-investment-positions/index.jsp (accessed Nov 15, 2011).

are faced with substantial avoidance of withholding tax on portfolio interest via fund raising structures. Income shifting through royalty payments affects many countries worldwide.

Avoidance of withholding taxes has several consequences. It reduces host country tax revenues at a given level of investment. At the same time, it may increase the overall level of foreign investment, although this effect is usually small for FDI attracted by natural resources or domestic markets. More importantly, both avoidance of dividend and interest withholding taxes may increase debt financing relative to equity, the former because it facilitates repatriation of profits and the latter because it reduces borrowing costs. Finally, tax avoidance reduces market efficiency, because it allocates resources to unproductive uses and distorts competition between large firms that can engage in international tax arbitrage and medium-sized or smaller firms that cannot.

Countries faced with substantial withholding tax avoidance have two main policy options to improve economic outcomes. First, they can unilaterally reduce withholding taxes, for example to the lowest tax treaty rate. This would cause an immediate further loss of tax revenue, but it would stimulate investments of medium-sized enterprises and gradually enhance market efficiency. This option is most attractive for interest or dividend withholding taxes that are easily avoided via various routes. Second, countries can improve anti-avoidance measures or try to renegotiate the tax treaties with the lowest rates. This can increase tax revenues while reducing unproductive fiscal competition between firms. However, designing effective anti-avoidance measures can be very difficult and renegotiating treaties is a costly process. This option is most attractive if relatively simple measures, such as thin capitalisation rules, are not yet in place, or if one or two tax treaties are more generous than all others. Furthermore, this is the preferred option to address income shifting through royalties. A combination of unilaterally lowering rates to some extent and improving anti-avoidance measures is also possible.

From a development perspective, donor countries have a responsibility too. Facilitating tax avoidance in developing countries is incoherent with development policy. Supporting tax administrations in developing countries does not address this incoherence. Moreover, it is difficult for developing countries to assess the full consequences of a tax treaty themselves. Therefore donor countries like the Netherlands and Luxembourg also have a responsibility to reduce undesirable effects of their tax systems on developing countries. Policy options include adding standard anti-abuse clauses in every new tax treaty (as the UK does), revising tax ruling practices, strengthening substance requirements under domestic law, and disallowing deduction of royalties and fees paid to low tax jurisdictions in relation to intellectual property and trademarks that originate from elsewhere.

At a more fundamental level, the system of bilateral tax treaties is becoming increasingly unmanageable and dysfunctional because of SPE structures. For the EU, it makes sense to harmonise external withholding taxes and anti-abuse rules. A transition

towards harmonised rates would be complicated because of the existing bilateral tax treaty network. However, if SPE structures continue to erode the effectiveness of national law and bilateral treaties, EU-level alternatives might become more attractive. For developing countries, it makes sense to enhance tax treatment of foreign investors on a unilateral instead of a bilateral basis. This could greatly simplify their international tax policy and make policy outcomes more predictable.

Finally, a limitation of this research is that it could not systematically analyse hybrid-financing structures, rulings that define an alternative tax base, or avoidance of capital gains tax. These issues deserve attention in further research because of their potentially large impact. Especially avoidance of capital gains in major takeover transactions can have very large consequences for host country tax revenues.

## Annex 5.1 Example of asset-liability matrix construction

Assume an SPE has the following balance sheet.

| Assets | |
|---|---|
| Participations in foreign subsidiaries | 50 |
| Participations in Dutch subsidiaries | 10 |
| Loans to foreign affiliates | 40 |
| Total | 100 |

| Equity and liabilities | |
|---|---|
| Own equity | 72 |
| Unknown | 8 |
| Debt securities | 20 |
| Total | 100 |

To construct the asset-liability matrix, first equity assets are attributed to own equity, to the extent possible, and loan assets to debt. For loans and debt, the first step is straightforward in this example: all debt liabilities (20 debt securities) form part of the funding for loan assets. The equity assets consist of two items (50 + 10 participations) that can be fully attributed to own equity and unknown funding. Unknown funding is treated as equity here, because this item is probably related to valuation differences between participations and own equity, and hence similar to a revaluation reserve. The participations in foreign subsidiaries (50) are attributed to own equity (45) and unknown funding (5) in the same proportion as total own equity (72) to total unknown funding (8). The same applies to participations in Dutch subsidiaries. After this step, the asset-liability matrix looks as follows.

| | | **Equity and liabilities** | | | |
|---|---|---|---|---|---|
| | | Participations by foreign parents | Unknown | Debt securities | Total equity and liabilities |
| **Assets** | Participations in foreign subsidiaries | 45 | 5 | | 50 |
| | Participations in Dutch subsidiaries | 9 | 1 | | 10 |
| | Loans to foreign affiliates | | | 20 | 40 |
| | Total assets | 72 | 8 | 20 | 100 |

Next, remaining equity assets are attributed to debt, or remaining loan assets to equity. In this example, the net loan assets (20) are proportionally attributed to own equity (18) and unknown funding (2). Thus, with these attribution rules, the SPE in this example has the following unique asset-liability matrix.

| | | Equity and liabilities | | | |
|---|---|---|---|---|---|
| | | Participations by foreign parents | Unknown | Debt securities | Total equity and liabilities |
| Assets | Participations in foreign subsidiaries | 45 | 5 | 0 | 50 |
| | Participations in Dutch subsidiaries | 9 | 1 | 0 | 10 |
| | Loans to foreign affiliates | 18 | 2 | 20 | 40 |
| | Total assets | 72 | 8 | 20 | 100 |

Some SPEs have negative balance sheet positions. These reflect a negative valuation of investments on the assets side or negative net worth reported as negative equity on the liabilities side, for example. The matrix calculations include rules to prevent attribution of positive assets to negative liabilities (as a negative proportion) and vice versa.

# 6 General conclusion and policy implications

## 6.1 Introduction

This chapter summarizes the results from the four empirical chapters and uses these findings to answer the main research question. The introduction chapter of this thesis distinguishes different pathway effects of Dutch corporate tax policy on tax revenues in developing countries (see Figure 1.6, reproduced below as Figure 6.1). These pathway effects concern the impact of Dutch tax treaties and other aspects of the Dutch tax system on the volume of investment in developing countries, on the rate of applicable withholding tax, and on the composition of international capital and income flows.

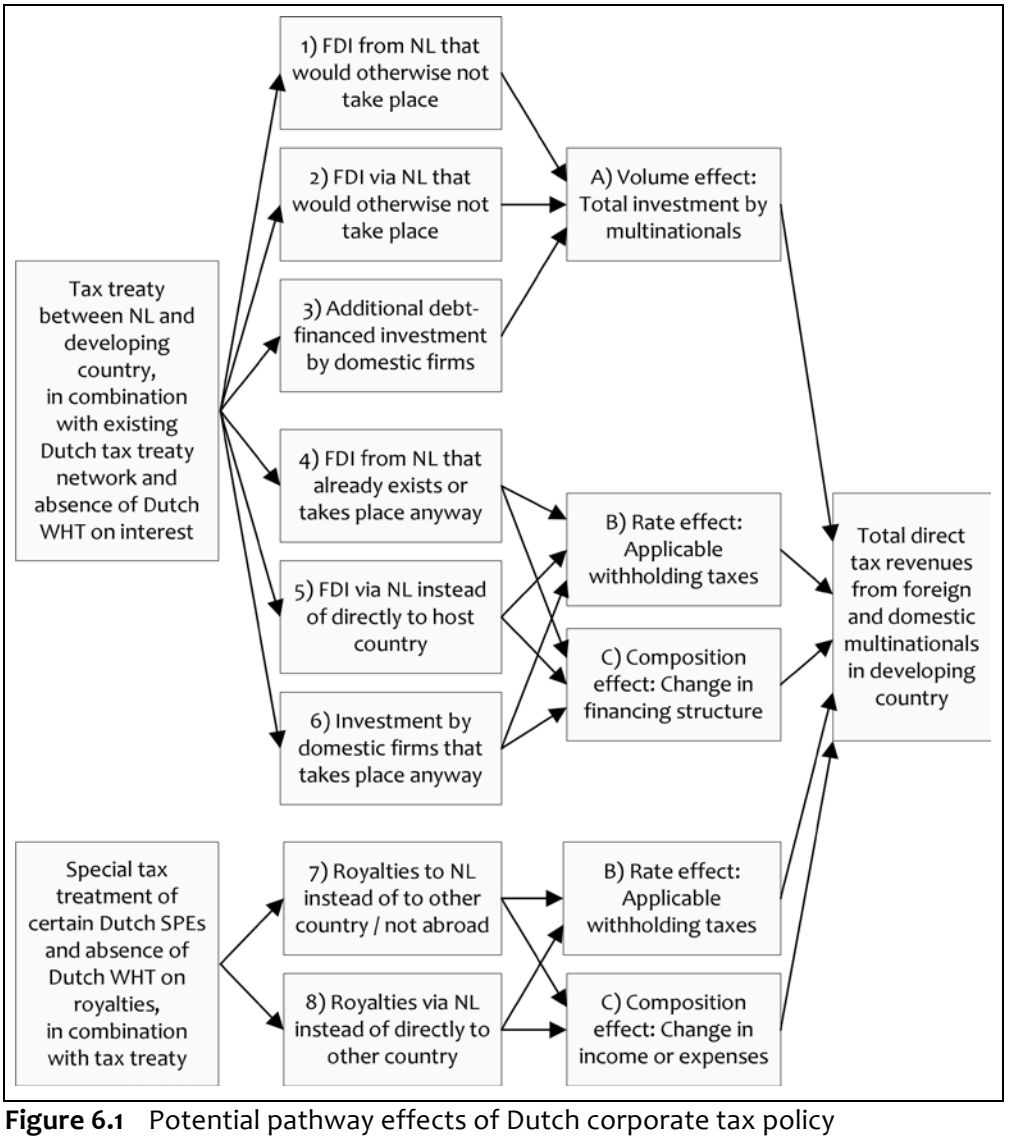


**Figure 6.1** Potential pathway effects of Dutch corporate tax policy

The empirical results mainly cover rate effects, such as lower dividend withholding taxes due to treaty shopping, and composition effects, such as changes in the financing structure of subsidiaries due to profit shifting. The first chapter also provides a broader developmental perspective for analysing revenue mobilisation (see Table 1.1). According to this perspective, taxation has four main purposes. In addition to revenue generation for the government, taxation can also play an important role in redistribution of income and wealth, representation of citizens, and re-pricing of economic alternatives. Thus, the answer to the main research question considers how Dutch corporate tax policy influences these other purposes of taxation as well.

The outline of this chapter is as follows. Section 6.2 summarizes the empirical results and answers the four sub-questions. Next, Section 6.3 presents the answer to the main research question with regard to revenue effects and Section 6.4 with regard to redistribution, representation, and re-pricing effects. Section 6.5 briefly describes the main academic contributions of this thesis and Section 6.6 discusses methodological aspects. Reflecting on the research results, Section 6.7 discusses why developing countries sign tax treaties that may produce adverse effects. Finally, Section 6.8 presents concrete and specific policy implications for the Netherlands and other donor countries.

## 6.2 Empirical results

The first empirical chapter analysed how international aspects of Dutch corporate tax policy relate to Dutch development policy. The Dutch Ministry of Foreign Affairs aims to promote coherence of government policy in other areas with its policy on development cooperation and recognises the relevance of Dutch corporate tax policy in this regard. Over the past decade, it has paid considerable attention to both domestic and international constraints for domestic resource mobilisation in developing countries, including transfer mispricing and excessive use of tax incentives. This implies that unintended negative effects of Dutch tax policy on developing countries are incoherent with development policy and can thus be considered as adverse effects. Substantial adverse effects arise from the large role of Dutch SPEs in international tax avoidance strategies of multinationals. It appears that this specific aspect of the Dutch tax system had largely escaped attention from policy makers and the broader public until 2007. The approval of the group interest box in 2006, a special low-tax regime that was to replace the Group Financing Activities regime and could obviously be used to shift profits out of developing countries, provides clear evidence of the policy incoherence. The causes of policy incoherence are structural and political in nature, because the interests of developing countries inherently conflict with special interests of various large multinationals and Dutch service providers.

The second empirical chapter investigated how tax treaties influence the diversion of FDI through Dutch SPEs and focussed on withholding tax rate effects (pathway effect

5B in Figure 6.1). The econometric analysis shows that FDI diversion is higher if the home and host country both have a tax treaty with the Netherlands, and lower if there exists a direct treaty between the home and host country. Diversion of investments is partly driven by specific corporate structures that reduce the total tax on distributed foreign profits by taking advantage of reduced withholding taxes under Dutch tax treaties. It can therefore be concluded that FDI diversion partly results from tax treaty shopping. On average, the possibility to avoid dividend withholding tax causes a few additional percent of bilateral FDI stock to be routed through the Netherlands. This is consistent with descriptive statistics on diverted FDI. In 2007, out of the €582 billion of inward FDI in developing countries[130] that have a tax treaty with the Netherlands, €53 billion or approximately 9% was held via Dutch SPEs. For the group of developing countries that did not have a tax treaty with the Netherlands, this proportion was 6%, thus a third lower.

In theory, FDI diversion can have both a volume effect and a rate effect (pathway effects 2A and 5B in Figure 6.1, respectively). However, studies analysing the volume effect of tax treaties on total FDI in a developing country (pathway effects 1A and 2A combined) have produced mixed results. At the level of developing countries as a group, a significant positive volume effect is even more uncertain than at the level of individual countries. It can therefore be concluded that the rate effect is dominant.

The third empirical chapter assessed the relation between Dutch SPEs and the financing structure of EU-based multinationals, both at the firm and subsidiary level. Thus, it investigated effects of the Dutch tax system on the composition of invested capital (pathway effects 5C and 6C). At the firm level, debt issuance via Dutch SPEs allows to avoid withholding taxes on interest payments to all debt security holders and is associated with significantly higher debt financing. Controlling for relevant firm characteristics, EU firms with a Dutch issuing SPE on average have a ten percentage points higher ratio of debt to equity capital plus debt. This large effect could result from differences in tax aggressiveness; firms with a more aggressive tax strategy may use more debt financing and are also more likely to avoid withholding taxes via Dutch SPEs. At the subsidiary level, the analysis produces three important results. First, EU subsidiaries of larger multinationals are more leveraged. Second, the use of Dutch onlending SPEs is associated with higher subsidiary leverage. Third, in large firms, the sensitivity of subsidiary leverage to host country tax rate is relatively low. In combination, these results suggest that large firms are more likely to shift profits from EU subsidiaries to special lowly taxed affiliates and that this is partly facilitated by Dutch onlending SPEs.

The findings on the financing structure of subsidiaries show that intra-group onlending has a composition effect. In case this involves profit shifting to low-tax jurisdictions, there may not be a corresponding rate effect in the host country, because the final destination of interest payments is related to the use a Dutch onlending SPE.

[130] Excluding Brazil, the Russian Federation, India, China, South Africa, and Mexico.

For example, it is possible that subsidiaries of firms with a Dutch onlending SPE borrow more from tax haven affiliates via the SPE, whereas subsidiaries of other firms borrow mainly from affiliates in non-haven countries to which a low or zero interest withholding tax applies. Applicable withholding tax rates could then be similar for both types of firms.[131] Thus, profit shifting through intra-group loans is a specific tax strategy that has other revenue effects than FDI diversion in general. By contrast, external debt financing at the firm level has both a composition and a rate effect (pathway effects 6B and 6C); potential volume effects (3A) have not been investigated.[132]

The fourth empirical chapter analysed how specific tax avoidance strategies facilitated by Dutch SPEs affect developing countries, assessing the relative importance of various rate and composition effects. Descriptive statistics confirm that a key purpose of Dutch SPEs is to avoid various types of withholding taxes (pathway effects 5B and 6B). Royalty companies and intra-group loan conduits also facilitate avoidance of host country corporate income tax through profit shifting (7C/8C and 5C, respectively). Avoidance of withholding taxes and income shifting through royalty payments have the largest effects on developing countries. Tax avoidance via Dutch SPEs affects developing countries in an uneven way. The most affected developing countries have a tax treaty with the Netherlands that specifies substantially lower withholding tax rates than the rates that apply to most other countries, without effective anti-avoidance mechanisms. Profit shifting through royalty payments probably affects many developing countries, including some countries that do not apply reduced royalty withholding taxes to the Netherlands.

## 6.3 Revenue effects

The answer to the main research question, which regards the adverse effects of Dutch corporate tax policy on developing countries, follows from the findings of the four empirical chapters. This section addresses the revenue aspect. The next section discusses effects on other purposes of tax systems beyond revenue generation.

It can be concluded that several aspects of Dutch corporate tax policy have negative revenue effects on developing countries. These effects can be considered adverse because they are incoherent with the aims of Dutch development policy and against the interests of developing countries. This thesis provides evidence of adverse revenue

[131] Depending on broader internal financing structures, interest income may be shifted from affiliates in other countries to affiliates in tax havens.

[132] Rodrik and Subramanian (2009) provide a compelling argument that investment in many developing countries is not constrained by access to external finance, but by attractive investment opportunities. This suggests that lower external borrowing costs due to lower withholding taxes probably generate only a small volume effect on investment by domestic multinationals. The effect on total investment can even be negative if additional external borrowing crowds out domestic finance and appreciates the real exchange rate, reducing competitiveness of the export sector.

effects for four specific aspects of Dutch corporate tax policy. Table 6.1 summarizes these aspects, their effect on the financing structure and intra-group transactions of multinationals, the main types of revenue effects, and corresponding income flows from developing countries to or via Dutch SPEs. The table also mentions some key countries identified in this thesis that are affected by different SPE structures. The pathway codes in the table refer to Figure 6.1. As explained in the introduction, this thesis focusses on negative and unintended effects, which have so far received less attention in academic studies. Therefore Table 6.1 does not mention pathway effects 1A, 2A and 3A, which are usually positive, and 4A and 4B, which are usually taken into account as known by-effects of tax treaties. It would also be difficult to estimate the volume effects 1A and 2A on the basis of existing studies. The reason is that those studies analyse the average effect of tax treaties on individual developing countries, which probably differs from the specific effects of Dutch tax treaties on developing countries as a group. Furthermore, it would be difficult to calculate the partial revenue effect of increased inward FDI, because this involves estimating the taxable profits generated by additional foreign investments. The revenue effects of Dutch corporate tax policy investigated in this thesis are described below.

First, Dutch tax treaties that specify relatively low dividend withholding tax rates, without anti-avoidance provisions, allow avoidance of dividend withholding tax by foreign multinationals and therefore induce tax treaty shopping. In 2007, Dutch SPEs passed on €2.9 billion of dividends from developing countries to foreign parents. Assuming that foreign multinationals avoided on average 3 percentage point withholding tax in the host country on these diverted dividend flows, missed tax revenues for all developing countries combined would be roughly €100 million.[133]

Second, Dutch tax treaties that specify relatively low interest withholding taxes, without anti-avoidance provisions, facilitate several types of tax avoidance strategies. Combined with the absence of a Dutch withholding tax on interest, these tax treaties (and the EU Interest and Royalties Directive) enable avoidance of withholding tax on interest paid to foreign affiliates. In 2007, Dutch SPEs passed on approximately €0.4 billion of interest payments from developing countries to affiliates in other countries, of which €0.2 billion to affiliates in tax havens. Probably the payments to non-havens mainly reduce interest withholding taxes. The payments to tax havens confirm that for developing countries, intra-group onlending via Dutch SPEs involves substantial profit

[133] The assumption of 3 percentage point average withholding tax reduction allows for FDI diversion for non-tax reasons that does not benefit from lower withholding taxes. In case FDI diversion reduces withholding taxes in the host country, the reduction is often 5 or 10 percentage points, because most tax treaties specify maximum withholding tax rates that are a multiple of 5%. For firms from non-EU countries, the total withholding tax reduction may be lower than the reduction in the host country if a Dutch withholding tax applies to dividends that are passed onwards. In such cases, some dividend withholding tax revenues are effectively transferred from developing host countries to the Netherlands. The estimate assumes that missed tax revenues are not materially offset by additional revenues from a positive volume effect on FDI, for the reasons mentioned in the previous section.

**Table 6.1** Adverse effects of Dutch tax policy on tax revenue in developing countries

| Aspect of Dutch tax policy | Path-way[a)] | Effect on financing structure and transactions | Main effect on tax revenue in developing countries | Income flows[b)] (€ bn) | Key countries affected |
|---|---|---|---|---|---|
| Tax treaties reducing dividend WHT | 5B | Equity participations diverted via NL | Rate effect: lower dividend WHT | 2.9 | Philippines, Mongolia, Ghana |
| Tax treaties reducing interest WHT, no interest WHT in NL | 5B | Intra-group loans from normal countries diverted via NL | Rate effect: lower interest WHT | 0.2 | Indonesia |
| | 5C | Intra-group loans from tax havens via NL | Composition effect: larger share of debt financing reduces corporate income tax | 0.2 | |
| | 6B 6C | Debt issuance and external borrowing via NL | Rate and composition effect: lower interest WHT, larger share of debt financing reduces corporate income tax | 1.1 | Indonesia, Kazakhstan |
| APAs resulting in low effective tax rate | 7C | Royalty payments to NL | Composition effect: larger royalty payments abroad | 0.3 | Ghana, South Africa |
| Tax treaties reducing royalty WHT, no royalty WHT in NL | 8B | Royalty payments to normal countries diverted via NL | Rate effect: lower royalty WHT | 0.1 | |
| | 8C | Royalty payments to tax havens diverted via NL | Composition effect: larger royalty payments abroad | ..[c)] | |

Note: WHT = withholding tax, APA = advance pricing agreement; [a)] pathway effects refer to Figure 6.1; [b)] estimate of corresponding income flows from low and middle income countries (outside EU) to or via Dutch SPEs; interest payments on debt issued via NL for 2010, other income flows for 2007; [c)] no estimate because of insufficient data.

shifting. This is likely to increase subsidiary leverage, but does not necessarily reduce withholding tax revenues, as discussed in the previous section.[134]

The same aspects of the Dutch tax system also facilitate avoidance of withholding tax on interest paid to external creditors. For example, in 2010, Dutch SPEs passed on

[134] Chapter 3 shows that the use of Dutch onlending SPEs is associated with a 6 percentage point higher ratio of debt to total assets. An average leverage ratio of 0.6 implies that the use of Dutch onlending SPEs increases debt financing of subsidiaries by 10% and reduces their tax charge by approximately 2-3% of total interest payments. Rate effects (which are mainly associated with payments to non-havens) can be larger, for example for Indonesia rate effects can amount to 10% of interest payments.

€0.6 billion of interest payments from Indonesian firms to holders of debt security holders, resulting in estimated missed withholding tax revenues of approximately €50 million.[135] Some other developing countries are also affected, including Kazakhstan, Nigeria, and Venezuela. The missed withholding taxes in those countries are considerably lower, though. As withholding tax avoidance reduces borrowing costs, it is associated with substantially higher debt financing relative to equity. This limits the tax base in the firm's home country and therefore results in an additional revenue loss, which may be equal to a third of the avoided withholding tax.[136]

Third, advance pricing agreements between SPEs and the Dutch tax authority that specify an alternative tax base can facilitate profit shifting to the Netherlands through royalty payments or other types of transactions.[137] In 2007, Dutch SPEs received approximately €0.3 billion of royalty income from developing countries that was not passed onwards. At least part of these flows involved profit shifting to the Netherlands.

Fourth, Dutch tax treaties that specify relatively low royalty withholding taxes, again without anti-avoidance provisions, combined with the absence of a Dutch withholding tax on royalties, may result in avoidance of royalty withholding tax. In 2007, royalty income from developing countries passed on by Dutch SPEs was €0.1 billion and thus relatively small. The absence of a Dutch withholding tax on royalties can also facilitate profit shifting to low-tax affiliates in other countries by way of royalty payments passing through Dutch SPEs. This affects developing countries indirectly, for example in the case of Google, which collects royalties from African countries in Ireland and then passes on this royalty income via the Netherlands to Bermuda.

Withholding tax avoidance by multinationals raises broader revenue issues. The efforts of multinationals to avoid interest withholding tax indicate that these practices yield private benefits and thus the withholding tax does not merely reallocate tax revenues between different countries. For payments to external creditors, this suggests

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[135] This estimate takes into account that interest payments may have been some 12% lower if they were not passed through a Dutch SPE, because withholding tax avoidance induces larger debt financing (see also note 136). Roughly half of the interest payments concern the state-owned energy company Persero. Thus, the missed tax revenues are partly offset by higher profits of this company. However, Persero incurs some costs for operating the tax avoidance structure and the lower borrowing costs probably induce higher debt financing. As a consequence, the structure still reduces total revenues for the Indonesian government.

[136] Chapter 3 shows that the use of Dutch issuing SPEs is associated with a 10 percentage point higher ratio of debt to debt plus equity, at least for publicly listed EU manufacturing firms in the period 1997-2005. An average debt ratio of 0.5 implies approximately 20% higher total debt financing for firms that use a Dutch issuing SPE, which would raise interest payments (net of withholding taxes) by more than 20% due to increasing marginal borrowing costs. Assuming a more conservative increase in deductible interest payments of 14% in the case of Indonesia suggests a reduction in tax revenues of approximately 3% of total interest payments. Considering that according to Table 5.9 most debt of Indonesian firms is issued via Dutch SPEs, this reduction is roughly a third of the withholding tax avoidance, which is estimated at 10% of interest payments via Dutch SPEs.

[137] The Dutch Group Financing Activities regime, which was phased out by end-2010, had similar effects. In 2007, this regime may still have applied to some Dutch SPEs that received royalty income from developing countries.

that some recipients cannot obtain a full tax credit for the withholding tax paid abroad. Those recipients may be pension funds or other tax-exempt investors based in normal economies as well as investors registered in low-tax jurisdictions. Taking into account that the private wealth held in such jurisdictions is extremely large and mostly invested in fixed income securities, it is plausible that avoidance of interest withholding tax is also linked to personal income tax evasion on offshore assets.

## 6.4 Redistribution, representation and re-pricing effects

Considering the other purposes of taxation beyond revenue generation, it can be concluded that tax avoidance strategies facilitated by Dutch corporate tax policy have further adverse effects on developing countries. They also have an impact on the redistribution, representation, and re-pricing roles of taxation.

The effect on income redistribution is rather complex, because it is difficult to determine who ultimately bears the withholding and corporate income tax paid by multinational firms and benefits from tax avoidance. Probably some of the private benefits from tax avoidance accrue to the shareholders of multinational firms. However, part of the tax savings may also be passed on to customers and consumers, through lower sales prices, and to suppliers and creditors, through higher procurement prices and interest rates. The distribution among shareholders, clients, suppliers, creditors, and other stakeholders depends on the characteristics of the markets in which the firm operates. If a firm has some degree of market power or has a highly inelastic demand for its products and debt securities, the shareholders can capture a larger part of the benefits. A substantial part of the benefits accrues to beneficiaries are in high income countries.

In addition to the net private benefits for the firm, two types of actors also benefit from the costs that a firm incurs through its tax avoidance practices. The first type are tax advisors, law firms, accountants, administrators, and other service providers that help to set up and manage tax avoidance structures. For Dutch SPE structures, specialised firms in the Netherlands provide the majority of these services. Some structures also involve SPEs in other countries, such as Bermuda or Ireland. The second type are foreign governments that obtain revenues[138] from (relatively low) withholding

[138] The Dutch Central Bank estimated that Dutch tax revenues from SPEs were €1.2 billion in 2001 (DNB, 2003). More recently, a consultancy firm estimated the tax revenues from Dutch legal entities administrated by trust firms (these entities are also known as mailbox companies) at €1.2 billion in 2006 and €0.9 billion in 2009, on the basis of a survey among trust firms (Risseeuw & Dosker, 2011). These figures are not fully comparable to the central bank estimate, though, for two reasons. First, some large SPEs are not managed by external administrators. Second, trust companies also manage other entities that are no SPEs, such as securitisation vehicles of Dutch banks. Probably a large part of the Dutch tax revenues from SPEs consist of dividend withholding tax. The revenues have been declining because of the cooperative structures explained in Chapter 5. It is not clear whether revenues have been rising again since the introduction of domestic anti-avoidance legislation in 2012.

taxes and corporate income taxes on the operational margins of SPEs. Thus, the tax avoidance facilitated by Dutch SPEs redistributes income from developing countries to the Netherlands and other high income countries.

Distributional effects at the domestic level in developing countries are less clear and depend on the incidence of other types of taxes. The more progressive the domestic tax system, the less likely that tax avoidance by multinational firms has an adverse impact on redistribution within a developing country.

The effect on representation is somewhat ambiguous. On the one hand, tax avoidance by foreign and domestic multinationals can weaken broader taxpayer morale (IMF, 2011) and hinder constructive revenue bargaining. On the other hand, citizens in developing countries may find other revenue problems more pressing, such as excessive tax incentives for foreign investors offered by the government itself or the diversion of public revenues by domestic elites. In case the tax practices of a specific multinational become the subject of a public scandal, it is also possible that this has a positive by-effect on representation by strengthening civil society groups that promote responsible tax practices and stimulating tax reforms.

Finally, the re-pricing effect of tax avoidance by multinationals goes well beyond incentives for higher debt financing and is decidedly negative. Tax avoidance reduces market efficiency, because it redirects resources to unproductive uses and distorts competition between large firms that can engage in international tax arbitrage and medium-sized or smaller firms that cannot. These negative effects on broader economic development are difficult to quantify, but may be at least as important as the direct effect on public revenue mobilisation.

## 6.5 Academic contributions

This thesis intends to make several contributions to existing academic research. Overall, the main contribution is that it shows how foreign corporate tax systems can affect domestic revenue mobilisation in developing countries. The thesis builds a bridge between development studies and economic research on corporate taxation. In the field of development studies, research on taxation has mainly focussed on domestic issues or regional tax competition and attention for broader international constraints to raising corporate tax revenues has been limited. By contrast, many studies on corporate taxation examine international tax strategies of multinational firms, but these studies pay little attention to consequences for developing countries. This thesis shows that corporate tax revenues are a relatively important source of public finance for many developing countries and that these revenues can be negatively affected by tax treaties that strongly reduce withholding tax rates. Importantly, the potential negative effects extend beyond lower withholding tax revenues from existing investments, or investments that would occur regardless of the treaty, originating from the partner country itself. A structural

analysis of such negative effects was lacking so far. The thesis also contributes to a better understanding of withholding tax avoidance in general, a relatively neglected issue in empirical economic research.

Regarding the field of development studies, this thesis extends academic literature on policy coherence for development towards tax policy in donor countries. Various studies of policy coherence, for example by Hoebink (2004) and Keijzer (2010), provide a useful framework for analysis and review a broad range of policy areas, but do not yet consider tax policy. Some recent policy documents (e.g. European Commission, 2011; OECD, 2012c) do include initiatives to strengthen tax systems in developing countries. However, these documents do not address potential incoherence between tax policy and development policy in donor countries. This thesis nevertheless shows that such incoherence is relevant to take into account, since it can hinder revenue mobilisation in developing countries. Donor countries can address policy incoherence by systematically assessing the impact of their tax policy on developing countries. All in all, this means that it is useful to include tax policy in further analyses of policy coherence for development.

Linked to this, the thesis also presents an alternative "beyond ODA" perspective. Existing literature on development cooperation beyond ODA mainly considers alternative forms of external financing (e.g. OECD, 2012a; Vanheukelom et al., 2012), new types of international taxes (e.g. Addison et al., 2005; United Nations, 2012), and non-aid issues other than tax policy, such as trade policy and corporate social responsibility (e.g. Kalinowski, 2011; Wilde Ramsing, forthcoming). Increasing fiscal self-reliance of developing countries should also be considered a key aspect of moving beyond ODA, because in the long run ODA is not a sustainable source of financing. This thesis shows that donor countries can support that aim, and thus provide an important type of support beyond ODA, by addressing international obstacles to revenue mobilisation in developing countries.

A more fundamental contribution to the literature lies in the development of a contemporary analytical and normative framework regarding financing for development. Often existing literature focuses on foreign sources of development financing and pays limited attention to the distinction between public and private sources (e.g. World Bank, 2011b). There is, for example, a tendency to compare the volume of ODA to FDI and to migrant remittances. Such an analytical approach has probably been influenced by policy responses to the debt crises of the 1980s and 1990s, which were primarily concerned with solving balance of payment problems and restoring macroeconomic stability. For those policy objectives, all external flows are relevant, even though their roles in financing development may be very different. Moreover, in responses to the debt crises, fiscal balance was often regarded more important than the adequacy of government revenues to finance essential public goods and services. In contrast to literature that follows such an approach, other studies analysing financing for development distinguish explicitly between private and public components, recognising

or even emphasising the relevance of these components for particular financing needs (Botchwey, 2003; OECD & AfDB, 2010). The current thesis adds to this line of thinking by analysing developments within different subsets of financing sources – external sources of private earnings, financing for private investments, and financing of public goods and services – with a focus on public finance.

The thesis contrasts ODA with domestic revenue mobilisation and shows that lower-middle income countries have compensated decreasing aid levels by increasing tax revenues, whereas low income countries remain highly dependent on development aid for public financing. The analysis suggests that further increasing fiscal self-reliance remains important for both groups of countries. In sum, the current thesis departs from the former overall focus on external flows and separately analyses different components of financing for development, including domestic as well as foreign sources. It presents fiscal self-reliance as a central aim for the public component of financing for development. Such a normative framework has only been applied in a few other studies before (e.g. Heggstad, 2011; McKinley & Kyrili, 2009).

It must be acknowledged that private sources of financing can also contribute to domestic revenue mobilisation by generating additional economic activity and thus broadening the tax base. However, reviewing the existing literature, it appears that effects on public finance are still poorly understood. There exist no empirical studies that assess the impact of increasing FDI in developing countries on tax revenues, for example. This contrasts with the large body of literature studying the impact of tax systems on FDI, in line with the analytical focus on external flows mentioned above. The lack of research on revenue effects of private external financing flows also contrasts with the abundance of research on growth effects of these flows. The theoretical framework presented in this thesis, which recognises public finance as a separate component of financing for development and fiscal self-reliance as a key aim, helps to identify and address such research gaps.

To analyse revenue mobilisation in developing countries, the thesis further develops the developmental framework of Cobham (2005b) that distinguishes four key roles of taxation. The original framework was mainly intended for analysing tax systems at the level of main revenue components, such as foreign aid, natural resource rents, direct taxes, consumption taxes, and trade tariffs. This thesis integrates general disincentives to economic activity and market distortions as well as the potential for countercyclical fiscal policy into the framework. It shows that the extended framework is also useful to study more specific types of taxes, such as corporate tax or withholding tax. The extended framework has broad applicability and may enable more comprehensive academic analyses of tax policy, with more consideration for other roles of taxation beyond revenue generation.

Regarding the field of corporate taxation and international investment, the thesis provides a new theoretical framework to study firm behaviour by distinguishing volume, rate, and composition effects. Most studies in this field are concerned with effects of tax

policy on the volume of FDI. A small body of literature addresses profit shifting and thus composition effects. By contrast, there exists hardly any empirical evidence on the magnitude of rate effects. This is somewhat surprising, because intended rate effects, notably effects of new tax treaties on withholding tax revenues from existing investments covered by these treaties, are relatively easy to investigate. The framework presented in this thesis may help to rebalance research efforts. Moreover, it may help to better understand firm behaviour by considering the possibility of FDI diversion. Although FDI diversion is an important aspect of how multinational firms respond to tax policy, this aspect is rarely taken into account in economic analysis.

The main empirical contribution to research on corporate taxation is that the thesis provides one of the first quantitative analyses of FDI diversion and yields strong evidence of tax treaty shopping. So far, there exist only a few other studies that present direct empirical evidence on tax treaty shopping (Dreßler, 2012; Weichenrieder & Mintz, 2008). These other studies analyse the probability that firms use intermediate holdings and do not describe the overall magnitude of diverted investments. The current thesis therefore provides the first estimates of the effect of tax treaties and withholding tax reductions on the amount of FDI diversion. The effect is material, which calls for a reinterpretation of studies that conclude that tax treaties have a positive effect on bilateral FDI (Barthel, Busse, & Neumayer, 2010; Blonigen & Davies, 2008; Siegmann, 2007). This thesis demonstrates that the apparent positive effect partly results from tax treaty shopping. Thus, it shows that most studies overestimate the effect of a tax treaty on FDI originating from the partner country itself. Furthermore, tax treaty shopping increases bilateral FDI from treaty countries relative to non-treaty countries, but does not necessarily increase total inward FDI from all countries combined. Therefore the findings in this thesis also imply that the effect of tax treaties on total inward FDI may be smaller than most existing studies suggest.

In addition, the thesis shows that the effects of tax treaties are heterogeneous and depend on the combination of domestic tax law and specific provisions in the treaty. Except for a few studies on tax sparing clauses (Azémar et al., 2006; Hines, 2001), all existing economic studies investigating the effect of tax treaties on FDI regard tax treaties as homogenous and use dummy variables only to test their impact on FDI. This thesis finds that differences in the reduction of dividend withholding tax rates have a significant effect on FDI patterns, even after controlling for the general effect of tax treaties. Moreover, it shows that analysing effects of tax treaties without taking into account relevant treaty characteristics can produce misleading results. The analysis of FDI diversion with general tax variables in Chapter 3 suggests that treaty effects differ between developing countries and other non-EU host countries, for example. The analysis with strategy-specific tax variables in the same chapter shows that this difference becomes insignificant once bilateral withholding tax reductions are accounted for. Similarly, the analysis of SPE structures at the country level in Chapter 5 shows that some structures can be explained by specific treaty characteristics. The large debt

issuance via Dutch SPEs by firms from a few countries that apply relatively low withholding tax rates to the Netherlands, notably Indonesian and Kazakhstan, is a good example. Thus, the findings imply that further economic research on tax treaties should consider differences in tax treaty benefits.

Regarding research methods, the thesis presents a new approach to analyse treaty shopping and SPE structures. This new research approach relies on the use of anonymised DNB micro data on Dutch SPEs, which have not yet been used in other academic research projects. Most studies on corporate tax strategies focus on multinationals from, or investing in, a specific high income country or a set of European countries. The current thesis analyses investments from and to over 100 countries that pass through a specific intermediate country. This new approach provides more information about certain types of tax avoidance in developing countries, because it allows to analyse FDI in developing countries from many different home countries. The limitation of this approach is that it works only for tax strategies in which the intermediate country, in this case the Netherlands, figures prominently.

Finally, by developing a typology of SPEs and testing different SPE types in an analysis of capital structures, the thesis helps to understand the use of SPEs. Other empirical research on the use of SPEs mainly focusses on entities located in low-tax jurisdictions or on intermediate holdings (Desai et al., 2002; Desai et al., 2006; Dreßler, 2012; Weichenrieder & Mintz, 2008). By contrast, this thesis analyses SPEs in a conduit country with a normal tax rate and it covers various well-defined SPE types. The quantitative description of Dutch SPE structures can help to focus further research efforts on particular tax strategies or investments in particular countries. The typology developed in this thesis can also form a basis for research on SPEs in other conduit countries.

## 6.6 Methodological robustness and limitations

In addition to the separate discussions at the end of each empirical chapter, some general comments on methodological robustness and limitations are in place.

To start with robustness, the combination of comprehensive anonymised micro data and many concrete cases of corporate structures involving Dutch SPEs shows unambiguously that Dutch corporate tax policy enables tax avoidance in developing countries. A key strength of the research is that it does not treat SPEs as black boxes, but distinguishes clearly between different types of SPEs and associated tax strategies. In Chapter 4, for example, this demonstrates that debt-financing effects are linked to the use of specific types of onlending SPEs and not a mere coincidence. Ultimately, the robustness and strength of the research is based on a thorough examination and – labour intensive – processing and crosschecking of data from different sources. This also applies to the introductory chapter, which combines revenue data from various sources

to provide a more reliable and representative description of tax systems in developing countries. Furthermore, the econometric analysis in the Chapters 3 and 4 relies on models of firm behaviour that are appropriate for large firms and allow for complex internal financing structures. These models are relatively flexible and do not assume a relationship between total external debt financing and intra-group debt shifting, for example. Thus, the research relies on robust data and suitable model assumptions.

The main methodological limitation of this thesis is that each empirical chapter uses data for a small number of years only. This is primarily due to data constraints. The DNB micro data set contained suitable data for 2006 and 2007, IMF CDIS data are available from 2009 onwards only, and the Reach and Amadeus databases cover a maximum period of 10 years. As a consequence, it was not possible to analyse developments over time using panel data techniques. Even for the period 1997-2005 analysed in Chapter 4, variation in SPE structures over time was limited. However, possibilities to analyse developments over time are also limited by other factors than data availability. Dutch SPE structures can remain in place for a considerable time after they have become obsolete. Some SPE structures are established at the moment a certain investment is planned, thus not exhibiting any within-firm variation over time, whereas some large complex SPE structures change continuously, even though their basic purpose may remain approximately the same. Due to acquisitions and divestments, the firms to which SPEs belong also change continuously themselves. This last factor makes it practically impossible to conduct a meaningful econometric analysis of tax strategies of very large multinationals over a period of more than 10 years.

Another limitation is that this thesis could not analyse the effect of FDI diversion on total FDI in developing countries. This is also primarily due to data constraints. As noted in the introductory chapter, investments diverted via the Netherlands are only included in FDI statistics reported by host countries. For many developing countries, such statistics are not available or inconsistent.

Furthermore, the thesis analysed effects of Dutch SPEs only without taking into account SPEs in other countries. This might have caused slight distortions in the econometric analyses. These distortions are probably small, though, because the Netherlands is by far the largest conduit country for FDI and the main location of issuing SPEs for firms from Indonesia and some other developing countries. The analysis could also not assess the effects of more complex structures in which Dutch SPEs pass on dividend and interest payments from tax havens. Such structures represent a substantial part of total SPE operations and ultimately affect tax revenues in non-haven countries as well. Moreover, no data are available on tax avoidance structures involving hybrid entities or hybrid financing. Adverse effects of advance pricing agreements could not be analysed in a comprehensive manner and avoidance of capital gains tax has not been analysed. As a consequence, this thesis describes only some of the most important adverse effects on developing countries.

The analysis of SPE structures is mainly based on statistical data, company reports, and other sources that do not contain direct information on the motivation behind these structures. Direct information would have been very useful; it was beyond the scope of this research project to ask managers of foreign multinationals themselves about the rationale for Dutch SPE structures.[139] Some information about the purpose of SPE structures was obtained from court cases and materials from tax advisors. In order to better understand the findings, the results on SPE structures have also been discussed with various experts with relevant practical experience. Thus, the research involved special efforts to avoid misinterpretation of data and statistical analyses.

The detailed data presented in Chapter 5 allow a reassessment of findings from earlier chapters. The SPE micro data suggest that the estimates of missed tax revenues in Chapter 2 assumed too high dividend payments and intra-group interest payments from developing countries. The micro data support the approximate volume of total missed tax revenues, though. Chapter 5 also showed that many extractive industry firms have diverted investments into countries that do not have tax treaty with the Netherlands. This suggests a potential determinant of FDI diversion that was not included in the analysis in Chapter 3 and might help to explain FDI diversion into non-treaty countries. The indirect evidence for profit shifting to low-tax affiliates in Chapter 4 may be questioned in light of the volume of interest payments to tax haven affiliates. Chapter 5 shows that in 2007, such payments from the EU and other high income countries were €1.3 billion. This is a significant amount, yet probably too low to fully explain the higher leverage of EU subsidiaries in firms with a Dutch onlending SPE. A larger amount, approximately €4 billion, was passed on to affiliates in non-havens. A possible explanation is that some onlending Dutch SPEs increase the average leverage of EU affiliates by acting as internal banks and facilitating access to short-term internal credit. If affiliates with short-term financing needs can borrow internally at all times and at a low cost, this may reduce the need to retain earnings as a financial buffer.[140] An alternative explanation might be that the use of Dutch SPEs to finance EU subsidiaries changed significantly from 1997 to 2007 due to on-going economic integration or developments in corporate tax strategies.[141] SPE data for 2007 could then not be fully compatible with findings

[139] Most Dutch SPEs do not have a physical presence in the Netherlands and it could be difficult to contact the right person in a foreign multinational to discuss tax planning. Moreover, multinational firms that engage in controversial tax planning practices are usually not very eager to discuss these.

[140] Onlending SPEs might then still be located in the Netherlands because of the absence of interest withholding taxes, in combination with the favourable tax treaty network. This could facilitate the pooling of intra-group deposits and loans for affiliates inside as well as outside the EU.

[141] A potentially relevant development is profit shifting from the UK to tax havens through bonds that are listed on a recognised exchange but not actually traded. In such structures, an affiliate based in a tax haven effectively provides an intra-group loan to a UK entity in the form of a bond loan. This enables multinationals to avoid UK withholding tax on interest payments to tax haven affiliates without the use of a Dutch onlending SPE.

about the use of SPEs over in earlier years.[142] Chapter 5 also finds that EU firms with outstanding debt securities issued via Dutch SPEs are mainly based in Portugal, Spain, and Germany. Some UK firms included in Chapter 3 have stopped using Dutch issuing SPEs after 2007. This is partly due to corporate restructurings.[143] It is possible that certain issuance structures are no longer in use because they have become obsolete.[144] Portugal and Spain continue to be significantly affected, though.

DNB macro data series on Dutch SPEs suggest that data for the years 2007 and 2010, used in the Chapters 3 and 5, are representative for the overall volume of SPE operations in other recent years. All main balance sheet positions of the Dutch SPE sector are steadily increasing over time. Total assets, participations in foreign subsidiaries, loans to foreign affiliates, equity participations by foreign parents, and loans from foreign affiliates have all approximately doubled from 2005 to 2011. Outstanding debt securities also increased steadily, but less quickly. Income flows are more volatile, yet show a clear upward trend as well. Dividend and interest of Dutch SPEs income declined by 20% from 2007 to 2009, but in 2010 it was back at the high level of 2007. Thus, future adverse effects are likely to be at least as large as those estimated in this thesis.

## 6.7 Why do countries sign tax treaties that have adverse effects?

The findings form this thesis raise an important question. If certain tax treaties with the Netherlands produce substantial negative effects for developing countries, then why did the governments of those countries sign such a treaty? If governments of partner countries were fully aware of the risk for withholding tax avoidance when they agreed to a treaty that strongly reduces withholding tax rates without anti-avoidance provisions, they might bear responsibility for the adverse effects themselves.

This thesis did not investigate the reasons why developing country governments conclude tax treaties. It is generally argued that they do so expecting that tax treaties will promote FDI, since treaties offer legal certainty and withholding tax reductions to foreign investors and can signal a commitment to international investment rules. If developing countries are very eager to sign tax treaties, then this may weaken their

[142] In 2007, the proportion of intra-group interest passed on to tax havens was much larger for developing countries than for the EU and other high income countries. Thus, the effect on subsidiary leverage identified in chapter 4 might still hold for developing countries, even if the situation has changed in the EU.

[143] For example, in 2008, UK-based Imperial Chemical Industries was taken over by Netherlands-based Akzo Nobel.

[144] Some debt-issuing structures remain in place for ten years or more after an SPE issues its latest debt securities, until all long-term debts have matured. A as consequence, issuing structures may change slowly and respond to regulatory developments with a long delay.

negotiating position and cause them to accept relatively large withholding tax reductions and treaties without anti-avoidance clauses. Some developing countries may also simply lack the administrative capacity, technical expertise, and experience that are needed to conclude more balanced tax treaties with fewer possibilities for abuse.

A few theoretical studies try to explain the network of asymmetric tax treaties between net capital importing (developing) and net capital exporting (high income) countries. In the most relevant study, Baistrocchi (2008) argues that developing countries are faced with a prisoners dilemma. Competition for FDI may lead them to sign tax treaties that reduce their taxing rights in an attempt to become relatively more attractive for foreign investors. However, if other developing countries sign similar tax treaties, then they are worse off as a group. An empirical analysis confirms that developing countries are more likely to conclude tax treaties if other developing countries producing similar exports, and thus potentially competing for export-oriented FDI, also expand their tax treaty network (Barthel & Neumayer, 2012).

For investment treaties, empirical research provides additional insights. One study finds that developing countries that have already succeeded in attracting substantial FDI are more likely to conclude BITs. This suggests that negotiations are partly driven by interests of existing investors (Swenson, 2009). Another study shows that developing countries governments largely ignore the risk that BITs can result in large claims until this risk materialises. After that, a country becomes much less inclined to sign new BITs (Poulsen & Aisbett, 2013).

Anecdotal evidence suggests that, to some extent, these findings apply to tax treaties as well. Developing countries may be encouraged to conclude tax treaties that benefit existing foreign investors. This may also be the case for some tax treaties with the Netherlands and it is possible that the interests of existing investors include those of foreign multinationals that have invested via Dutch SPEs. Existing investors do not always play a role, though. The treaties with Mongolia and Uganda, concluded in 2002 and 2004 respectively, illustrate this. No substantial investments from or via the Netherlands existed before these treaties were concluded and by 2012, FDI originating from the Netherlands itself in these countries remains low.[145]

Analogous to investment treaties, developing countries may also conclude treaties with low withholding tax rates and no anti-avoidance clauses until they are confronted with serious tax avoidance facilitated by tax treaties. Several examples seem to confirm this. In the case of tax treaties, affected governments have several possibilities to address the problem. Depending on the circumstances, they can try to renegotiate a treaty, terminate a treaty (often within a notice period of less than a year), or introduce domestic anti-avoidance regulation. In March 2000, Indonesia announced that it was

[145] Uganda reports €14 million of inward FDI stock from the Netherlands at end-2010 (IMF, 2012a). The Mongolian Ministry of Economic Development registered almost €2 billion of inward FDI from the Netherlands in the period of 2005 to mid-2012. 98% of this amount is invested in the extractive sector (Mongolian Ministry of Economic Development, 2012) and probably consists of diverted FDI.

terminating its tax treaty with the Netherlands, because it wanted to cancel the reduction of profit tax on branches on extractive industry firms operating under a production-sharing contract. The Indonesian Ministry of Finance had tried to renegotiate the treaty, but found that its concerns were not sufficiently accommodated. In January 2002, Indonesia and the Netherlands signed a new tax treaty. In 2004, Indonesia ended its tax treaty with Mauritius because the treaty allowed firms to avoid domestic taxes. In 2011, the Mongolian government requested the Netherlands and Luxembourg to amend their tax treaties with Mongolia after it discovered that many inward investments were diverted via these countries. Apparently, the Dutch Ministry of Finance responded only after Mongolia threatened to end the treaty and did not accept all proposed changes. This is remarkable, as investments by Dutch firms in Mongolia that might be affected by the amendments are apparently limited. In November 2012, Mongolia decided to terminate the treaty, which will cease to be effective after 31 December 2013.

High income countries learn from experience as well. For example, since the Lamesa Holding case, in which a US private equity firm used a structure involving a Dutch SPE to avoided capital gains tax, Australia includes anti-avoidance provisions in new tax treaties to counter this type of structures. After the Prévost case, which allowed dividend withholding tax avoidance via a Dutch conduit, Canada sought to renegotiate the tax treaty with the Netherlands. Some tax treaty problems concern tax avoidance via SPEs in other countries. India has been threatening to end its tax treaty with Mauritius because of widespread treaty abuse. Argentina recently cancelled its tax treaties with Spain and Chile because of tax avoidance structures. All these examples show that governments were not fully aware of possibilities for tax avoidance when they concluded tax treaties.

## 6.8 Policy implications for donor countries

The largest adverse effects of Dutch corporate tax policy described in this thesis can be effectively addressed by some specific and relatively simple measures of the Dutch government. Therefore this section presents policy suggestions for the Netherlands. Some of these are also relevant for other donor countries. Without the cooperation of donor countries, policy options for developing countries are rather limited.[146] It is therefore crucial that donor countries fulfil their commitment to policy coherence for development in the important area of tax policy.

It should be acknowledged that the Netherlands has already taken important steps to enhance policy coherence. Cooperation between the Ministry of Foreign Affairs and the Ministry of Finance on international tax matters has substantially improved over the past years. In December 2012, the new Dutch Minister for Foreign Trade and Development Cooperation announced that the government would reassess some existing tax treaties

[146] For policy options for developing countries, see Section 5.6.

with developing countries. However, at the same time, the government continues to conclude new tax treaties with developing countries that are highly susceptible to abuse, as evidenced by the Netherlands-Ethiopia tax treaty signed in August 2012. Addressing incoherence between tax and development policies therefore remains extremely important.

The recommendations below focus on short-term actions that the Dutch government can implement quickly and will provide immediate benefits to some developing countries. In the medium and long term, more fundamental reforms of corporate tax policy are desirable to improve taxation of globally operating firms in a way that reduces the ever increasing complexity and mismatches of poorly national tax systems, which is also in the interest of multinationals themselves. In the short term, the Dutch government should do the following.

First, the Dutch government should not conclude new tax treaties with developing countries that can easily produce adverse effects. Expanding tax treaty networks is not a goal in itself. The Netherlands should only conclude new treaties with developing countries that can realistically expect to receive substantial additional investments from Dutch firms because of the treaty. It should refrain from concluding new tax treaties with countries that lack the necessary expertise to negotiate them. The Dutch government should allow all developing countries, including middle income countries, to protect their tax base by levy withholding taxes on interest, royalties, and management fees. If the main aim of a new tax treaty is to provide certainty to foreign investors, then it need not specify maximum withholding taxes. If a new treaty with a developing country is intended to promote investments into the Netherlands through reduced dividend withholding taxes, an asymmetric reduction should be proposed, limiting only the Dutch withholding tax.[147] The geographical scope of new tax treaties should be limited to the European part of the Netherlands and not extend to Bonaire, St. Eustatius, and Saba, as the new Netherlands-Ethiopia tax treaty does. These Caribbean islands, which are part of the Netherlands since 2010, have a special tax regime without a corporate income tax that creates a large risk of treaty abuse.

Second, the Netherlands must include anti-avoidance provisions, such as a limitation on benefits clause or a main purpose test,[148] in all its new and amended tax treaties. These anti-avoidance provisions should not be limited to dividends, as is currently the standard in Dutch tax treaties that include a main purpose test or limitation-on-benefits

[147] The Netherlands-Thailand tax treaty, concluded in 1975, provides a good example. This treaty limits the Dutch dividend withholding tax for intra-group dividends to 5%, but allows Thailand to levy a dividend withholding tax of 10-20%, depending on the type of enterprise and level of corporate income tax.

[148] Article 10:8 of the 2008 Netherlands-South Africa tax treaty provides an examples of a main purpose test for dividend withholding tax reductions: *"The provisions of this Article shall not apply if it was the main purpose or one of the main purposes of any person concerned with the creation or assignment of the shares or other rights in respect of which the dividend is paid to take advantage of this Article by means of that creation or assignment."* Limitation on benefits clauses are more extensive and more varied; Article 21 of the 2010 Netherlands-Japan tax treaty provides a useful example.

clause. The anti-avoidance provisions should also cover treaty benefits for interest, royalties, and capital gains. In the UK, this is standard policy for new tax treaties with all countries. The Netherlands should follow this example.

Third, the Dutch government should respond in a constructive way if a country wants to amend a tax treaty to address adverse effects. It should be fully cooperative to countries like Mongolia that seek to address obvious treaty abuse without touching the interests of real Dutch investors. Moreover, the Dutch government should offer other significantly affected developing countries – at least Indonesia, the Philippines, and Ghana – to amend the existing tax treaties by including anti-avoidance provisions or increasing maximum withholding tax rates.

Fourth, the Dutch tax authority should immediately stop concluding advance pricing agreements that allow payments deductible in other countries to remain effectively untaxed or taxed at a very low effective rate in the Netherlands. Thus, it should not allow deductions against royalty income beyond costs that have actually been incurred for acquiring trademarks and patents, for example. Note that this policy implication does not refer to APAs in general, it only applies to those agreements that provide opportunities for international tax arbitrage.

Fifth, to address profit shifting through royalties or interest, the Dutch government should prevent that firms can easily channel untaxed income through the Netherlands to low-tax jurisdictions. One option to do this is to disallow deduction of royalty and interest payments to recipients that are not subject to an effective tax on this income of, say, at least 10%. Another option would be to introduce a withholding tax on royalties and interest paid to specific jurisdictions. Many other countries have such anti-avoidance rules. A subject-to-tax clause or blacklisting approach fits well with the action plan of the European Commission against aggressive tax planning presented in December 2012. This is also relevant for other donor countries that do not levy royalty or interest withholding taxes, such as Sweden, that facilitate similar conduits.

The Dutch government can also take additional supportive measures of a more generic nature. These include enhancing tax information exchange with treaty partners about corporate taxpayers, ending exemptions from filing full unconsolidated annual accounts with the chamber of commerce for large companies, and requiring all companies to publicly report material investment positions, loans, and dividend, interest, and royalty payments on a country-by-country basis. The government should also enhance substance requirements for all companies that want to claim tax and investment treaty benefits, and not just for financing and licencing companies that want to conclude an advance pricing agreement with the tax authority.[149]

[149] Currently companies can even name Dutch legal persons as Dutch company directors. This leads to rather artificial constructions, for example in the case of Pluspetrol, an Argentinean oil firm with a Dutch parent company. This parent company has two directors: a Dutch trust company and a Dutch company that is controlled by the actual directors in Argentina.

Finally, it is remarkable that the Dutch government took several measures in recent years to protect its own tax revenues against profit shifting and withholding tax avoidance. First, after it was confronted in 2008 by aggressive tax avoidance of private equity funds, the Dutch government introduced anti-abuse legislation against profit shifting through interest payments. Second, the Netherlands included specific anti-abuse provisions in the new tax treaty with Bahrain, in 2008, and the amended treaty with Barbados, in 2009. These clauses are intended to prevent avoidance of Dutch withholding tax. Third, in 2012, Dutch anti-avoidance legislation came into effect to address avoidance of Dutch dividend withholding tax by foreign investors through profit distributions by cooperatives. These measures clearly demonstrate that the Dutch government, too, finds profit shifting and withholding tax avoidance abusive. It will therefore not only be more coherent with development policy, but also more consistent within tax policy itself, if the Dutch government makes a similar effort to address tax avoidance in developing countries facilitated by Dutch SPEs.

# Acronyms

| Acronym | Meaning |
|---|---|
| AfDB | African Development Bank |
| AFM | Dutch Authority for the Financial Markets |
| APA | Advance Pricing Agreement |
| BIS | Bank for international Settlements |
| BIT | Bilateral Investment Treaty |
| BOI | Belgian Development Bank |
| BRICSM | Brazil, Russian Federation, India, China, South Africa, and Mexico |
| CDIS | Coordinated Direct Investment Survey |
| CPI | Corruption Perception Index |
| DNB | De Nederlandsche Bank (Dutch Central Bank) |
| EIB | European Investment Bank |
| EU | European Union |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| GFA | Group Financing Activities (a special Dutch tax regime) |
| GNP | Gross National Product |
| HIPC | Heavily Indebted Poor Countries |
| HQ | Headquarters (of a multinational enterprise) |
| IBFD | International Bureau on Fiscal Documentation |
| IFC | International Finance Corporation |
| IMF | International Monetary Fund |
| ITC | International Tax Compact |
| LDC | Least Developed Country |
| LOB | Limitation on Benefits |
| MDG | Millennium Development Goal |
| MIC | Middle Income Country |
| MIGA | Multilateral Investment Guarantee Agency |
| ODA | Official Development Assistance |
| OECD | Organisation for Economic Cooperation and Development |
| PCD | Policy Coherence for Development |
| PRGF | Poverty Reduction and Growth Facility |
| PRSP | Poverty Reduction Strategy Paper |
| R&D | Research and Development |
| SADC | Southern African Development Community |
| SOMO | Centre for Research on Multinational Corporations |
| SPE | Special Purpose Entity |
| STR | Statutory Tax Rate |
| TI | Transparency International |
| UNCTAD | United Nations Conference on Trade and Development |
| USD | United States Dollar |
| VAT | Value Added Tax |
| WDI | World Development Indicators |
| WHT | Withholding Tax |

# Country codes

| Code | Country |
|---|---|
| AE | United Arab Emirates |
| AF | Afghanistan |
| AL | Albania |
| AM | Armenia |
| AO | Angola |
| AR | Argentina |
| AT | Austria |
| AU | Australia |
| AW | Aruba |
| AZ | Azerbaijan |
| BA | Bosnia and Herzegovina |
| BB | Barbados |
| BD | Bangladesh |
| BE | Belgium |
| BF | Burkina Faso |
| BG | Bulgaria |
| BH | Bahrain |
| BI | Burundi |
| BJ | Benin |
| BM | Bermuda |
| BN | Brunei Darussalam |
| BO | Bolivia |
| BR | Brazil |
| BS | Bahamas |
| BT | Bhutan |
| BW | Botswana |
| BY | Belarus |
| BZ | Belize |
| CA | Canada |
| CD | Congo, D.R. of |
| CG | Congo, Rep. of |
| CH | Switzerland |
| CI | Ivory Coast |
| CL | Chile |
| CM | Cameroon |
| CN | China |
| CO | Colombia |
| CR | Costa Rica |
| CU | Cuba |
| CV | Cape Verde |
| CW | Curacao |
| CY | Cyprus |
| CZ | Czech Republic |
| DE | Germany |

| Code | Country |
|---|---|
| DJ | Djibouti |
| DK | Denmark |
| DO | Dominican Republic |
| DZ | Algeria |
| EC | Ecuador |
| EE | Estonia |
| EG | Egypt |
| ER | Eritrea |
| ES | Spain |
| ET | Ethiopia |
| FI | Finland |
| FR | France |
| GA | Gabon |
| GE | Georgia |
| GG | Guernsey |
| GH | Ghana |
| GM | Gambia |
| GN | Guinea |
| GQ | Equatorial Guinea |
| GR | Greece |
| GT | Guatemala |
| GW | Guinea-Bissau |
| GY | Guyana |
| HK | Hong Kong |
| HN | Honduras |
| HR | Croatia |
| HT | Haiti |
| HU | Hungary |
| ID | Indonesia |
| IE | Ireland |
| IL | Israel |
| IM | Isle of Man |
| IN | India |
| IQ | Iraq |
| IR | Iran |
| IS | Iceland |
| IT | Italy |
| JE | Jersey |
| JM | Jamaica |
| JO | Jordan |
| JP | Japan |
| KE | Kenya |
| KG | Kyrgyz Republic |
| KH | Cambodia |

| Code | Country |
|---|---|
| KP | Korea, D.P.R. of |
| KR | Korea, Republic of |
| KW | Kuwait |
| KY | Cayman Islands |
| KZ | Kazakhstan |
| LA | Laos |
| LB | Lebanon |
| LI | Liechtenstein |
| LK | Sri Lanka |
| LR | Liberia |
| LS | Lesotho |
| LT | Lithuania |
| LU | Luxembourg |
| LV | Latvia |
| LY | Libya |
| MA | Morocco |
| MD | Moldova |
| ME | Montenegro |
| MG | Madagascar |
| MK | Macedonia |
| ML | Mali |
| MM | Myanmar |
| MN | Mongolia |
| MO | Macau |
| MR | Mauritania |
| MT | Malta |
| MU | Mauritius |
| MW | Malawi |
| MX | Mexico |
| MY | Malaysia |
| MZ | Mozambique |
| NA | Namibia |
| NE | Niger |
| NG | Nigeria |
| NI | Nicaragua |
| NL | Netherlands |
| NO | Norway |
| NP | Nepal |
| NZ | New Zealand |
| OM | Oman |
| PA | Panama |
| PE | Peru |
| PG | Papua New Guinea |
| PH | Philippines |

| Code | Country |
|---|---|
| PK | Pakistan |
| PL | Poland |
| PR | Puerto Rico |
| PT | Portugal |
| PY | Paraguay |
| QA | Qatar |
| RO | Romania |
| RS | Serbia |
| RU | Russian Federation |
| RW | Rwanda |
| SA | Saudi Arabia |
| SD | Sudan |
| SE | Sweden |
| SG | Singapore |
| SI | Slovenia |
| SK | Slovak Republic |
| SL | Sierra Leone |
| SN | Senegal |
| SO | Somalia |
| SR | Surinam |
| SV | El Salvador |
| SY | Syria |
| SZ | Swaziland |
| TD | Chad |
| TG | Togo |
| TH | Thailand |
| TJ | Tajikistan |
| TL | Timor Leste |
| TM | Turkmenistan |
| TN | Tunisia |
| TR | Turkey |
| TW | Taiwan |
| TZ | Tanzania |
| UA | Ukraine |
| UG | Uganda |
| UK | United Kingdom |
| US | United States |
| UY | Uruguay |
| UZ | Uzbekistan |
| VE | Venezuela |
| VG | British Virgin Islands |
| VI | US Virgin Islands |
| VN | Viet Nam |
| YE | Yemen |

| Code | Country |
|---|---|
| ZA | South Africa |
| ZM | Zambia |
| ZW | Zimbabwe |

# List of Dutch tax treaties

| Country | Year[a] | Anti-abuse[b] |
|---|---|---|
| *Low income* | | |
| Bangladesh | 1993 | |
| Ethiopia | 2012 | |
| Kyrgyz Rep.[c] | 1986 | |
| Malawi | 1969 | |
| Uganda | 2004 | |
| Zimbabwe | 1989 | |
| | | |
| *Lower-middle income* | | |
| Albania | 2004 | |
| Armenia | 2001 | M:D |
| Egypt | 1999 | M:D* |
| Georgia | 2002 | |
| Ghana | 2008 | |
| India | 1988 | |
| Indonesia | 1973 | |
| Moldova | 2000 | |
| Mongolia[g] | 2002 | |
| Morocco | 1977 | M:D |
| Nigeria | 1991 | |
| Pakistan | 1982 | |
| Philippines | 1989 | |
| Sri Lanka | 1982 | |
| Ukraine | 1995 | |
| Uzbekistan | 2001 | M:IR |
| Vietnam | 1995 | |
| Zambia | 1977 | |
| | | |
| *Upper-middle income (excl. EU)* | | |
| Argentina | 1996 | |
| Azerbaijan | 2008 | |
| Belarus | 1996 | |
| Bosnia and Herzegovina[e] | 1982 | |
| Brazil | 1990 | |
| China | 1987 | |
| Jordan | 2006 | M:D* |
| Kazakhstan | 1996 | M:IR |
| Macedonia | 1998 | M:D |
| Malaysia | 1988 | |
| Mexico | 1993 | M:IR |
| Montenegro[e] | 1982 | |
| Panama | 2010 | L:D |
| Russian Fed. | 1996 | |
| Serbia[c] | 1982 | |
| South Africa | 2005 | M:D |
| Suriname | 1975 | M:D |
| Taiwan | 2001 | |
| Thailand | 1975 | |
| Tunisia | 1995 | M:D* |
| Turkey | 1986 | |
| Turkmenistan[c] | 1986 | |
| Venezuela | 1991 | |
| | | |
| *European Union* | | |
| Austria | 1970 | |
| Belgium | 1933 | |
| Bulgaria | 1990 | |
| Czech Republic[d] | 1974 | |
| Denmark | 1957 | |
| Estonia | 1997 | M:D* |
| Finland | 1949 | |
| France | 1949 | |
| Germany | 1958 | |
| Greece | 1981 | |
| Hungary | 1986 | |
| Ireland | 1969 | |
| Italy | 1957 | |
| Latvia | 1994 | M:D |
| Lithuania | 1999 | M:D* |
| Luxembourg | 1968 | |
| Malta | 1977 | M:D* |
| Poland | 1979 | |
| Portugal | 1999 | |
| Romania | 1998 | M:D |
| Slovak Republic[d] | 1974 | |
| Slovenia | 2004 | |
| Spain | 1971 | |
| Sweden | 1952 | |
| United Kingdom | 1948 | M:DIR* |
| | | |
| *Other high income* | | |
| Aruba[f] | 1964 | |
| Australia | 1976 | |
| Bahrain | 2008 | L:D* |
| Barbados | 2006 | L:D* |
| Canada | 1957 | |
| Croatia | 2000 | M:D* |
| Curacao[f] | 1964 | |
| Hong Kong | 2010 | L:D* |
| Iceland | 1997 | |
| Israel | 1973 | |
| Japan | 1970 | L:DIRC |
| Korea, Rep. of | 1978 | |
| Kuwait | 2001 | |
| New Zealand | 1980 | |
| Norway | 1950 | |
| Oman | 2009 | |
| Qatar | 2008 | M:D* |
| Saudi Arabia | 2008 | |
| Singapore | 1971 | |
| St. Maarten[f] | 1964 | |
| Switzerland | 1951 | M:D |
| United Arab Emirates | 2007 | M:D* |
| United States | 1948 | L:DIRC |

Notes: List as of 1 January 2013. [a] Signature of the first full tax treaty with the Netherlands; [b] L: current (amended) treaty contains a limitation-on-benefits clause, M: current (amended) treaty contains a main purpose test; these anti-abuse clauses apply to dividends (D), interest and royalties (IR), and/or capital gains (C); * denotes a partner country that does not levy dividend withholding tax itself; [c] continued treaty with former Soviet Union; [d] continued treaty with former Czechoslovakia; [e] continued treaty with former Yugoslavia; [f] Tax Arrangement for the Kingdom (of the Netherlands); [g] the Netherlands-Mongolia treaty will end on 31 December 2013.

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# About the author

## Curriculum Vitae

Francis Weyzig obtained a master's degree in Development Studies from Radboud University Nijmegen and in Economics from the VU University Amsterdam. In 2004, he joined the Centre for Research on Multinational Corporations (SOMO), where he coordinated international research projects on corporate social responsibility, advised civil society organisations, and trained researchers in developing countries. Francis co-authored the ground-breaking SOMO report "The Netherlands: A tax haven?", published in 2006, and was one of the driving forces behind the establishment of Tax Justice NL, a network of Dutch organisations that advocate a fairer international tax system.

After the financial crisis broke out, he became policy advisor financial stability at the Dutch central bank (DNB), contributing to the bank's half-yearly financial stability reports and advising on measures to reduce the vulnerability of banks and pension funds. In 2012, Francis moved to the Sustainable Finance Lab (SFL), a Dutch network of academics and experts that promotes a more sustainable financial sector. He carried out this PhD research as a private project, separate from DNB and SFL.

Since 2013, Francis also works as an independent consultant on various economic and development issues, including taxation, finance, and corporate responsibility.

## Selected publications


Weyzig, F. (in press). Tax treaty shopping: Structural determinants of Foreign Direct Investment routed through the Netherlands. *International Tax and Public Finance.* DOI: 10.1007/s10797-012-9250-z.

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