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Advancing Tax Reform and the Taxation of Natural Resources

May 2011

Philip Daniel, Ruud De Mooij, Thornton Matheson, and Geerten Michielse

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Abbreviations and Acronyms

ACC	Allowance for corporate capital
ALG	Association of Local Governments
ASAs	Aviation service agreements
CHB	Closely held business
CO_2	Carbon dioxide
CPI	Consumer price index
CIT	Corporate Income Tax
EEA	European Economic Area
EFTA	European Free Trade Association
ETP	Electricity transfer price
ETS	Emissions Trading System
EU	European Union
EU27	All 27 members of the European Union
EUR	Euro (or when plural, euros)
FAD	IMF's Fiscal Affairs Department
FAT	Financial Activities Tax
FMI	Icelandic Financial Supervisory Authority
Group A	Residential and agricultural properties
Group C	Commercial properties
Gwh	Gigawatt hour
HUF	Hungarian forint
IRAP	Italian regional production tax
ISK	Icelandic króna (or when plural, Icelandic krónur)
LG	Local government
MIW	Minimum imputed wages
MW/Mwh	Megawatt/Megawatt hour
OECD	Organization for Economic Co-operation and Development
NOx	Nitrogen Oxide
PIT	Personal Income Tax
PPA	Power purchase agreement
R&D	Research and development
RSK	Icelandic Revenue Authority
SO_2	Sulphur Dioxide
SSC	Social Security Contribution
TOP	Take or pay
UJV	Unincorporated joint venture
VAT	Value added tax
VIT	Variable income tax

PREFACE

In response to a request from the Minister of Finance, Mr. Steingrimur Sigfússon, for a further tax policy mission to advance the agenda set out in the previous FAD report, and also to review environmental taxation and the taxation of natural resources, a mission from the Fiscal Affairs Department (FAD) visited Reykjavik from March 21 to April 1, 2011. The mission comprised Messrs. Philip Daniel (Head) and Ruud De Mooij, Ms. Thornton Matheson (all FAD), and Mr. Geerten Michielse (External Expert). Mr. Franek Rozwadowski (IMF Resident Representative) and Ms. Edda Rós Karlsdóttir (IMF Resident Representative's Office) participated in meetings and supported the work of the mission. Ms. Oana Luca, Messrs. Alistair Watson and David Wentworth (all FAD) contributed to the report from headquarters.

At the Ministry of Finance, the mission met with Mr. Sigfússon; Mr. Guðmundur Arnason, Permanent Secretary; Mr. Indriði Thorlaksson, Tax Policy Advisor, Mr. Huginn Thorsteinsson, Political Advisor; Ms. Marianna Jónasdóttir, Director-General, Tax Department; Mr. Sigurður Guðmundsson, Deputy Director-General; and other staff of the Tax Department. At the Prime Minister's Office, the mission met with Mr. Sigurður Snævarr, Economic Advisor to the Prime Minister, and Mr. Páll Thórhallsson, Director-General. The mission also held discussions with staff of: the Ministry of Industry, Energy and Tourism, and of the National Energy Authority; the Ministry of Environment; Statistics Iceland; the Revenue Administration (RSK); and the Directorate of Tax Investigations.

The mission met with representatives of: the Association of Local Governments; the Icelandic Confederation of Labour (ASI); the Public Sector Union (BSRB) and the Teachers' Association (KÍ); the Iceland Chamber of Commerce; the Confederation of Icelandic Employers; the Icelandic Financial Services Association; the public accounting firms, Deloitte, Ernst & Young, KPMG, and PwC; Landsvirkjun (the National Energy Company); Reykjavik Energy (Orkuveita Reykjavikur, OR); Magma Energy Corporation and HS Orka; the Association of Aluminum Smelting Companies, Samál, and Century Aluminum Company.

The mission gained great benefit from discussions with members of two official committees: Steering Committee for the Formulation of a Comprehensive Energy Policy for Iceland; and the Committee appointed by the Prime Minister to address leasing arrangements for water and geothermal utilization rights owned by the Icelandic government.

The mission thanks Ms. Marianna Jónasdóttir, Ms. Elin Gudjonsdóttir, and Ms. Linda Gardarsdóttir for coordinating the work of the mission from the Ministry of Finance, in close collaboration with Ms. Edda Rós Karlsdóttir of the IMF. The mission acknowledges with gratitude the excellent cooperation and warm hospitality of the authorities.

EXECUTIVE SUMMARY

Iceland's government has made commendable progress in raising revenues to close its fiscal gap. In future, the emphasis should shift to the role of the tax system in promoting efficiency and stimulating growth. The recommendations of this report, including those on resource taxation, pursue these goals—always subject to the requirement for equity. This report builds on earlier technical assistance,[1] and presents a menu of options aimed at improving the efficiency of the tax system, and underpinning the authorities' broader social and economic objectives. The options include a particular focus on environmental tax measures, and on allocation, pricing, and taxation of Iceland's major hydropower and geothermal resources.

Reform of the current tax system

The priority given to fiscal consolidation since early 2009 has led to revenue increases from all segments of the tax system. It is now necessary to work more selectively, to broaden tax bases where possible, and to aim at rationalizing anomalies in the tax system—both legacy anomalies, and those that may have crept in during the response to the 2008 crisis.

For example, the need to stimulate growth and investment suggests some rebalancing of the tax effort. The eventual relaxation of foreign exchange controls will make taxation of mobile financial assets particularly difficult, and so further increases in tax on capital income are not advisable. This report proposes that the net wealth tax, which is effectively a second income tax on capital, be allowed to expire. To replace the revenues it provides, taxes should be increased on the less mobile components of its base: real estate (the local property tax) and high-income labor from a steepening of personal income tax (PIT) rates and the reallocation of income from capital to labor in closely held businesses (CHBs).

VAT reform would raise revenue without repressing growth. Reform should reduce or eliminate the gap between VAT rates, and remove non-standard exemptions, while lowering the top rate. While much of the burden of a consumption tax falls on labor, a portion of it also falls on wealth, making it a more efficient and equitable source of revenue than raising labor taxes. Since the revenue cost of the lower rate of VAT greatly exceeds the benefit to lower-income households of cheaper necessities, those households can be compensated for higher prices with refundable tax credits while raising net revenue. Iceland's main VAT rate, which is the highest in the OECD, could also be reduced to soften the price impact of an increased lower rate.

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[1] IMF FAD, *Iceland: Improving the Equity and Productivity of the Icelandic Tax System*, by Julio Escolano, Thornton Matheson, Christopher Heady, and Geerten Michielse, June 2010.

Measures to secure the tax base for the corporate income tax (CIT) are proposed. Most of these are technical in nature, but could make a significant difference to revenue over time while promoting efficiency in the system. These include: new rules on deductibility of interest, and taxation of interest paid abroad; treatment of intercompany dividends should be brought in line with standard European practice; temporary provisions introduced to enable tax neutral debt forgiveness in Iceland need to be extended to situations of debt conversion into equity. Above all, the report emphasizes the need to adopt financial accounting rules in determining profit for tax purposes.

Taxation of financial sector can be improved by a number of measures. The bank tax that was recently introduced should be maintained, but the rate and base should be modified to take account of the risks of a financial institution. The VAT treatment of financial institutions should be reformed, and a financial activity tax (FAT) introduced. The report proposes revisions to the tax treatment of derivatives.

There is ample room for further environmental tax reform measures. In an attempt to 'set prices right', Iceland has recently started to introduce environmentally related taxes, such as a carbon tax. From 2013, it will also participate in phase III of the EU Emissions Trading Scheme (ETS), thus charging a price for CO_2 emissions from its industries. There is scope to extend the use of corrective taxes to achieve environmental objectives. Following the experiences in Scandinavia, Iceland could consider new taxes on emissions from sulphur and nitrogen oxide, as well as taxes on landfill and incineration of waste. The carbon tax—introduced as a temporary tax—should be extended beyond 2012, its base should be broadened and the rate increased. Excises on fuels, electricity, and flight departures primarily serve fiscal objectives, but have positive side effects for the environment. The excise rates on petrol and diesel are still low compared to other European countries, leaving scope for higher rates. The electricity tax—also introduced as a temporary measure—should be extended and increased to comply with EU minimum standards, at least for households.

Taxation of natural resources

Iceland's key challenge is to increase value retained from use of its hydro and geothermal resources. Iceland's power was not priced on international markets, but by negotiations. There was no market for the power unless an energy-intensive project was constructed. That situation is changing, both with respect to pricing of electricity and in the enterprises that may come to Iceland to use power. There is, however, a legacy of long-term assurances properly given in the past that restrict what government can do today. Developments call for an integrated reconsideration of several institutions, including allocation of rights, market structure, ownership and taxation.

The report proposes: (1) a move in steps towards consolidation of publicly-owned resource rights into a single entity; (2) preparation for resource allocations by auctions and by

transparent comparison of proposals; (3) consolidation of resource assessments into packages of resource leases that are offered for investment projects; (4) linkage of the duration of leases to the flexibility of resource charges; (5) continuation of easily renewable long leases where a progressive resource charge is applied; (6) setting the base extraction levy in relation to anticipated environmental costs;(7) making additional extraction levy a bid variable at auctions; (8) introduction of a resource charge geared to the achieved results of a project; (9) permitting transferability of rights, to affiliates, upon sale or farm-in, and for third party financing, subject to regulatory safeguards.

Transparency of electricity prices and separation of accounts of entities in government-owned power companies is vital in creating a level playing field between government and privately owned power companies. Resource taxation should complement by use of an extraction levy on electricity sales, adjusting the levy in specific cases for the estimated environmental costs; and adopting a resource tax for access to rights, either by means of a cash flow tax surcharge scheme, or an allowance for corporate capital (ACC) scheme.

Sudden measures to increase fiscal levies on energy-intensive industries should be avoided; the way to extract rent for the nation is through competitive pricing of electricity. Existing incentives legislation can expire as scheduled, without replacement, and investment agreements can expire as agreed.

The petroleum fiscal terms can be revised to include an extraction levy at a modest flat rate, normal CIT, and a simple special hydrocarbon tax. A different model for special hydrocarbon tax is preferable (not geared to a profit ratio calculation), such as a cash flow surcharge or an ACC scheme.

The proposals in this report aim at efficiency and equity in the tax system, rather than revenue growth alone. Nevertheless, over the medium term, quantifiable measures could add 1.6 percent of GDP to revenues compared with a baseline of the tax system in early 2011.

I. INTRODUCTION

A. Tax Reform, Revenue Developments, and Short- to Medium-Term Strategy

1. **Iceland made various amendments to the tax system to alleviate its budget deficit**. The various measures will help raise the estimated revenue in 2011 by approximately ISK 8 billion, and by 2 percent of GDP between 2009 and 2011. Some of the measures were recommended in the 2010 FAD report. (See Box 1.)

2. **The government of Iceland's decisive actions to cut its fiscal deficit will increase primary revenues by 2 percent of GDP in 2011 compared with 2009.** This substantial increase is particularly impressive in light of the economic downturn suffered in the wake of Iceland's financial crisis. The IMF estimates that primary expenditures have also been reduced by about 5.1 percent of GDP over the same period.

3. **Looking ahead, the need to stimulate growth and investment suggests that higher taxes on capital income are not advisable**. The prospective relaxation of foreign exchange controls will make taxation of mobile financial assets particularly difficult. This report therefore proposes that the net wealth tax, which is effectively a second income tax on capital, be allowed to expire. To replace the 0.3 percent of GDP in revenues it provides, taxes should be increased on the less mobile components of its base: real estate (the local property tax) and high-income labor from a steepening of personal income tax rates and the reallocation of income from capital to labor in closely held businesses (CHBs). Increasing residential property taxes to the currently low maximum rate of 0.625 percent could alone provide an extra 0.7 percent of GDP in revenues for local governments. Steepening the PIT schedule as suggested in the 2010 report would yield an additional 0.25–0.4 percent of GDP. Broadening the SSC base through a reallocation of income from labor to capital in CHBs would allow for lower social security tax rates for all workers.

4. **A second means of raising income without repressing growth would be the reduction or elimination of the gap between VAT rates, and removal of non-standard exemptions, while lowering the top rate**. While much of the burden of a consumption tax falls on labor, a portion of it also falls on expected wealth, making it a broader-based and more efficient source of revenue than labor taxes. Since the revenue cost of the lower rate of VAT greatly exceeds the benefit to lower-income households of cheaper necessities, those households can be compensated for higher prices with refundable tax credits while raising net revenue.

Box 1. Recent Tax Reform Measures in Iceland

The ***PIT*** was lowered by 1.2 percent in all brackets to allow for a local government rate increase from 13.12 percent (2010) to 14.41 percent (2011). The combined tax rate on personal income remained approximately the same. By this measure, the Central Government shifted ISK 10.2 billion to the local government. Income tax brackets were adjusted by 4.7 percent.

The ***capital income tax rate*** was raised from 18 percent to 20 percent. The estimated revenue amounts to ISK 1.1 billion in 2011 (0.07 percent of GDP).

The **CIT** rate was also raised from 18 percent to 20 percent. The estimated revenue amounts to ISK 0.5 billion in 2011 (0.03 percent of GDP).

From 1 January 2011 the ***net wealth tax*** rate was raised to 1.5 percent and the threshold was reduced to ISK 75 million (for couples: ISK 100 million). The estimated revenue amounts to ISK 1.5 billion in 2011 (0.09 percent of GDP).

Also from 1 January 2011 the ***inheritance tax*** was raised from 5 percent to 10 percent. The tax free limit was raised from ISK 1 million to ISK 1.5 million. The estimated revenue amounts to ISK 1 billion in 2011 (0.06 percent of GDP).

The ***social security contribution*** (SSC) had already been raised twice since 2008 and there were no changes in 2011. The rate remained at 8.65 percent.

Apart from the raise in the top rate from 24.5 percent to 25.5 percent on 1 January 2010, no revenue-yielding measures have been taken in the ***value-added tax***.

In January 2011 the ***excise tax*** rates on alcohol were raised by 4 percent, on liquors by 1 percent, and on tobacco by 7 percent. In addition the excises in duty free stores were raised from 0 to 10 percent of the ad valorem excise duty on alcohol and from 0 to 40 percent of the ad valorem excise duty on tobacco. The estimated revenue in 2011 amounts to ISK 0.5 billion (0.03 percent of GDP). The excise on motor vehicles and the half-yearly fee on motor vehicles were reformed in 2010 and became effective in 2011. The estimated additional revenue in 2011 amounts to ISK 0.2 billion (0.01 percent of GDP).

The ***excise taxes*** on petrol and diesel oil have been raised repeatedly since December 2008. The excise tax was increased by 4 percent, considered as an inflation adjustment but providing a revenue increase since inflation is now lower than projected.

The ***carbon tax*** which was introduced in January 2010 and calculated as 50 percent of the ETS price in each category, was raised to 75 percent in 2011. The estimated revenue in 2011 amounts to ISK 1 billion (0.06 percent of GDP).

From 1 January 2011 a ***bank tax*** has been introduced on the liabilities of banks and other financial institutions. The tax rate is 0.041 percent, which will result in estimated revenue in 2011 of ISK 1 billion (0.06 percent of GDP).

5. **Concomitantly, Iceland's various excise taxes on food and non-alcoholic beverages could be eliminated in order to mitigate the effect of the higher VAT rate**. Iceland's main VAT rate, which is the highest in the OECD, could also be reduced to soften the price impact of an increased lower rate. Increasing the lower VAT rate to 14 percent, taxing non-standard exempt items at that rate, cutting the top VAT rate to 25 percent, and compensating bottom-quartile households for higher food, energy, and transportation prices would yield approximately 0.5 percent of GDP.

B. Natural Resources and Energy Sectors in Iceland

6. **Iceland hosts important natural resources: hydroelectric power, geothermal energy, possible offshore petroleum resources, and fisheries**. This report deals with the energy resources, but not with fisheries.

Hydropower and geothermal energy

7. **Iceland is well-endowed with water course resources.** The island's topography and heavy rainfall provide extensive resources for hydro electricity generation. The least-cost sites have already been developed, and there are legitimate environmental (and tourism) concerns about further development in some areas. Nevertheless, a substantial pipeline of possible projects remains available to power company investors. In principle, hydropower resources are not exhaustible; they can, however, deteriorate over the long term as a result of climate change or poor water management.

8. **Geothermal resources have been developed more recently**. Geothermal energy is associated with the seismic and volcanic activity due to Iceland's location on the mid-Atlantic ridge, at the junction of tectonic plates. The resulting superheated water generates electrical energy, in plants with lower capital costs than for hydropower, but higher operating costs. Total costs, including return to capital, are similar per megawatt hour (mwh) for both hydro and geothermal, although they will vary with location. The geothermal resource is not exhaustible in the sense conventional for petroleum and mineral resources, but the resource can be depleted by over-exploitation leading to cooling; the resource will regenerate, but only over long periods of time. Seismic or volcanic events can make geothermal resources vulnerable to sudden change. Iceland's households also make direct use of geothermal hot water.

Electricity in Iceland

9. **Iceland is a power-intensive economy** (Table 1). According to the International Energy Agency (IEA), production was almost 50 mwh per capita in 2008, six times the OECD average. Production was also higher than in other power-intensive economies, such as Scandinavia, Canada, and Switzerland. Electricity in Iceland is generated solely by

hydropower (73 percent) and geothermal energy (27 percent).[2] Only Norway also generates its power from renewable sources (hydropower), while other countries rely more on nuclear energy or power from fossil fuels.

Table 1. Electricity Production in a Selection of Countries, 2008

	Production	Percentage			
	Mwh/capita	Hydro/geothermal	Wind	Nuclear	Thermal
Iceland	49.7	100			
Denmark	6.5		19		81
Finland	16.4	22		30	47
Norway	24.9	98			2
Sweden	14.8	49	2	37	12
Canada	17.1	60		15	25
Switzerland	8.2	51		45	4

Source: IEA (2010).

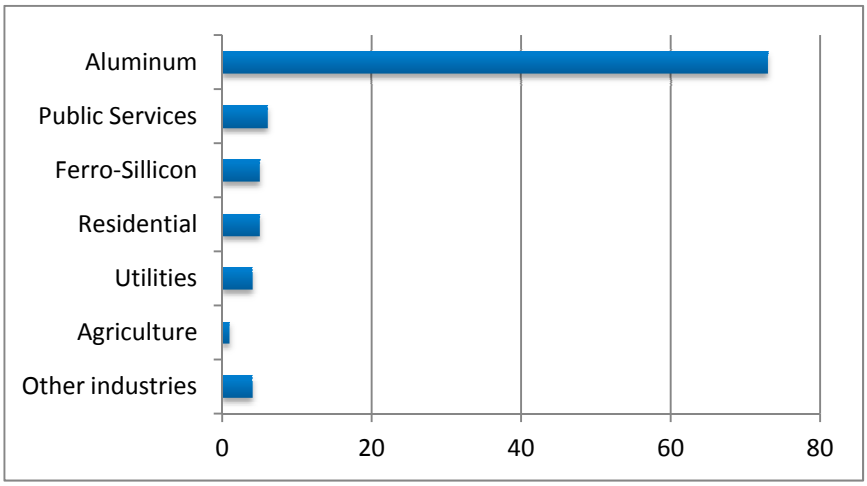
10. **Being geographically isolated, specific demand creates supply in the Icelandic power market**. On the supply side, a small number of companies produce the power. The biggest is Landsvirkjun, a state-owned company that generates 96 percent of all hydropower in Iceland and which has an overall electricity market share of 72 percent. Reykjavik Energy, jointly owned by municipalities and the state, generates geothermal power and heat and has a market share of 16 percent. It supplies electricity to one of the aluminum smelters as well as the retail market. The third company is HS Orka with a market share of 8 percent. It was recently taken over by Magma Energy, Sweden. The sole transmission operator in Iceland is Landsnet. Six firms operate in the distribution of electricity. Since 2008, Iceland has complied with the EU Directive 2003/54/EC regarding the internal market for electricity.[3]

11. **On the demand side, three large aluminum smelters consume approximately three quarters of the power in Iceland** (Figure 1). Recently, a number of other power-intensive industries have started to settle in Iceland, such as silicon-refining firms and data centers. Domestic households consume only 6 percent of electricity produced in Iceland. The markets for small consumers and energy-intensive industries are segmented and characterized by very different circumstances.

[2] Note that for geothermal energy, electricity accounts for only 39 percent of the total energy production: another 45 percent of energy (hot water) is used directly for space heating and the remaining 16 percent for other purposes (swimming pools, agriculture, and snow melting).

[3] This directive requires the separation of generation and distribution activity, and aims to create a competitive spot market for electricity in EU countries. The mission received representations that the smallness and special nature of the market in Iceland made it unsuited to application of this directive.

Figure 1. Electricity Use in Iceland by Sector



Source: Statistics Iceland.

12. **On the retail market, a handful of companies owned by municipalities supply power to domestic small-scale users**. Free choice for consumers and low switching costs have caused convergence of retail prices, reflecting the marginal production costs of the marginal producer that just breaks even. The other producers will then enjoy a surplus, a rent.

13. **Power supplied to smelters is usually specific for that purpose—the supplier and demander are bound to deal with each other**. The specificity of the contract enables parties to bargain over the rent generated by the agreement, including the resource rent. The bargaining strength of the smelter depends on its options to secure power and produce elsewhere in the world; that of the electricity company on its options to sell power to other firms. In the past, firms have concluded long-term contracts (up to 40 years) that included a link to the aluminum price. Some power companies used a cost-plus method to determine the price. The agreed prices turned out to be competitive internationally, probably leaving a substantial share of the rents with the buyers of the power. Electricity supplied to other power-intensive industries is also agreed in contracts, but of shorter duration and with different prices.

Petroleum resources

14. **Petroleum is not yet produced in Iceland, but potential exists in deep waters to the north of the country**. The prospective area of Iceland's continental shelf is known as Dreki, adjacent to the Jan Mayen ridge—a submerged micro-continent, geologically similar to neighboring hydrocarbon basins in Greenland and Norway exclusive economic zones. Located in water depths of 1,500 to 2,000 meters, and believed to lie at least 2,000 meters below the sea floor, these prospects are difficult and expensive to explore. Only large discoveries are likely to merit development, with current technology.

15. **Iceland held a first, unsuccessful licensing round in 2009. This followed adoption of petroleum legislation, including an act on the taxation of hydrocarbon extraction.** Companies apparently found the proposed fiscal terms (including a royalty rising steeply with the rate of production) unattractive in this challenging technical environment. The government is currently revising these terms, with the aim of holding a second licensing round later in 2011.

C. Outline of Report

16. **This report takes forward the analysis of FAD's 2010 tax policy report, and adds review of environmental taxation and the taxation of natural resource exploitation activities.** The proposals aim at efficiency and equity in the tax system, rather than revenue growth alone**.** Nevertheless, over the medium term, quantifiable measures could add 1.6 percent of GDP to revenues compared with a baseline of the tax system in early 2011 (Appendix 1). Analysis and proposals from the FAD 2010 report are repeated only when essential for the argument. This report covers: corporate income tax (chapter II); personal income tax and social security (chapter III); capital income and wealth taxation (chapter IV); value added tax and excises (chapter V); allocation of tax revenues to municipalities (chapter VI); taxation of the financial sector (chapter VII); environmental taxation (chapter VIII); and the taxation of natural resources (chapter IX). Appendices contain a summary of recommendations, and model simulations of fiscal regimes for hydropower and geothermal energy projects.

II. Corporate Income Tax

A. Capital Losses and Debt Forgiveness

17. **Currently capital losses are only recognized upon realization**. When recognized, they are treated as ordinary losses and can be offset against other income categories, including income arising from debt forgiveness. Capital losses on the sales of shares, however, can only be offset against capital gains on shares in the current tax period. The Income Tax Act does not allow for mark-to-market valuation of current assets. Many companies suffered significant capital losses during the crisis on their holdings of equity and other financial assets, so that they need to restructure their debt. The debt restructuring takes the form of debt write-offs, conversion into equity, or amendment of the terms of loan agreements.

18. **In 2010 a temporary provision was introduced in the Income Tax Act which provides for a tax deferral of taxable income from debt write-offs**. Debt write-offs in excess of operational losses can be carried forward until 2014. Any remainder of debt write-offs at the end of 2014 that is in excess of ISK 500 million is taxed in equal parts from 2015 through 2019. This relief is conditional upon the business having used all its depreciation

opportunities. Taxpayers are prohibited from distributing profit and engaging in business reorganizations. Debts between related parties are excluded from this relief.

Issues

19. **Financial accounting rules typically recognize capital gains and losses on current assets when they accrue**—e.g., by using a mark-to-market valuation or other fair value methods. The idea is that those assets can be easily made liquid. By applying this valuation rule, in combination with the tax treatment of capital losses as ordinary income, debt restructuring becomes neutral for tax purposes. Creditors will forgive debt only if the debtor cannot fulfill its liability because of accumulated losses. In that case, the debtor would recognize forgiveness of debt as taxable income, but would be able to absorb it with the accumulated tax losses. Any part of the forgiven debt in excess of losses would be taxable income.

20. **The temporary rule introduced provides for relief of legacy cases**, in which losses were incurred in the past that may not have resulted in tax losses eligible to offset the income from debt forgiveness. However, this rule excludes debt restructuring in the form of conversion into equity and changes in the term of the loan agreement. In cases of debt conversion into equity, the difference between the nominal value of the debt and the fair market value of the shares received is typically considered a capital gain, and subject to tax. As in the case of debt forgiveness, the incurred losses that caused the debt restructuring may not have resulted in tax losses eligible to offset the taxable capital gain. Thus, the temporary rule should have been extended to situations in which debt is converted into equity. The changes made in the term of the loan agreement typically do not give rise to a taxable event. The temporary rule therefore correctly excludes this form of debt restructuring.

Recommendations

- For companies, income tax assessment should follow the valuation provisions used in the financial accounting rules.

- The temporary provision regarding relief for debt forgiveness should be extended to cases in which debt restructuring has taken the form of conversion of debt into equity.

B. Interest Deductions

21. **Corporate acquisitions of Icelandic businesses by non-resident investors are typically debt financed**. Thus the target company—as much as possible—finances its own acquisition. As a consequence, Iceland is confronted with corporate tax base erosion.

Issues

22. **The debt is contracted either from a third party bank or through a special finance vehicle set up by the investor in a low tax jurisdiction**. The investor requires—as its new shareholder—the target company to distribute its retained earnings. These dividend receipts are used by the investor company to pay off the principal debt amount. If the retained earnings are insufficient, the target company is required to enter into a loan agreement itself to enable transfer of sufficient funds to its new parent company. The final result is that the full financial costs of the acquisition become a burden for the target company and erode its tax base.

Recommendation

- Limit debt-financed acquisitions by non-residents by disallowing deductibility of interest paid to creditor's resident in low tax jurisdictions, and by introduction of a thin capitalization rule (as discussed in the previous FAD report).

C. Interest Payments to Non-Residents

23. **The tax incidence of Iceland's withholding tax on interest payments often lies with the debtor** (because of contractual stipulations) and results in higher costs on borrowings from abroad.

Issues

24. **Currently Iceland levies a 20 percent withholding tax on interest payments to safeguard its corporate tax base**. If interest is paid to resident creditors the withholding tax is either credited against the income tax liability (corporations) or the capital income tax liability (individuals). If the creditor is a resident of a treaty country, the withholding tax is typically reduced to zero or a tax credit is provided in the country of residence.[4] If the creditor is a resident of a non-treaty country, the withholding tax is a final tax.

25. **In practice, the incidence of the withholding tax on interest payments to non-resident creditors often lies with the Icelandic debtor** (often because of contractual stipulations). Although it is common international practice that reduced treaty rates can be applied if the creditor provides a certificate of residence, creditors do not seem to have any incentive to provide such certificates. Nevertheless, it is recommended that a moderate withholding tax on interest (perhaps at 10 percent) remains to protect the corporate tax base.

[4] Currently Iceland has concluded double tax treaties with 36 countries, out of which 20 do not allow the country of source any withholding tax on interest. In most other cases a limited withholding tax of 10 percent is allowed.

Recommendation

- The 20 percent withholding tax on gross interest payments to corporate creditors and non-resident creditors should be reduced to 10 percent.

D. Intercompany Dividends

26. **The threshold of 10 percent shareholding for relief from double taxation hinders investments**. On the other hand, financial and other expenses incurred by the Icelandic parent company, related to foreign participation shares, might further erode the domestic tax base.

Issues

27. **The introduction of a threshold of 10 percent of the shareholding was aimed at distinguishing between portfolio and strategic business investments, so that only the latter would enjoy relief from double taxation**. An alternative requirement—in the form of a minimum acquisition price—was suggested in the 2010 FAD report. The alternative would ease the 10 percent restriction, though this report favors its elimination.

28. **A full exemption of dividends received by an Icelandic parent company raises the issue of where to allocate the expenses related to the investment**. In the Bosal case[5] the European Court of Justice decided that a Member State should—in compliance with the freedom of establishment—allow equal tax treatment regarding expenses made in relation to its investments in other companies irrespective of whether they are domestic or foreign. The Parent/Subsidiary-Directive[6] allows Member States to limit the exemption of dividends received to 95 percent. The—mostly financial—expenses related to the investment can be offset against the remaining taxable dividends.

Recommendations

- Consider abolishing the threshold of 10 percent shareholding and apply an exemption for all dividends received by Icelandic corporations.

- The dividend exemption should be limited to 95 percent of the amount received to allow for a small taxable portion to offset participation-related expenses.

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[5] Decision of the European Court of Justice in Case C-168/01 of 18 September 2003 (*Bosal*).

[6] Council Directive of 23 July 1990 on the Common System of Taxation Applicable in the Case of Parent Companies and Subsidiaries of Different Member States (90/435/EC).

E. Investment Incentives

29. **General investment incentives—that include some modest tax reductions—replaced the case-by-case special agreements from 2008 onwards for new projects**. Furthermore, a tax credit has been introduced to stimulate research and development activities and stimulate the competitiveness of innovation businesses.

Issues

30. **The general investment incentives apply to companies in all sectors (except the financial sector) planning to invest in a new project with a minimum turnover of ISK 300 million (approx. US$2.6 million) and creating at least 20 jobs**. The incentives can be obtained for investment in an area that covers almost the entire geographical area of Iceland, including areas close to Reykjavik. The tax incentives provide: (1) for a maximum corporate tax rate that is set at the rate applicable at the moment the agreement is concluded; (2) pro-rated depreciation in the first year in which the assets are placed into service; (3) full amortization of business assets;[7] (4) exemption from certain fees—industrial, market, and electrical safety charges; (5) 30 percent reduction of the property tax; (6) 20 percent reduction of the social security charge; and (7) an exemption for custom and excise duties on certain capital goods. These incentives are provided for a period of 10 years, or a maximum of 13 years after the investment agreement has been signed. The accumulated tax incentives cannot exceed 15 percent of the initial investment cost.[8] In addition to this regional aid scheme, some additional general incentives are applicable in the form of direct cash grants.[9] The incentives are granted in accordance with an agreement made between the investor and the Ministry of Industry.[10]

31. **The incentives are not well targeted to attract major investment projects that would not take place otherwise and that play a key role in the growth prospects of the Icelandic economy**. In principle, if incentives are to be available, they should be incorporated in the main tax legislation. This law expires at the end of 2013 and the government should allow it to lapse.[11]

32. **Since 2010 an income tax credit of 20 percent has been available for research and development costs**. The credit applies to R&D expenses of at least ISK 1 million

[7] The normal depreciation rules allow an amortization of 90 percent of the acquisition or production cost.

[8] For medium-sized enterprises the ceiling is increased to 25 percent and for small enterprises a ceiling of 35 percent applies.

[9] For training costs, small- and medium-sized enterprises, R&D projects, and environmental-related projects.

[10] The Ministry of Industry is advised by a committee of three members, one nominated by the Ministry of Finance.

[11] The treatment of major energy-intensive investments is discussed in Chapter IX.

(approx. US$8,700) annually and that are approved by Rannís—Icelandic Centre for Research, a state agency under the Ministry of Education, Science and Culture. The annual cost ceiling for the credit is ISK 100 million (approx. US$870,000), or ISK 150 million (approx. US$1.3 million) in case the R&D services are purchased. If the tax credit exceeds the income tax liability, the unused part is refundable in cash.

Recommendations

- Allow the general investment incentive package to lapse upon expiry.
- Keep the R & D credit under review, to monitor its effectiveness.

III. Taxes on Labor Income

A. Closely-Held Businesses

33. **The most salient policy issue for Iceland's dual income tax is misallocation of labor and capital income within closely-held businesses**. Because capital income is taxed at a lower rate than labor income under the dual income tax and is also not subject to social security charges, there is a strong incentive for private businesses to maximize their allocations to capital. Table 2 shows the distribution of wages and dividends for employees that receive both forms of income from the same corporation. As can be seen, many high-income employees receive dividends greatly in excess of their wage income.

34. **Iceland's dual income tax system traditionally allocated income to labor based on a non-indexed minimum imputed wage, which was widely recognized as too low.** In 2010, an allocation rule was introduced for closely held corporations requiring them to split distributions in excess of 20 percent of net capital 50/50 between labor and capital (the "20/50" rule). This arbitrary rule distorts the relative taxation of different business forms. It is unclear what distinction is used to separate closely-held businesses from widely-held businesses.

Issues

35. **The dual income tax system requires a special rule for allocating income from closely-held companies whose owners contribute both capital and labor**. In Iceland, this is done by stipulating that owner-employees attribute to themselves an "arm's length wage." Minimum imputed wages (MIW) for owner-employees in different sectors and sizes of companies are published each year by the Finance Ministry. Since 2007 the minimum imputed wages have not been changed or indexed to inflation, except that for tax year 2010 an additional high-wage category was introduced for members of the bank resolution committees.

Table 2. Individual Taxpayers Receiving Wages and Dividend Payments from Same Corporation (2009)

Per capita dividends (ISK mns.)	Number of Employees	Total Wages	Total Dividends	Per capita wages	Per capita dividends	Wage share (Percent)	Dividend share (Percent)
0 – 1	1,106	4,340,860,144	533,006,890	3,924,828	481,923	89.1	10.9
1 – 2	657	2,794,500,562	1,073,143,448	4,253,426	1,633,399	72.3	27.7
2 – 3	423	1,773,066,655	1,101,554,284	4,191,647	2,604,147	61.7	38.3
3 – 4	245	1,130,199,401	874,939,998	4,613,059	3,571,184	56.4	43.6
4 – 5	243	1,084,762,409	1,152,617,328	4,464,043	4,743,281	48.5	51.5
5 – 6	130	556,519,164	732,734,149	4,280,917	5,636,417	43.2	56.8
6 – 7	107	549,381,797	706,781,091	5,134,409	6,605,431	43.7	56.3
7 – 8	126	838,949,269	953,347,683	6,658,328	7,566,251	46.8	53.2
8 – 9	71	299,110,422	617,045,455	4,212,823	8,690,781	32.6	67.4
9 – 10	96	480,051,688	943,481,409	5,000,538	9,827,931	33.7	66.3
10 – 20	345	2,007,665,425	4,661,740,520	5,819,320	13,512,291	30.1	69.9
20 – 30	107	557,510,307	2,512,545,009	5,210,377	23,481,729	18.2	81.8
30 – 40	51	267,998,048	1,699,855,220	5,254,864	33,330,495	13.6	86.4
40 – 50	14	79,740,647	585,566,356	5,695,761	41,826,168	12.0	88.0
50 – 60	30	162,502,063	1,583,660,415	5,416,735	52,788,681	9.3	90.7
60 – 70	10	54,630,794	620,860,449	5,463,079	62,086,045	8.1	91.9
70 – 80	5	24,240,184	356,139,854	4,848,037	71,227,971	6.4	93.6
80 – 90	7	29,655,516	589,444,445	4,236,502	84,206,349	4.8	95.2
90 – 100	7	36,445,438	661,824,188	5,206,491	94,546,313	5.2	94.8
> 100	18	97,532,001	3,589,994,035	5,418,445	199,444,113	2.6	97.4
Total	**3,798**	**17,165,321,934**	**25,550,282,226**				

Source: Icelandic Revenue Directorate.

36. **The minimum imputed wage applies to sole proprietorships, partnerships, and closely-held businesses.** In all three types of business, principals must allocate to themselves the appropriate minimum wage, upon which they pay PIT and the 8.65 percent social security charge (SSC). In sole proprietorships, the remainder of earnings is taxed under the progressive PIT schedule, but is not subject to the SSC. The profit of partnerships after the MIW deduction is taxed at the special partnership rate of 36 percent (= 0.20 + (1-0.20)*0.20). For closely held corporations, the 20/50 rule applies according to which, after deduction of (minimum) wages, 20 percent of net capital may be paid out as capital income; further distributions are allocated 50/50 between labor and capital. It is not clear from existing law and regulation whether the SSC is levied on the labor share of this allocation, though the IRD does not include this labor share in the SSC base. A comparison of total tax burden between the various legal forms of businesses is provided in Table 3.

Table 3. Distribution of Tax Under the Dual Income Tax

	Sole Proprietor	Partnership	Closely-held Business
Total Income (in ISK)			
- Employment Income	(MIW) 10,000,000 30,000,000	(MIW) 10,000,000	(MIW) 10,000,000 (50/50-allocation) 14,400,000
- Capital Income		30,000,000	(20 percent capital)[1] 1,200,000 (50/50-allocation)14,400,000
Taxation (in ISK)			
Income Tax	17,390,667	3,527,667	10,181,907
Partnership Tax (36 percent)		10,800,000	
Corporate Income Tax (20 percent)			6,000,000
Capital Income Tax (20 percent)			3,120,000
Social Security Contribution (8,65 percent)[12]	865,000	865,000	865,000
Deductible Cost (20/50 rule)			-2,880,000
Total Burden	18,255,667	15,192,667	17,286,907

Source: IMF staff calculations; and Iceland Finance Ministry.

1/ The closely-held business in this example has ISK 6 million capital (approx. US$52,000).

37. **Under current rules, partnerships receive the most favorable tax treatment, followed by corporations and then sole proprietorships** (Table 3). Prior to the introduction of the 20/50 law, corporations were most tax-favored, since they offered the option of retained earnings on which the capital income tax could be deferred, but the introduction of the splitting rule produced a wave of conversions from corporations to partnerships. Ideally, the allocation of capital and labor income should be the same for sole proprietorships, partnerships and private corporations, so that the form of business does not depend on tax considerations. At least, however, the method should be unified for partnerships and corporations, since sole proprietorships have the option of adopting one of these forms if they have significant capital assets.

38. **The allocation of income in private businesses should be done in as objective a manner as possible**. Because the returns to labor of the self-employed are highly variable according to skill and effort, and because for some types of labor there is no corresponding arms-length wage, the most objective manner of allocating income is on the basis of capital. Icelandic authorities confirm that even small private businesses in Iceland would have little difficulty measuring their capital assets. The 20/50 method was adopted as a compromise between the MIW and a capital-based allocation method because the latter was opposed by private businesses with labor-intensive firms.

[12] Social Security Contribution (and mandatory pension premium) is due on the minimum imputed wages.

39. **In addition to being more accurate, a capital-based allocation method would be more equitable to salaried employees, who must pay higher SSC contributions due to the lower SSC base of the self-employed**. However, if Iceland retains its MIW-based allocation method, it should at least reset minimum wages to more reasonable levels based on a comprehensive study of private businesses, measuring their labor income by a capital-based allocation method. The MIW should then be indexed each year according to the Icelandic wage index. To keep abreast of technological changes affecting labor productivity, the MIW should be reviewed every several years. If the 20/50 splitting rule is also retained, the law should be made clear on whether the 50 percent allocation to labor is subject to the 8.65 percent social security charge.

40. **Currently Icelandic tax law does not have a clear definition of closely-held businesses other than any business in which employees control the company**. The result is that even widely-held companies in which shareholders are acting as employees may also be included in the 20/50 rule. Other Nordic countries having a dual income tax system are dealing with the same issue. Other countries have decided to define substantial shareholders of companies to establish tax neutrality with respect to various legal forms available for doing business.[13] In general, closely held firms are those in which a small group of shareholders control the operating and managerial policies of the firm. Table 4 provides an overview of definitions:

Table 4. Definitions of Closely-held Companies

Country	Definition
Norway	More than 2/3 is owned by shareholders who are active in the daily operation of the business; a shareholder is deemed to be 'active' if (s)he is working > 300 hours/annum in the business.
Finland	All companies that are not registered on the stock exchange.
Sweden	Companies where more than 50 percent of the ownership/voting rights is concentrated upon less than five owners.
Denmark	No definition found.
Germany	A shareholder is deemed to have a substantial interest if (s)he owns at least 1 percent of the shares (directly or indirectly) for the last five years.
Netherlands	A shareholder (with or without associated persons) is deemed to be a dominant shareholder for tax purposes if (s)he owns at least 5 percent of the shares of a (closely-held) company.

[13] Thus the rules with respect to the taxation of substantial shareholdings in Germany and the Netherlands mirror the tax position of a sole proprietorship.

Recommendations

- Capital income allocation rules should be the same for partnerships and closely-held corporations.

- Income should be allocated between labor and capital within closely held businesses according to the net or gross assets method.

    - However, if the minimum wage system and/or the 20/50 split is retained, minimum wages should be reset using a comprehensive study that employs the gross or net assets method to measure labor income, and the minimum wage should be annually indexed.

- The government should clarify whether SSC charges apply to the 50 percent labor allocation.

- A definition of closely-held business should be included in the income tax act, based upon the number of active shareholders and their joint shareholding.

B. Personal Income Tax Rates

41. **Most of the progressivity of the Icelandic system derives from its high basic allowance, which provides for a smoothly increasing average tax rate over most of the wage spectrum.** The 2010 FAD report pointed out that, compared to other Nordic countries, Iceland's personal income tax (PIT) has a relatively high basic allowance (28 percent of the average wage), a high initial tax rate (37.31 percent), and a low top marginal rate (46.21 percent). However, the marginal tax rate schedule faced by low-income Icelanders is far from smooth: Workers in the lowest quintile who increase their earnings face a "tax cliff" of almost 40 percentage points in their tax rate, which creates a disincentive to participate in the formal labor force. Informality is generally not considered a serious problem in Iceland, and labor force participation rates are very high at 81 percent. Nonetheless, both government and union officials expressed concern about the PIT structure creating a "poverty trap" for lower-income workers in Iceland.

Issues

42. **It is important not to exacerbate the existing PIT "cliff" for low-income workers**. The initial 37.31 percent bracket is very narrow, containing only about 14,500 taxpayers in 2011; expansion of the basic credit, under some proposals, would cut this number by more than half. Combined with the mortgage and child tax credits, this would effectively raise the initial marginal PIT rate to 40.21 percent. The 2010 FAD report, by contrast, stated that in order to reduce the low-income tax cliff, the Icelandic government should refrain from further increases in the basic PIT allowance and allow it to erode with inflation; it also proposed that the initial tax rate should be lowered over the medium term, once budgetary

pressures subside. Alternatively, the government could currently reduce both the initial tax rate and the basic tax credit in a revenue-neutral manner.

43. **The two PIT surcharges introduced in 2010 do not provide for much progressivity at the higher end of the wage distribution.** The first 2.9 percent surcharge applies to most taxpayers with positive tax liabilities, while the second surcharge applied to taxpayers in the top decile of the income distribution is fairly modest in size at 6 percent. The top marginal PIT rate in Iceland is low relative to that of other Nordic countries, which have an average top marginal rate of 52 percent (OECD, 2010). However, compulsory non-tax payments in Iceland are higher than elsewhere in the region: Icelandic workers are required to pay at least 12 percent of their income before tax into private pension funds, while elsewhere in the region a larger share of pensions are funded through explicit taxes on labor income. This has the effect of making Iceland's labor income taxes appear relatively low. Moreover, the withdrawal of mortgage interest and child tax credits often raises the marginal PIT rate on above-average wages above 50 percent.

44. **Nonetheless, the 2010 FAD report saw some room for increased marginal tax rates on higher-income earners.** It recommended that the two surcharges be replaced either with a single 10 percent surcharge levied on incomes above ISK 4.5 million (approximately the average private-sector wage in 2010), or two 5 percent surcharges levied at ISK 3 million and ISK 6 million. Both of these measures would increase both revenue and progressivity, with the 10 percent surcharge being somewhat more progressive and the dual 5 percent surcharges raising somewhat more revenue (0.4 percent vs. 0.25 percent of GDP).

Recommendations

- Do not increase the basic tax credit for the PIT. Consider lowering both the tax credit and the initial PIT rate in a revenue-neutral manner.

- Eliminate the first 2.9 percent surcharge and replace the second 6 percent surcharge with a single 10 percent surcharge levied on above-average incomes.

C. Social Security Contributions

45. **In 2009 and 2010, social security contributions (SSC) levied on labor income were increased from 5.34 percent to 8.65 percent in order to pay for an expected rise in unemployment**. The actual rise in unemployment, which peaked at 9.3 percent in early 2010 but has since fallen more than 2 points, was less than anticipated. The authorities are, therefore, contemplating a reduction in the social security contribution rate to 6.8 percent.

Issues

46. **The 2010 FAD report recommended reducing social security taxes as labor market conditions improved to lower wage costs and stimulate employment**. The

prospective reduction in SSCs is thus a positive development. Broadening the SSC tax base by reallocating capital income to labor within closely held businesses would likely permit a further reduction in SSC charges. Alternatively, the SSC base per worker could be capped at a certain level for both salaried and self-employed workers, to the extent that the corresponding benefits do not increase with salary level.

Recommendations

- Reduce the rate of social security contributions as much as possible, given expected unemployment and any increase in the SSC base.
- Consider capping the base of the SSC at a certain level of earnings for both salaried and self-employed workers.

D. Pension Contributions

47. **There is currently no absolute cap on how much Icelanders may contribute to tax-exempt pension plans**. During the boom years prior to the crisis, high-income individuals thus made very large contributions to tax-exempt plans, thereby reducing the capital income tax base. Although high contribution levels are less likely under current economic conditions, Iceland may wish to consider imposing either a limit on tax deductions for voluntary pension contributions in excess of a certain amount, or a surtax on benefit withdrawals above a certain level.

Issues

48. **Countries often limit the absolute amount that may be allocated to tax-preferred investment vehicles, such as pension funds, in order to protect their capital income tax base while still providing a tax incentive for adequate pension savings**. Iceland restricts employee contributions to "second pillar" mandatory pension savings to 4 percent of salary, and while the minimum employer contribution to these funds is 8 percent, it may be higher according to contract. Contributions to "third pillar" voluntary plans are limited to 4 percent of salary for employees and 2 percent for employers. Iceland also places certain restrictions on savings vehicles to qualify as pension plans—e.g., pension savings cannot be withdrawn until the age of 60 and must pay out over a period of at least seven years.

49. **Although some countries allow unlimited tax-deductible contributions and retirement withdrawals from pension funds, many OECD countries impose an absolute limit on contributions, withdrawals, or both**. Annual contribution limits are often age-dependent, with higher contributions allowed by individuals approaching retirement age. Some countries, such as Spain, allow unused contribution amounts to be carried forward for a limited number of years. Benefit limits are generally set as a maximum amount that may be withdrawn at regular income tax rates, which amount may vary according to whether it is

taken as a lump sum or annuity. Alternatively, the replacement rate of annual salary may be capped, as for defined benefit plans in the Netherlands and Canada. Withdrawals in excess of the benefit limit are often subject to a penalty rate of taxation, as in Britain, Australia, and Ireland.

Recommendation

- Consider placing an absolute cap on annual or lifetime tax deductions for voluntary pension contributions.

IV. Capital Income and Wealth Taxes

50. **Since 2008, taxes on capital and wealth have increased sharply in Iceland**. The capital income tax rate was doubled in three steps from 10 percent to 20 percent. A broad net wealth tax covering financial assets, business assets and real estate was introduced in 2010 at a 1.25 percent rate; the rate was increased to 1.5 percent in 2011, and the threshold was lowered from ISK 90 million to ISK 75 million (US$625,000) for single persons and from ISK 120 million to ISK 100 million (US$833,000) for couples. Projected revenues from the net wealth tax are approximately 0.3 percent of GDP per year.

Issues

51. **As Iceland reintegrates with the international economy, heavy taxation of capital income will likely become more difficult and deleterious to growth**. At the onset of the financial crisis, Iceland's tax rates on corporate and capital income—15 percent and 10 percent, respectively—were quite low by international standards, allowing them to be raised sharply without undue disruption even in the midst of a severe economic downturn. The imposition of foreign exchange controls that resulted from the crisis moreover trapped both domestic and foreign capital within Iceland, greatly reducing the mobility of the capital tax base. As these controls are relaxed in the coming years, however, this base—in particular, wealth held in the form of cash and liquid financial securities—is likely to become much more sensitive to the tax burden.

52. **As noted in the 2010 report, the layering of Iceland's net wealth tax on top of the capital income tax can result in very high marginal rates on capital income, particularly in the presence of inflation**. For an investor earning a 7.5 percent real return on assets, the 1.5 percent net wealth tax effectively doubles the 20 percent capital income tax to 40 percent; in the presence of 3 percent inflation, however, the tax on the real return rises to 67 percent. It is unlikely that investors would be willing to pay such high rates if they have other alternatives. In particular, wealthy Icelandic taxpayers are likely to leverage their assets to avoid the net wealth tax or, if the assets are liquid, move them offshore.

53. **It is therefore recommended that, as Iceland liberates its foreign exchange controls, the government allows the net wealth tax to expire.** This policy is preferable to a reduction in the rate of the capital income tax for two reasons: First, since it is levied on gross income, the capital income tax does not create an incentive to increase financial leverage in the same manner as the net wealth tax. Second, unlike the capital income tax, the net wealth tax requires valuation of private companies and other illiquid assets, which can be difficult. If a taxpayer's assets do not generate current income, then the net wealth tax can also pose illiquidity problems, although high-net-worth taxpayers likely have sufficient liquid assets to pay the tax.

54. **To replace the 0.3 percent of GDP that the tax generates in revenues, the less mobile components of the wealth tax base can be taxed more heavily**. Specifically, taxes should be increased on real property (discussed in Chapter VI) and the labor income of closely-held businesses (Chapter III). These bases should be both progressive and much less elastic with respect to tax rates than the liquid financial assets also included in the net wealth tax base, so the substitute taxes should be less distortive.

Recommendation

- Allow the net wealth tax to expire, and replace the revenues with a combination of higher property taxes and a broader and more progressive personal income tax.

V. The Value-Added Tax and Excises on Alcohol, Tobacco, and Food

A. Value-Added Tax

55. **Iceland levies a dual-rate VAT whose main rate of 25.5 percent is the highest in the OECD.** The lower rate of 7 percent applies to food and non-alcoholic beverages, heating energy, hotels and restaurants, and printed materials, music, and radio licenses. Exemptions not included in the EU VAT directive include sporting events, public transportation, travel agencies, burials, and authors and composers' income.

Issues

56. **As discussed in the 2010 report, dual rate VAT systems introduce economic distortions, complicate administration, and lose revenue.** The justification for having a lower VAT rate on necessities is usually to support the purchasing power of the poor, who are likely to spend a larger portion of their income on food, etc. However, analysis of Icelandic household expenditures indicated that the difference between the share of expenditures on food and other necessities varies little by income quartile. The majority of the benefits of the lower VAT rate thus accrue to non-poor households. The report, therefore, recommended that the lower rate of VAT be eliminated or at least raised to 14 percent, while compensating low-income households for the price increase through direct transfers.

Concomitantly, the report recommended eliminating non-standard exemptions, such as passenger transport, and using some of the revenue to subsidize public transport.

57. **Government and private sector officials all recognize the inefficiency and distortions created by the dual VAT rate, but cite the political sensitivity of increasing the lower rate.** In addition to the effect on lower-income households' purchasing power, any increase in the consumer price index resulting from an increase in VAT rates translates is added to the principal balance on indexed loans, thereby increasing Iceland's already heavy private debt burden.

58. **This report, therefore, recommends that the government approach a single-rate VAT in two steps:** First, it should increase the lower rate back to 14 percent and tax non-standard exempt items (public transport, sports and cultural events, and travel agents) at that rate. At the same time, the top rate on the VAT should be lowered from 25.5 percent to 25 percent, and bottom-quartile households could be compensated for higher food, heating, and transport costs. The net impact of these measures would be a revenue increase of 0.5 percent of GDP and a 1.3 percent increase in the price level (Table 5). Second, it could move to a unified single VAT rate on all items of approximately 20 percent on a revenue neutral basis. The cost to compensate bottom-quartile households for this step would be an additional 0.1 percent of GDP, and the lower unified rate would reduce the price level by approximately 2.6 percent.[14]

Table 5. Revenue Impact of Proposed VAT Changes

VAT Policy Option	Revenue/GDP	Price Level Change
Phase I		
Increase lower rate to 14%	0.6%	1.4%
Increase exempt items to 14%	0.1%	0.3%
Lower top rate to 25%	-0.1%	-0.4%
Compensate LIHs	-0.1%	-
Total Effect	0.5%	1.3%
Phase II		
Increase lower rate to 20%	0.7%	1.5%
Lower top rate to 20%	-0.6%	-4.1%
Compensate LIHs	-0.1%	-
Total effect	0.0%	-2.6%

Source: Statistics Iceland data and IMF staff calculations.

[14] These values may differ from subsequent official estimates. They are probably conservative insofar as they are based on Iceland's survey of household expenditures, which does not capture all domestic consumption—for example, local government and tourism sectors are not covered.

59. **There are at least two possible means of administering VAT rebates: Lower-income households could apply for a VAT rebate, or the government could offer an additional refundable tax credit through the income tax.** Granting a VAT rebate to unregistered VAT payers would likely run afoul of the EU VAT directive. Reimbursement in the form of an income tax credit would in any event be a simpler way to offer a means-tested credit, since the income tax administration already tracks household income and assets. If desired, the government could also soften the impact of a VAT-induced price increase on debt levels through a temporarily higher mortgage interest or debt principal allowance.

Recommendations

Short term

- Increase the lower rate of the VAT to 14 percent and tax non-standard exemptions at the lower rate.
- Lower the main rate of the VAT to 25 percent.
- Compensate lower-income households for higher costs of necessities through refundable income tax credits.

Medium term

- Tax all items at a unified rate of approximately 20 percent.

B. Excises on Tobacco, Alcohol, and Food

60. **Excises on alcohol and tobacco in Iceland are high by European standards and similar to those in the Scandinavian countries.** Since 2008, alcohol excise rates have risen by between 44 and 48 percent and the excise on cigarettes by 52 percent. Despite a rise in the CPI of 30 percent, this implies quite a sharp increase in real terms. Iceland also charges excise rates on a large number of food products. Excises are either ad-valorem or specific and then measured by ISK per kilogram or per liter. The list of products to which these rates apply originates from 1987. A number of products are related to the sugar content, but not all and not in a consistent way. In 2010, rates have been doubled compared to the original act.

Issue

61. **Excise rates seem generally appropriate, except for food excises.** The excise rates on 'sin' products are a matter of national preferences, trading off health arguments, externalities, distortions, and the risks of tax evasion. The rationale for the long list of excises on food products is not clear though. It seems that products containing sugar appear frequently on the list, but not in a consistent manner. For instance, mineral water contains no sugar but is charged an excise of ISK 16 per liter; the highest rate of ISK 160 per kilo is

charged on dried fruit for making broth; cane sugar is charged only ISK 60 per kilo. The absence of a clear rationale for these taxes puts doubt on their justification. This is all the more so since food falls under the reduced VAT rate. Hence, there is a situation in which food products are on the one hand tax-favored through a reduced VAT rate and, on the other hand, tax penalized by a list of specific excises on food products. The obvious reform would be to eliminate both the reduced VAT rate on food products and all food excises. This would improve transparency and simplicity and eliminate distortions in consumption choices.

Recommendation

- Eliminate the excises on food products as part of a broader reform of the VAT.

VI. TAXATION FOR MUNICIPALITIES: THE PROPERTY TAX

62. **The property tax is an attractive option for small open economies due to the immobility of the base (which also recommends it an ideal local government tax).** Base inelasticity makes it less distortive than most other taxes and thus less likely to deter growth. Property taxes are also usually progressive, since higher-income individuals tend to own more property. For these reasons, this report recommends substituting higher property taxation for the net wealth tax. Because, as is typical, the property tax is levied by local governments (LGs) in Iceland, increasing its productivity will require reassessing the overall division of revenues between central and local governments.

Issues

63. **Property taxes in Iceland are imposed by LGs, subject to central government rate caps of 0.625 percent on residential and agricultural properties ("Group A") and 1.65 percent on commercial properties[15] ("Group C").** As noted in the 2010 report, Iceland's property tax revenue, at 1.8 percent of GDP, is high relative to that of other Nordic countries, but lower than that of some other OECD countries including the United States, Britain, and Canada. The 0.625 percent cap on residential properties is low and should be raised to at least 1 percent.[16]

64. **Most LGs currently raise the maximum or close to the maximum revenue permitted from commercial properties, but some raise substantially less than the maximum from residential properties.** Association of Local Governments (ALG) data

[15] Government-owned properties are subject to a flat 1.32 percent tax rate.

[16] Given that property taxes are highly visible, and Icelandic authorities report that LGs face political pressure to keep rates as low as possible, it is indeed questionable whether a rate cap on residential property is needed.

show that 97 percent of potential Group C revenue is currently collected. The picture is much different for Group A properties, however, where only 44 percent of potential revenue is collected, even given the lower cap on Group A tax rates. Exploitation of the Group A property tax varies considerably by region: Whereas many rural jurisdictions impose rates at or close to the maximum, most jurisdictions in the Reykjavik area tend have substantially lower rates. ALG statistics show that increasing local property taxes to the current maximum rate of 0.625 percent would generate close to 0.7 percent of GDP in revenues, much of it in the Reykjavik area. Raising local residential property taxes to a minimum of 0.5 percent would raise about 4.5 percent of GDP.

65. **As noted in the 2010 report, it is politically difficult to increase tax rates on high-value urban housing that, unlike commercial property, may generate no income with which to pay the tax.** The current high levels of housing debt also create resistance to higher property taxes in the near term. The 2010 report presented the option of deferring a portion of the property tax until the property is sold, although this would generate little near-term revenue. Another way to increase the productivity of the property tax would be for the central government to set minimum as well as a maximum property tax rates.

66. **Increasing the productivity of the property tax would necessitate a renegotiation of the division of revenues between central and local governments.** Currently, PIT revenue constitutes more than three quarters of LG tax revenue, which in turn accounts for just under three quarters of their total income (12.6 percent of GDP). Property tax revenue accounts for an additional 20 percent of LG tax revenue. Transfers from the central government account for another 10 percent of total LG income. LGs have also requested shares of CIT, capital income tax, and some excise tax revenues from the central government.

67. **An appropriate division of revenues and expenditures between levels of government depends on the roles and capacities of each level.** To the extent that local governments supply a federally mandated set of benefits, it is reasonable for them to require central government revenue transfers. Localities with a smaller tax base may require a higher share of central transfers, if required to provide a standard package of benefits. To the extent that LGs provide a locally chosen set of services, however, they should be required to raise local revenues for such projects. LG accountability to their local constituents also requires that they raise their own revenue at the margin. It is reasonable for the central government to require a minimum level of local tax effort (e.g., a minimum property tax rate) as a counterpart to receiving federal transfers. As recommended in IMF (2010), increased tax

effort should also be required for LGs that have run up significant budget deficits as a result of discretionary spending.[17]

68. **In dividing the proceeds of different revenue sources, the volatility of revenues with respect to borrowing capabilities and expenditure needs should be taken into account.** If LGs have steady or countercyclical spending requirements and restricted access to capital markets, their revenue sources should not be volatile over the economic cycle. Since 1998, CIT and capital income have been particularly volatile, with coefficients of variation of at least 50 percent. PIT, VAT, and excise revenue have been far less so, with coefficients of 16–18 percent. The most stable yielding tax has been the property tax, with a coefficient of only 10 percent, recommending it as a good source of stable income for LGs.

Recommendations

- Increase the cap on "Group A" property tax rates to at least 1 percent.
- Consider setting minimum rates of property tax for local governments.

VII. Taxation of the Financial Sector

A. Special Tax on Banks

69. **Iceland recently introduced a special tax of 0.041 percent on total liabilities of banks and other financial institutions that operate on a special license from the Icelandic Financial Supervisory Authority (FME).** Branches of foreign banks or financial institutions that accept deposits in Iceland are also subject to this tax. Institutions that are established under a special law and are fully owned by public bodies, or institutions that have officially filed for bankruptcy are excluded. The estimated revenue amounts to ISK 1 billion (0.06 percent of GDP) in 2011 and flows directly into the state budget. In the long term the revenue will be used to establish a special contingency fund that will serve as a guarantee against future financial crises. This bank tax is subject to review after the first year.

Issues

70. **Iceland has followed many other countries in establishing a bank tax to cover the net fiscal cost of direct public support to financial institutions and help reduce excessive risk-taking** (Table 6). The institutions that are subject to the bank tax could be narrowly (banks only) or broadly (all financial institutions) defined. As the narrow application would

[17] International Monetary Fund, "Strengthening the Local Government Fiscal Framework," IMF Fiscal Affairs Department Technical Assistance Report, Washington, DC, December 2010.

Table 6. Bank Taxation in Selected EU Countries

	Base	Rate	Revenue
Austria	Non-consolidated balance total, excluded paid-up capital, insured deposits and certain debts to banks, if necessary to comply with liquidity requirements, and increased by financial derivatives in portfolio	< EUR 1 billion: 0% EUR 1 billion – EUR 20 billion: 0.055% > EUR 20 billion: 0.085% + 0.015% on amount of all financial derivatives	General Budget
Belgium	Insured deposits	0.15% of the deposit base	Deposit Guarantee Fund
Cyprus	Liabilities, excluding equity and insured deposits	0.05% of the liabilities as defined in the base at the end of the year	Resolution Fund
Denmark	Insured deposits and securities	Ex post, if needed, with a maximum of 0.2% of the insured deposits and securities	Deposit Guarantee Fund
France	Risk-based average assets	0.25% of capital requirements (based on risk-based average assets)	General Budget
Germany	Liabilities, excluding equity and insured deposits, increased by the nominal value of derivatives	*Progressive rate for liabilities*: < EUR 10 billion: 0.02%; EUR 10 billion – EUR 100 billion: 0.03%; > EUR 100 billion: 0.04%. *Fixed rate for derivatives:* 0.00015% *Maximum rate*: 15% of the annual profit of financial institution (after tax)	Resolution Fund
Hungary	Liabilities, excluding loans between financial institutions	< HUF 50 billion: 0.15% > HUF 50 billion: 0.5%	General Budget
Portugal	Liabilities, excluding tier 1 and tier 2 capital and insured deposits; and notional value of off-balance derivatives	Progressive rate: 0.01% - 0.05% on liabilities 0.0001% - 0.0002% on off-balance derivatives (thresholds are set in regulations)	General Budget
Sweden	Liability, excluding share capital, bonds treated as equity, internal debt transactions between entities of the group paying the bank tax, and debt securities issued within the framework of a guarantee program	2010-2011: 0.018% > 2011: 0.036%	Resolution Fund
United Kingdom	Liabilities, excluding tier 1 capital, insured deposits, and liabilities against policyholders; and Assets that are included in the liquidity buffer according to the Financial Services Authority	2011: 0.04% > 2011: 0.07% Reduced rate for capital financing with long term (remaining term > 1 year): 0.02%, after 2011 increased to 0.035%	General Budget

Source: Dutch Ministry of Finance.

single out specific institutions, and create incentives for systemic risks to migrate, a broad application, with appropriate allowances for riskiness in the base and rate, would address these concerns and better cover institutions that could become systemic in the future. In addition, it would recognize that all institutions benefit from the public good of enhanced financial stability provided by the resolution scheme. It would also help create a broad constituency to provide some level of accountability that any funds raised are used efficiently and remain available for financial sector support. Finally, singling out a narrow group of

institutions to pay the levy could worsen moral hazard by suggesting that they are less likely to fail than those outside the scheme. These considerations suggest that the bank tax should be imposed on all financial institutions.

71. **In deciding which components of the balance sheet to include in the tax base, two issues arise**: (1) whether the base should be represented by assets or liabilities; and (2) whether it should be broad or narrow (include off-balance sheet items or not). A broad base on the liability side of the balance sheet may be preferable, as it allows a lower rate for any given amount of revenue, and so limits the risk of unintended distortion. It would also acknowledge that the cost of resolution arises from the need to support liabilities. However, it would be important to exclude equity (so as not to discourage capital accumulation). In principle, other liabilities could also be excluded to reflect their risk-characteristics or to avoid double taxation, such as subordinated debt, government guaranteed debt and intra-group debt transactions (an approach taken by Sweden). The levy could be applied only to select liabilities (such as wholesale funding, short-term debt or foreign funding) with the explicit objective of discouraging such activities. However, the narrower the base concept, the higher the risks of arbitrage, evasion, and unintended effects. To avoid double imposition, insured liabilities could be excluded or, better, a (nonrefundable) credit given for payment of premiums in respect of insured liabilities. Off-balance sheet items could be included to the extent that they represent a significant source of systemic risk.

72. **The setting of the rate could draw on experiences of past crises and their fiscal costs, and should take into account the risk profile of the financial system (including its structure and regulatory framework).** Empirical analysis[18] suggests that, given present institutional structures in major G-20 countries, (implicit) government support provides "too big to fail financial institutions" with a funding benefit between 10 and 50 basis points, with an average of about 20 basis points. The rate for non-systemic and less risky financial institutions could be substantially lower, implying a lower overall rate. As risks vary over the cycle, the rate would have to be adjusted so as to help make the financial system less pro-cyclical.

Recommendations

- Maintain the bank tax introduced in January 2011.
- Modify the balance sheet base on the liabilities side, excluding equity capital, by allowing for a credit for payments in respect of insured liabilities.
- Consider including off-balance sheet derivatives in the tax base.

[18] See: Rime (2005), Soussa (2000), Baker and McArthur (2009), and Haldane (2009).

- Consider, over the medium term, adjusting the rate to address institutions' specific risks and their contribution to systemic risk.

B. VAT on Fee-Based Services

73. **All financial services are tax exempt under the current Icelandic VAT, irrespective whether they are fee-based transactions or margin-based transactions**. By regulation, some transactions—executed by providers of those exempt services—that are in competition with others, are subject to VAT by reverse charge.[19]

Issues

74. **The rationale for the exemption of financial services under the standard invoice-credit form of VAT is the practical difficulty of taxing them fully under such a system**.[20] For financial services provided on a fee-paying basis, VAT can be charged in the usual way. The difficulty arises for services charged for in the margin on intermediation services ('margin-based transactions'). The allocation of the margin relative to some benchmark 'pure' interest rate is complex, and results in high administrative and compliance costs. A common response has been to exempt such services (meaning that no tax is chargeable on sales, but associated input tax is not recovered).

75. **Exemption of margin-based transactions means that business use of financial services tends to be overtaxed**. The prices charged by financial institutions will likely reflect the unrecovered VAT charged on their inputs, so that business users will pay more than they would have in the absence of the VAT. The distortion of production decisions by exemption is felt, for example, through the tax incentive for financial institutions to self-supply services rather than purchase externally (and so incur unrecovered VAT), in too little use of domestic financial services by business users, and a tendency to purchase financial services abroad (since services provided to a non-resident are commonly in effect zero-rated). For final consumers, on the other hand, exemption likely means under-taxation, since the price they pay does not reflect tax on the full value added by financial service providers, but only their use of taxable inputs.

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[19] For instance, construction, maintenance and repairs of business assets, laundry, printing, or canteen exploration, cleaning activities above a certain threshold, certain skilled service activities, and security services.

[20] While the extent of exemptions of financial services is largest in the EU countries, more recently-introduced VATs have brought more financial services, especially fee-based services and insurance, into the VAT net. New Zealand and South Africa have gone very far along this road.

76. **Several countries have sought to correct for this by imposing on the sector some form of sector-specific addition-based tax**.[21] A 'Financial Activities Tax' (FAT), levied on the sum of profits and remuneration of financial institutions (including insurance companies), could raise significant revenue and be designed to serve as an alternative tax on value added, and so would partially offset the risk of the financial sector becoming unduly large because of its favorable treatment under existing VATs.[22] Taxing value-added in the financial sector directly would mitigate this. To avoid worsening distortions, the tax rate would need to be below current standard VAT rates. The size of financial sector value-added in Iceland suggests that even a relatively low-rate FAT could raise significant revenue in a fair and reasonably efficient way: for instance, a 5 percent FAT (with all salaries included in the base), might raise about 0.33 percent of GDP.[23]

Recommendation

- Consider abolishing the reverse charge on self-supply by financial institutions and introduce a tax on the profits and remuneration of financial institutions (FAT).

C. Taxation of Derivatives

77. **Currently derivatives are taxed as interest payments and subject to 20 percent withholding tax**. Derivatives are financial instruments whose value depends on other, more basic, underlying variables. Such variables can be the price of another financial instrument (the underlying asset), interest rates, volatilities, or indices. The taxation of derivatives typically depends on three criteria: (1) the characterization of income; (2) the determination of income—timing of taxable event; and (3) the withholding tax implications. As Iceland does not treat capital gains differently from ordinary income—except regarding capital losses on shares—the first criterion is less relevant.

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[21] Israel applies an addition basis tax to financial institutions, the base being taxable income for company income tax purposes plus wages paid and the rate the same as the standard VAT rate. In Italy, the regional tax on productive activities (IRAP), introduced in 1998 to replace several existing taxes, is similar to an addition basis VAT, and applies to both financial and non-financial businesses. France and Denmark both levy a compensatory tax on the financial sector to broadly offset the under-taxation implied by exemption. In France, the *tax sur les salaries* applies to all employers subject to VAT on less than 90 percent of their total turnover. In Denmark, as in France, the payroll tax applies to various sectors which are largely exempt from VAT.

[22] Relative, that is, to a situation in which the VAT applied uniformly to financial services and all other goods and services.

[23] The potential tax base in Iceland could amount to 6.5 percent of GDP [i.e., Gross operating surplus and mixed income in the financial intermediation sector (3.2 percent of GDP) -/- Gross fixed capital formation in the financial intermediation sector (0.9 percent of GDP) + Labor costs in the financial intermediation sector (4.2 percent of GDP)].

Issues

78. **Because the rules for taxation of business enterprises are normally based on financial accounting rules, definition of taxable income in most European countries follows these rules**. These rules tend to be more flexible than accounting rules set forth in the tax laws themselves and provide a sound basis for dealing with new financial instruments so that no significant threat to erosion of the tax base arises from use of such instruments. Countries which (1) do not have reduced rates (or exemption) for capital gains, (2) base their corporate income tax on the financial accounting rules, and (3) have kept their corporate income tax rules simple, therefore, may not need extensive special rules for derivatives in their domestic legislation.

79. **Legal form makes a difference in the area of withholding**. Under each country's domestic law, as limited by tax treaties, withholding applies only to specified types of payments. Iceland imposes withholding tax on dividends, interest, and royalties, but not on capital gains and other contractual payments. Because taxpayers can use derivatives to manipulate the legal form of payments, the integrity of withholding taxes is likely to come under pressure. In the case of certain derivatives, tax policy concerns militate against the imposition of a withholding tax, because the payments may not be closely correlated with the income actually earned. This is particularly the case for swap payments. There is a risk, therefore, that if a gross basis tax is imposed at source, taxpayers simply will not enter into the type of transaction subject to withholding, because the withholding would be out of proportion to the amount of income involved. Such a policy may therefore deny to domestic companies the risk-shifting benefits that new financial instruments can provide.

80. **Tax treaties place significant constraints on countries' freedom of action in imposing a withholding tax on derivatives**. Tax treaties following the OECD Model classify income from derivatives as business income, capital gain, or 'other income'.[24] Under any of these characterizations, the income would generally be taxable only in the residence country—although some tax treaties may not follow the OECD Model as far as the 'other income' article is concerned. Therefore other income is taxable in the source state without limitation. In such cases, it becomes important whether the income is characterized as business income or as other income. Presumably, where a derivative is issued by a financial institution in the ordinary course of its business, the income should be regarded as business income.

[24] This conclusion holds, for example, even in the case of an interest rate swap. Although the payments under the swap agreement are determined with reference to an amount of interest payable by each of the parties to the swap, the swap payments themselves are not interest. They are not payments for the use of money, there being no loan between the parties to the swap.

81. **An interest element can be embedded in a swap because of deferred timing, even where the swap as a whole is not just a disguised loan**. The calculation of the implicit interest element in swap agreements is relatively complex, but this complexity should be manageable, given that the parties to swap agreements are financially sophisticated and able to make the requisite calculations. Moreover, most swap agreements are not likely to involve an implicit interest element. Taxing the interest element of derivatives may be particularly important where a country's policy is generally to impose a withholding tax on all payments for capital invested in the country.

82. **Although the vast majority of countries generally do not impose withholding on derivatives (absent those payments characterized as implicit interest), Iceland imposes a withholding tax more generally on derivatives**. This may be motivated by a concern that derivatives could be used to erode the domestic tax base in the absence of a withholding tax. In particular, it risks cutting off the benefits of these transactions for its residents, because the withholding tax may make the transactions unviable. However, taxpayers may be able to avoid the withholding tax by structuring the transaction through a taxpayer resident in a treaty country with a treaty that precludes the tax. The result will be that the withholding tax will in effect preclude domestic taxpayers from entering into derivative agreements with taxpayers resident in non-treaty partners, in particular with tax havens.

Recommendations

- Consider withdrawing the 20 percent withholding tax on derivatives, except for the implicit interest element in swap agreements or other derivatives.

D. Stamp Duty

83. **The 2010 FAD report recommended the abolition of stamp duties, which applied to a broad range of financial contracts including share trading (50 basis points) and loan contracts (50–150 basis points).** The government is currently eliminating stamp duties, and replacing them with "registration taxes" on real estate and on insurance premiums and contracts. The overall change is designed to be revenue-neutral and comply with EU financial directives.

Issues

84. **Although taxes on real estate transactions are less harmful than taxes on securities transactions due to their less mobile base, they can still inhibit an efficient allocation of real property.** An excessive levy on real estate transactions may do so and any levy should not exceed 1 percent. The revenue could be made up through higher property taxes, which do not discourage transactions.

Recommendation

- Restrict any tax on real estate transactions to at most 1 percent.

VIII. Environmental Taxation

85. **Iceland does not share the Scandinavian tradition of extensively using environmental taxes to internalize externalities, although recent reforms mark a change.** During the late 1990s, Iceland started to introduce economic instruments for environmental policy, such as municipal waste fees, recycling fees and taxes on hazardous waste (batteries, chemicals, residuals from oil). Yet, contrary to the Nordic countries—where environmental taxes form a substantial share of total tax revenue, up to almost 6 percent of GDP in Denmark in 2008—Iceland raises relatively little revenue from environmentally related taxes (less than 2 percent of GDP in 2008).[25] Indeed, such taxes have been especially low in the area of transportation and energy.[26] In 2010, however, Iceland introduced a number of new environmental taxes. Moreover, it reformed existing taxes to better reflect environmental externalities. There are options for further 'greening' of the tax system, with some of these taxes having mainly a fiscal motivation and others primarily a regulatory purpose.

A. Electricity Tax

86. **On January 1, 2010, Iceland introduced its energy tax, a levy on electricity and hot water.** The rate on electricity is ISK 0.12 per kwh (approximately US$1 per mwh) and is levied on both households and industry (except for very small firms). The rate for hot water from geothermal sources is 2 percent of the retail price. In 2010, the taxes raised respectively ISK 1.8 billion and ISK 0.2 billion, adding up to 0.13 percent of GDP. The energy tax is temporary and will expire at the end of 2012. An agreement with the power-intensive industry—more generally dealing with the pre-payment of tax—stresses this temporary nature of the tax and refers to Iceland's participation in phase III of the European emissions trading scheme (ETS). That will open a new era for the power-intensive industry, which requires reconsideration of its taxation.

[25] European Commission (2010).

[26] See e.g., H. Lindhjem, J. Magne Skjelvik, A. Eriksson, T. Fitch and L. Pade Hansen, 2009, The Use of Economic Instruments in Nordic Environmental Policy 2006–2009, Nordic Council of Ministers, Copenhagen.

Issues

87. **Iceland's tax rate on electricity is low compared to other European countries.** Table 7 shows the average tax on industry and households in a selection of European countries in 2010, based on data from the International Energy Agency. The average rate for industry runs from US$0.7 per mwh in the U.K. to US$13 per mwh in Norway. [27] For households, it lies between US$9 per mwh in the U.K. and US$191 per mwh in Denmark (including VAT). EU Council Directive 2003/96/EC also sets minimum excise rates on electricity in EU Member States. For industries, the minimum is set at EUR 0.5 per mwh; for households it is EUR 1 per mwh. For energy-intensive industries, however, the Directive allows for measures to alleviate the tax burden or for refunds.

88. **While environmental concerns are usually a key motivation for taxes on electricity, the case is less clear-cut in Iceland**. For instance, if the carbon content from fossil fuels used in the generation of electricity is underpriced, a tax on electricity enables governments to indirectly internalize such externalities and encourage energy-saving behavior. Moreover, there may be other externalities from electricity generation, e.g., due to other emissions and waste or because of under-pricing of risks associated with generating the power. In Iceland, however, environmental rationales are less clear-cut than elsewhere. For instance, the generation of hydropower causes no CO_2 emissions; and geothermal energy comes along with some emissions of carbon, hydrogen sulfide, and methane, but the amounts are considerably lower than for traditional power generation from fossil fuels. In geothermal power, there is also a risk that suppliers overexploit the resource, thus undervaluing the benefits for future generations. These concerns may justify some tax on electricity in Iceland, also beyond 2012.

Table 7. Average Tax on Electricity in a Selection of Countries in 2010

	Industry (US$/mwh)	Households (US$/mwh)
Norway	13.0	48.5
Finland	3.3	4.,9
Sweden	0.7	76.6
Switzerland	4.0	16.1
Denmark	9.8	191.3
France	11.4	39.5
UK	3.9	9.2
Netherlands	17.5	40.5

Source: International Energy Agency (2010).

[27] These averages may hide exemptions or much lower rates charged to energy-intensive industries.

89. **Fiscal concerns can justify the tax on electricity.** This is especially so as long as the tax is easy to collect and comes along with low cost of compliance and administration. The electricity tax also aligns Iceland's policy with that in other European countries and makes it compliant with the EU requirements regarding the minimum excise. In Iceland, aluminum smelters consume 80 percent of the electricity and thus bear the brunt of the current energy tax. In the short run, this is efficient since these firms have engaged in large fixed investments that are sunk. Thus, imposing the tax skims off profits, without causing immediate relocation. In the long run, however, higher taxation of these power-intensive industries runs the risk of undermining government credibility, thus hampering future investment in Iceland. We discuss the taxation of the power-intensive industry in more detail in chapter IX.

Recommendations

- Maintain the energy tax beyond 2012 and consider a small increase for households and other small consumers.
- Consider the future electricity tax for power-intensive industries in the broader context of the taxation regime for these firms.

B. Carbon Taxation

90. **In January 2010, Iceland introduced a carbon tax.** Since 2011, the rates are set so as to reflect a carbon price equivalent to 75 percent of the current price in the EU ETS scheme (equal to €14 per ton of CO_2). It comes down to a tax rate per liter of fuel of ISK 3.8 for petrol, ISK 4.35 for diesel/gas, ISK 5.35 for unrefined oil and ISK 4.1 for jet fuel. The carbon tax has been introduced as a temporary measure and expires at the end of 2012. The revenue of the carbon tax in 2011 is predicted at ISK 3.7 billion, or 0.25 percent of GDP.

Issues

91. **Pricing carbon is an appropriate step for Iceland.** First, a carbon tax is an important instrument to achieve reductions in greenhouse gas emissions in an efficient manner. The appropriate rate of tax would equal the social cost of carbon. Estimates on this differ widely, but recent consensus tends towards a price of approximately US$21 per ton of CO_2, close to the ETS price of €14.[28] Second, a carbon tax raises public revenue, a welcome by-product of the policy. It is, therefore, recommended to maintain the carbon tax, also beyond 2012.

[28] Interagency Working Group on social cost of carbon, 2010.

92. **A substantial share of carbon emissions in Iceland is still exempt from the carbon tax.** For instance, the tax on jet fuel only applies to domestic flights and exempts international flights on the basis of international agreements (see below). Likewise, the tax on unrefined oil is levied on domestic vessels (including the fishery fleet), but does not extent to the international maritime transport sector. Also industries that emit substantial amounts of carbon, such as the cement and aluminum sectors, are currently not charged for their emissions. Such exemptions cause distortions, as emissions are not reduced where abatement is cheapest.

93. **Aviation will be subject to carbon pricing in the EU ETS from 2012.** The number of permits will be capped at the average level of emissions between 2004 and 2006. In the first year of the scheme, 10 percent of the allowances will be auctioned and the remaining 90 percent will be allocated for free according to historical emissions. At the margin, airline companies will face an incentive to reduce emissions, though, as do other emitters. With the inclusion in the ETS, there is little Iceland can do to further price CO_2 emissions of the aviation sector.

94. **Other industries—including the marine transport sector and the aluminum industry—will be subject to phase III of the EU ETS (as of 2013)**. In phase III, the European Commission aims at a 60 percent auctioning of emission rights. However, it has identified 164 sectors that are deemed exposed to a significant risk of carbon leakage. These sectors will receive relatively more free allowances, thus reducing the risk of relocation. This will leave a substantial share of the scarcity rents with these industries, rather than with the government. There is little Iceland can do, however, to change this. At the margin, however, the industries will face an incentive to reduce their emissions. The cement industry in Iceland is likely not be covered by the EU ETS due to its small size. To charge a proper price of carbon, extending the carbon tax to this sector should be considered.

95. **Iceland can raise the carbon tax to fully reflect the ETS price.** Such an extension would require a 25 percent increase in the tax in 2012, and then at least maintaining it in real terms thereafter. It would most likely raise another ISK 1 billion, equivalent to 0.07 percent of GDP. The rate should gradually rise in the future, preferably at the same rate as the social cost of carbon (generally estimated at 2 to 3 percent per year in real terms). The carbon tax should not be directly linked to the EU ETS price. Indeed, one of the major disadvantages of an ETS scheme is the large volatility in the price. It would serve Iceland better if the carbon tax would keep up with the trend development in the ETS price over a longer period of time if that would follow the trend increase in the social cost of carbon.

96. **While industries in Iceland will soon face a higher cost of carbon under the EU ETS, they are not charged on other emissions from fossil fuels, such as nitrogen oxides (NOx) and sulfur dioxide (SO_2).** These compounds—generated by fuels used in the fishing fleet and the production of aluminum—are important for their role as contributors to acid wet and dry precipitation. Emissions are regulated under the Gothenburg protocol, which

prescribes emission reduction obligations by participating countries, although Iceland has not ratified this part of the protocol. Charging an appropriate price for emissions, as for instance done by Norway and Sweden, will help internalize externalities in an efficient way.

Recommendations

- Maintain the carbon tax beyond 2012 and extend it to sectors not covered by the EU ETS, such as the cement sector.
- Increase the carbon tax rate to the price of carbon in the EU ETS.
- Consider introducing taxes on NOx and SO_2.

C. Vehicle Taxes

97. **Iceland has two vehicle taxes: a bi-annual road tax on passenger cars and an excise duty on motor vehicle purchases.** Both taxes have been substantially reformed in 2011. Being previously based on the weight or engine size of vehicles, they are now based on the carbon emissions they cause. For each car, carbon emissions are registered in grams per kilometer driven for combined average use of city and road driving. The government uses this as the base for differentiating taxes.

98. **The bi-annual road tax is ISK 5,000 if emissions of a car are lower than 121 grams of carbon per kilometer, and ISK 120 for each gram exceeding that.** Vehicles for which there is no information on emissions are taxed on the basis of weight. The maximum tax for heavy vehicles is ISK 73,800 per semester. In 2011, the projected revenue of this tax is ISK 7 billion, or 0.45 percent of GDP.

99. **The ad valorem excise duty on motor vehicles is divided in 10 categories, based on emissions.** The excise is zero for the lowest category (less than 80 grams) and goes up with steps of 5 or 10 percent to 65 percent for cars emitting more than 250 grams per kilometer. There are a large number of exceptions to this rule, however. For instance, there is separate list with lower rates for vehicles used by taxi firms and car rentals; several vehicles other than ordinary passenger cars are exempt or face a fixed low rate of 13 percent; and vehicles primarily using methane receive a credit of ISK 1,250,000. In 2011 and 2012, there is also a transitional regime in which the most polluting cars face somewhat lower rates than what they will ultimately be in 2013. Revenue from the vehicle excise in 2011 is projected at ISK 1.9 billion, equal to 0.13 percent of GDP.

Issues

100. **Taxing vehicles based on their carbon emissions is a good step and consistent with trends elsewhere in the EU.** The European Commission aims to reduce the average emissions of new cars in 2012 to 120 grams of CO_2 per kilometer, a reduction of 25 percent

compared to 2006. Differentiating excises and road fees according to CO_2 emissions will help achieving this.

101. **Special rates and exemptions undermine the effectiveness of vehicle taxes in reducing emissions from vehicles.** When viewed from the perspective of an efficient environmental policy, there is little reason for a more favorable treatment of taxis and rental cars, especially since these cars might be used more rather than less intensively than an average passenger car and thus involve more carbon emissions. A special treatment of vehicles other than passenger cars (busses, rally cars, snow mobiles, tractors) may be justified, however, since they probably feature a very different average use compared to passenger cars. Exemption seems overly generous though, as these vehicles cause emissions too. Thus, exemptions create distortions in the achievement of a given reduction in emissions. The use of vehicle taxes as instruments of environmental policy can thus be improved further by reconsidering exemptions and the low rates for commercial use of cars.

Recommendations

- Bring taxis and rental cars under the regime for excise duties as other passenger cars.
- Introduce an excise on vehicles that are currently exempt from the vehicle excise duty.

D. Fuel Excises

102. **Excise rates on petrol and diesel have increased in Iceland.** Since 2008, the sum of the earmarked excise (which feeds the Road Authority's funds) and general excise has risen for petrol and diesel by, respectively, 48 and 34 percent in nominal terms. In real terms, the increase was much more modest as the CPI increased during that period by approximately 30 percent. In addition to higher excise rates, the government introduced carbon taxes that also bear on petrol and diesel. In 2011, the total excise on petrol is ISK 62.41 per liter and on diesel ISK 54.88 per liter. Together, the excises raise ISK 19.5 billion, equal to 1.2 percent of GDP.

Issues

103. **Despite recent increases, fuel excises in Iceland remain relatively low compared to other Nordic countries.** Although these excises have an impact on environmental externalities too, they have traditionally functioned as fiscal instruments. For instance, the retail price of a liter of petrol in Iceland, in February 2011, was €1.39, compared to €1.54 in Sweden, €1.60 in Finland, €1.66 in Denmark and €1.8 in Norway. As Iceland does not have to fear cross-border fuelling, there is scope further to increase the excise rates. The motivation for this is mainly a fiscal one, driven by the revenue needs of government. If circumstances permit, an increase in the rate on petrol in the coming years by, say ISK 20 per

liter in real terms, would bring the retail price in Iceland close to that currently in Sweden, Belgium, Ireland, Italy, Portugal, and the U.K., and still quite a bit lower than in Germany, Greece, France, the Netherlands, and the other Scandinavian countries. If the same increase were imposed on diesel, revenue would increase by some 0.4 percent of GDP in 2013.

Recommendation

- Increase the excise rates on petrol and diesel by ISK 20 in real terms if circumstances permit.

E. Waste Taxes

104. **Iceland levies a number of waste fees, but no taxes landfill or incineration.** Iceland has adopted hazardous waste fees on several products and recycling fees that finance the cost of collection, transport, and recovery or disposal of waste. It has, however, not imposed taxes on waste put in landfill or emissions from waste incineration. Landfill is much more common in Iceland than incineration, with the latter comprising less than 10 percent of total waste treatment.

Issues

105. **Taxes on landfill and incineration can help internalize externalities from waste, but the size of the external cost in the case of Iceland is unknown.** The rationale for a corrective tax on landfill occurs if its market price in the form of land use—under the environmental rules and regulations set by the government—is lower than the social cost of such waste treatment. External costs may take different forms, such as methane emissions that contribute to the greenhouse effect or unpriced risk of leaching accidents and pollution of water systems. Also incineration may cause externalities due to emissions of metals, dust, dioxins and nitrogen, and sulphur dioxides. These externalities have motivated the Nordic countries to set a price on their environmental cost. It aims to stimulate recycling and reduce the amount of waste generated. Most countries differentiate the rates for landfill and incineration to reflect the differences in social costs, usually in favor of incineration. Pricing the external cost of landfill and incineration would increase the price of waste treatment, which will ultimately bear on consumers. It will provide incentives for recycling and prevention and could thus form an efficient part of waste management in Iceland.

Recommendation

- Consider the introduction of corrective taxes on landfill and incineration, following the systems in the Nordic countries.

F. Aviation Taxation

106. **Keflavik airport levies a number of fees and new taxes are proposed.** There are landing, parking, and security fees for domestic and international landings. In addition, an airport tax of ISK 382 is levied on departures, feeding expenditures for security, and research. There is also a charge of ISK 598 to cover the cost of maintaining other airports as international reserve airports. The government has just launched a proposal for new departure tax, which is related to the distance of travel. The tax lies between ISK 65 for flights less than 500 kilometer to ISK 390 for flights of more than 4000 kilometer. The new tax should finance investments in popular tourist attractions, together with a new tax on hotel accommodations. The expected revenue of the departure tax is ISK 195 million.

Issues

107. **Aviation contributes significantly to global warming.** Apart from emissions of carbon, flying comes along with emissions of nitric oxide, nitrogen oxide, and sulphur oxides. The most direct way to internalize the externalities going beyond CO_2 emissions, is to impose an additional tax on fuels. Yet, taxing aviation fuel is considerably constrained by international agreements, such as those governed by the International Civil Aviation Organization. In Europe, moreover, special rules and bilateral Aviation Service Agreements (ASAs) constrain the use of such taxes. Restrictions apply to many countries, including Iceland.

108. **Aviation services are also under taxed compared to other goods and services, which offers a rationale for other forms of taxation.** In particular, no VAT is charged on international flights. This leads to distortions in consumption patterns. To reduce the under taxation and indirectly internalize environmental externalities, countries have introduced departure taxes on tickets. For instance, the U.K. introduced during the 1990s an air passenger duty with four rates, depending on the destination and class. In 2011, Germany introduced an ecological departure tax of a similar kind, with four different distance categories. These taxes may help internalize the externalities from aviation, albeit in an indirect manner (e.g., freight flights are not taxed and the link with emissions is rather indirect). The Icelandic proposal for a passenger tax falls in the same category as the ones in the U.K. and Germany. The proposal has, however, not been accepted by parliament.

Recommendation

- Introduce the proposed ecological passenger tax, differentiated by distance travelled.

IX. Taxation of Natural Resources

A. Issues and Challenges in Natural Resource Sectors

109. **Iceland's key challenge is to increase value retained from use of its hydro and geothermal resources, under historical circumstances of bilateral monopoly, and of possible petroleum discoveries**. Iceland's power was not priced on international markets, but by negotiations in which there would be no market for the power unless an energy-intensive project was constructed. That situation is changing, both with respect to pricing of electricity and in the enterprises that may come to Iceland to use power. There is, however, a legacy of long-term assurances properly given in the past that restrict what government can do today. Developments call for a reconsideration of several institutions, including allocation, market structure, ownership, and taxation.

B. Allocation of Rights to Hydro and Geothermal Resources

110. **The present allocation of hydro and geothermal resources is confusing and chaotic**. The government is working on reform of the system. In Iceland, by contrast with many other countries, title to subsoil or hydropower resources belongs to the owner of the land surface. Until 1998, there was no separate regulation or licensing of resource rights by the state, beyond planning, environmental, and other regulation applying generally. The state itself owns substantial amounts of land, and thus rights to resources, through various types of tenure, including that of municipalities. Public enterprises such as Landsvirkjun also own land where resources are located. By a law of 2008, the state, municipalities and public enterprises are prohibited from transferring ownership of rights to private entities.[29] Thus in many cases negotiation of rights to resources has taken place with the central government or municipalities as owners. Access to resource rights has thus grown under a "first-come-first-served" system, with sometimes multi-tiered transactions with landowners, municipalities, public enterprises, or the central government. This system has made it difficult to treat the resources as belonging to the people of Iceland as a whole, or to allocate them in the most efficient way, or to charge appropriately for their use.

111. **Survey or utilization of resources now requires a license from the Minister for Industry, Energy, and Tourism**. Legislation of 1998 introduced a licensing system, now administered on behalf of the government as a whole by the Prime Minister's office.[30] This legislation recognizes continuing private ownership, but limits the use a private owner may make of resources for economic purposes. A license applicant must negotiate separately with

[29] Act amending various acts of law relating to natural resources and energy, adopted May 29, 2008.

[30] Act on the survey and utilization of ground resources, 1998, no. 57 of June 10, amended in 2006 by Act No. 5 effective February 18.

a landowner (including the state) on compensation for the use of resources. The original legislation specified neither the duration of any license, nor any charge or fee for the grant of the license—amendments of 2008 (see below) set a limit of 65 years. This framework, in effect, adds a procedure of discretionary allocation to the "first-come-first-served" and market mechanism previously prevailing. Using the reports of two recent committees, the government has the allocation of these rights under review.[31]

Issues

112. **The principal issues concerning resource rights are: ownership, allocation procedures, duration, fees and charges, and transferability**. These issues need to be considered as interlinked. Despite the introduction of licensing, ownership of rights remains an issue distorting competition because of the extent of ownership rights remaining with public enterprises and municipalities. Allocation procedures need revision either to accommodate auctions where feasible, and in any case to open access to rights in a transparent and fair way to competent energy companies. The duration of licenses needs to take account of measures to secure their economic worth for the state, balanced by the need to attract investment (and especially third party finance) in energy intensive industries. The fees and charges must observe the same considerations. Transferability terms need to balance the objective of controlling and regulating resource use, with that of ensuring the resources are used by those who can do so most efficiently, and of providing adequate security for financing facilities.

Ownership

113. **Resource ownership rights held in the public sector are not transferable into private ownership**. Despite the requirement for further licensing of the right to exploit natural resources, the continued ownership of rights by different public sector institutions (including power companies) creates the impression that the rules of allocation will be biased against future private investors. A two-stage solution to this has already been canvassed within government. Step (1) requires each public sector entity to transfer ownership of such rights to a specially-incorporated subsidiary, so that they are transparently held and (in the case of enterprises) separable from the balance sheets of the parent company. Step (2)

[31] (1) Steering Committee for the Formulation of a Comprehensive Energy Policy For Iceland (Icelandic: "Orkustefnunefnd"); Rreport (January 2011): Energy Policy for Iceland—Draft for discussion (Icelandic: "Orkustefna fyrir Ísland—drög til umsóknar"). (2) Committee appointed by the Prime Minister to address leasing arrangements for water and geothermal utilization rights owned by the Icelandic government (Icelandic: Nefnd forsætisráðherra sem skipuð var samkvæmt III. Bráðbirgðaákvæði laga nr. 58/2008); report (March 2010): Leasing Arrangements for Water and Geothermal Utilization Rights Owned by the Icelandic Government (Icelandic: "Fyrirkomulag varðandi leigu á vatns- og jarðhitaréttindum í eigu íslenska ríkisins").

requires consolidation of these holdings into a single "resource management fund", so that resource ownership is no longer an issue when rights of use are allocated.[32]

Allocation of rights

114. **Both efficiency and transparency are currently damaged by the absence of clear procedures for allocation of rights, including procedures for auctions**. The committee mandated by the parliament in 2008 (see note 33) was to "address methods of choosing between those who express an interest in utilizing the resources." This committee favors the use of auctions, but its report recognizes that genuine competitive bidding may not always be feasible. It favors a two-stage auction process involving, first, prequalification and, second, the bidding itself. The committee suggests the bid variable could be a bonus (one-time fee) but with the possibility of converting this into an annuity payment over the life of the lease. The auction method and the minimum number of bidders will also be important. Auctions, in any case, cannot substitute fully for assessment of the technical and environmental qualities of project proposals.

115. **A framework for allocation without auctions is also needed**. Auctions and other means of allocation can co-exist, with auctions feasible in some circumstances but not others. In either case, the government could move away from "first-come-first-served' by consolidating its own resource assessments into "packages" of geothermal or hydro resource rights that are offered for investment during a selected time period. Where there are no auctions, proposals could be assessed on technical, environmental, and other grounds, under published criteria and possibly with numerical weightings. Selection by the government could be complemented by an independent advisory committee, perhaps supported by contracted international expertise.

Duration

116. **Duration of resources leases is linked to the structure of tax and resource charges**. The amendments of 2008 set a limit of 65 years on the period of time for which public entities could grant rights of use to resources they own. Debate in Iceland has centered on pressures to shorten such leases, to preserve flexibility to adapt terms and conditions to changing circumstances. In view of the commitments for long periods of time made in the past, on fiscal and commercial terms that, in retrospect, may seem too generous to investors, these pressures are understandable. The significance of lease duration, however, depends on the adaptability (and progressivity) of fiscal and other terms built into lease conditions. If the lease contains nothing but a small flat charge, with the leaseholder then obliged to pay CIT

[32] This consolidation may require balance sheet adjustments in public enterprises such as Landsvirkjun, since the removal of the notional value of these property rights could affect the extent of their apparent solvency. It should be stressed that this is not an issue of the real solvency of such enterprises.

on business profits, a very long lease may well turn out to be inequitable. If, as this report proposes, there is a resource charge geared to project results, the lease duration becomes less important.

117. **Capacity to grant long leases (or simple renewals) may be important to the commercial viability of major power projects**. Where the power project depends for a market on a major energy-intensive user, such as an aluminum smelter, the ability to offer power for long periods of time consistent with amortization of the consumer's investment will be important. The more flexibility is built into the method of charging for the resource, the less will be the need for short lease periods or major reviews of terms on grounds of "change of circumstances".

Fees and charges

118. **Charges facing an investor have four elements: payment to the landowner; the extraction levy; a variable resource charge; and income tax**. In the case of state-owned resources it is feasible to roll the first two items into one, thus simplifying the structure. The committee proposed that the base level of a fixed extraction levy should be the estimated environmental cost of resource utilization: this is a sound approach, on the understanding that there should be some consistency across projects, and thus there will be an arbitrary element in individual cases. Additional extraction levy (perhaps annuitized) will be a bid variable where auctions take place. Payments to private landowners have reached 1.4 percent of project investment cost; these are significant amounts, but mitigated where deductible as a cost against CIT and a variable levy.

119. **A variable resource charge will better extract resource rent over time, and allay fears about the length of leases**. This report addresses the possible form of a variable resource charge in Section IX.E, below. Normal CIT should be payable, with no application of special incentive packages.

Transferability of rights

120. **Transferability of rights of use (not ownership) can be consistent with strong public regulation**. The 2008 amendments exhibit government and public concerns about the transfer of resource ownership to private parties. The recent committee report does not address transferability, but the mission understood the committee intended rights of use (as distinct from ownership) to be transferable. Transferability is important to ensure efficiency of use, and also to reduce the cost of financing by providing adequate security to lenders. The public interest requires that conditions of transferability meet these purposes, while protecting the state's right to determine resource use.

121. **Rights of use can be transferable subject to regulatory approval in three circumstances.** (1) Where there is corporate reorganization, a transfer to an affiliate should be straightforward. (2) Where there is a sale, or a farm-in/farm-out, of a project using

existing rights, the necessary transfer of rights should be permissible subject to regulatory approval "not to be unreasonably withheld." As usually interpreted, this would give the state the right to vet the transferee for technical and commercial integrity. (3) Where there is third party financing, borrowers should be able to offer security to lenders such that, in the event of default, lenders can step in for a period sufficient to organize the restoration of cash flow at the project, sufficient to resume debt service. This is short of an unconditional mortgage, but likely to be sufficient for genuine financing needs.

Recommendations

- Move in steps towards consolidation of publicly-owned resource rights into a single entity.

- Prepare for resource allocations by auctions and by transparent comparison of proposals; consolidate resource assessments into packages of resource leases that are offered for investment projects.

- Link the duration of leases to the flexibility of resource charges; continue to grant easily renewable long leases where a progressive resource charge is applied.

- Set the base extraction levy in relation to anticipated environmental costs; make additional extraction levy a bid variable at auctions.

- Introduce a resource charge geared to the achieved results of a project.

- Permit transferability of rights of use, to affiliates, upon sale or farm-in, and for third party financing, subject to regulatory safeguards.

C. Ownership and Competition in Power-Generating Industries

122. **The Icelandic electricity market complies with EU Directive 2003/54/EC regarding competition.** The Electricity Act of 2003 prescribes the unbundling of vertically integrated power companies into electricity generation, transmission, distribution, and supply. The markets for power generation and supply are competitive. Transmission and distribution are subject to concession arrangements and specific regulation by the National Energy Authority. A power company can be a generator, distributor, and supplier, but accounting separation is required between concession and competitive activities.

123. **The retail market seems to function properly.** The Icelandic power market can be divided into two segments: the retail market for small consumers, and the wholesale market for power-intensive industries. In the retail market, individuals, businesses, and public organizations are free to choose their electricity supplier. Suppliers sell electricity to the end consumer, either through their own generation or by purchasing electricity from generators or the distributor holding the concession for a respective area. As a result of competition,

consumer prices have converged in Iceland. The consumer price is low compared to what is common in Europe due to the low cost of production and the low tax on electricity.

124. **The wholesale market is subject to international competition for investment.** Power-intensive industries directly receive electricity from power generating companies. Bilateral contracts determine the conditions and price. Wholesale prices are the result of a bargaining process between the generator and the user. The bargaining position of the user is stronger if he has several locations to choose from, both within Iceland and elsewhere in the world. The bargaining position of the power generator is stronger if he has several clients to choose from. Hence, while Icelandic power cannot be exported directly, it is exported indirectly via the power embodied in products that are traded in world markets, such as aluminum. The electricity market is thus exposed to international competition and forces of demand and supply on the international markets determine the electricity price.

125. **While the power market in Iceland will be isolated in the coming years, long-term developments may take a different course.** In the longer term, the electricity market in Iceland may evolve along two lines: a 'Cable Scenario', where Iceland will be connected to mainland Europe and be part of a much bigger market; or an 'Isolated Market Scenario', in which there is no Cable and Icelandic electricity remains an issues of domestic supply and demand. These scenarios are fundamentally different. In the 'Cable scenario', Icelandic power companies would be able to sell at much higher prices and be very lucrative, despite some transmission losses. For instance, in 2009, the average price of power supplied to industrial users in the EU27 was close to €90 per mwh. In Iceland, the average electricity price for power-intensive industry was around €35. Today's electricity price at Nord Pool, the Scandinavian spot market, is around €64 per mwh. In a cable scenario, the rent generated by power companies could thus significantly increase.

Issues

126. **The market environment is changing, which calls for a reconsideration of ownership structures and competitive conditions.** Iceland has ample opportunities for expansion of power supply to energy-intensive industries and its portfolio of industries is expanding as new users find their way to Iceland. Power supply is currently dominated by a few government-owned players. Ensuring production efficiency and proper incentives requires more transparency in the market and the creation of a level playing field.

Transparency

127. **Lack of transparency reduces efficiency and hampers competition.** The non-transparency of electricity contracts—described as 'half confidential" since prices are known to consultants and anyone with inside information—does not serve the public interest and hinders competition and market development. Landsvirkjun has, this year, taken an important step by publishing average prices. An enterprise contract disclosure law is before parliament,

but it is only forward looking. Transparency will improve market efficiency in future. Peer pressure and voluntary agreement may help reveal price information on existing contracts. Another concern is that Landsvirkjun owns 13 power stations and 2 geothermal fields, but its annual reports only show the consolidated financial accounts. Insight into the performance of individual projects—perhaps by designing a holding structure with subsidiaries—would reveal the relevant information to the state as the sole shareholder, both about the market conditions in the power sector and about the performance of the company.

Ownership

128. **Two of the three major power companies in Iceland are publicly owned**. Landsvirkjun is state-owned, Reykjavik Energy is owned by municipalities, and HS Orka is privately owned. Together 92 percent of power generation is in government hands. Government owned enterprises typically have lowering borrowing costs, and soft-budget constraints. They also own a portfolio of hydropower and geothermal resources. If, for these reasons, competition between government and private enterprises is not on level terms, state-owned companies can exhibit excess investment and inefficiency, insufficient private investment will be forthcoming, and potential fiscal costs arise. Landsvirkjun and Reykjavik Energy are heavily indebted, which implies contingent state liability under sovereign guarantees (for which the companies do pay a fee, but it is difficult to tell if that fee has been appropriately priced).

129. **A level playing field for competition between state-owned and private companies is in the public interest**. The benefits would be more efficient investment, and probably lower fiscal cost. The level playing field requires: the same regulations for all producers; clear separation of natural resource ownership from the right to their use; maintenance of equivalent tax treatment; and steps to eliminate taxpayer support for the state-owned enterprises, whether by direct subsidy or differential borrowing costs.

130. **Ownership matters also for the interaction of dividend and tax policies.** To the extent that a government-owned company generates rents from hydro and geothermal energy, it can pay the government through either tax payments or dividends payments. The appropriate mix is a matter of corporate governance. The state can reduce the free cash flow available to management by imposing taxes that directly skim off the rents. Thus, in a scenario where power companies remain predominantly public, taxes remain important. A concern may be the conflicting interest between the state and local governments, as is the case with Reykjavik Energy. Rent taxes on locally owned companies may then require compensation from the state to municipalities.

Recommendations

- Improve transparency of electricity prices and use separating accounts of entities in government-owned power companies.

- Create a level playing field between government and privately owned power companies.

D. Commercial Terms for Electricity in Energy-Intensive Industries

131. **Long-term commitments are critical for both users and suppliers.** Apart from price, power contracts specify the duration and sometimes risk sharing agreements, e.g., by indexing the power price to the price of aluminum. Negotiations on these terms of agreement essentially involve a bargaining over the rent that is generated by the specific investment of the power generator and the user. This rent includes the quasi-rent associated with specific investments by the two parties. As the hold-up problem looms large in such circumstances of specific investment (i.e., investment is held up due to fear of expropriation of the (quasi-) rent by the other party), long-term contracts form an important commitment and enable the investment to take place. The ex-ante bargaining power then determines the terms of the contract. The stronger is the bargaining position of the power generator, the bigger is the share of profit that it obtains.

132. **The terms of historical contracts leave a large share of the rent with the users of power.** In Iceland, the first contracts with large aluminum smelters date back from the 1960s and 1970s. The investments of both the power company and the aluminum smelter were highly specific and parties were bound to one another: the aluminum smelter could not obtain the required electricity from any other supplier in Iceland, while the power company could not sell the large amount of power to any other user. The parties, therefore, committed to long-term agreements of 40 years. They included some risk sharing, whereby the price of electricity was linked to the world-market price of aluminum. As the bargaining position of the user was relatively strong in light of its outside options, the terms of the contracts were relatively favorable for the smelters.

133. **Recent developments tend to improve the position of power companies, leaving them a larger share of the rent.** Since recently, historical contracts have been expiring or the terms of contracts have been renegotiated in light of plant expansions. In these new agreements, the bargaining positions seem to have shifted towards the power generating companies, leaving them with a larger share of the rent. Indeed, recent contracts tend to be of shorter duration, do not always involve risk sharing with the users and feature higher prices. In its latest annual report, Landsvirkjun shows that the average price charged to the aluminum smelters (including transmission) in 2010 was US$25.7 per mwh. This price and the relative stability of the Icelandic contracts make the country a competitive location for smelters, despite that wages and tight environmental regulations create higher costs than in, for instance, China or the Middle East.

134. **The bargaining position of the power companies has also strengthened because of the interest of other industries, such as ferro-metal or data centers.** Contracts with these sectors are generally of shorter duration and feature higher prices. Newly concluded

contracts, also with the aluminum smelters, therefore, contain better terms for the power-generating companies. This is important for the future of Iceland, as the country has abundant new sources of energy, especially in the geothermal area. Indeed, the marginal production cost of new sites is generally in the order of US$30 per mwh, compared to a threefold in mainland Europe.[33] To the extent that the price of carbon will increase in the future in light of tighter policies regarding CO_2 emissions, the competitive position of Iceland will improve further as its power is virtually free from CO_2.

135. **The smelting industry is not uniform**. Some are tolling smelters, not taking title to aluminum (century), while the other major smelters have their own sources of alumina. The key elements of the production process are: electricity, alumina, and carbon anodes. Two tons of alumina are required for each one ton of aluminum. Alumina makes up 12–14 percent of the price of one ton of aluminum. A smelter retains some 75 percent of price of a ton of aluminum, and about 45 percent of the cost in aluminum smelters is electricity. Pricing, taxing, and contractual arrangements for this chain of energy using activities are this critical both for investors and government.

Issues

136. **The electricity price link to the aluminum price causes Iceland to lose out when international energy prices rise faster than aluminum prices**. Iceland's major power generator, Landsvirkjun, assumed more and more of aluminum price risk over the period 1969 to 2006, with increased sales to smelters, and is only now beginning to adjust its portfolio. A greater diversity of projects and pricing schemes in the national portfolio is an important aim.

137. **Electricity prices that are too low would be state aid to energy users under EFTA and EU rules**. The EFTA surveillance authority has so far concluded there is no state aid—costs are recovered and reasonable return earned. This, however, says nothing about transfer of rents to energy users.

138. **There is public concern about the length of electricity pricing contracts** (Power Purchase Agreements—PPA). Despite this, some long-term contracts have been frequently renegotiated—notably Alcan/Alusuisse, now owned by Rio Tinto. Renegotiations have occurred in changing circumstances or at expansion by smelters. The Take or Pay (TOP) guarantee of purchase by smelters has been vital to justify, and support finance for, building the generating capacity.

[33] The most cost-effective projects in Iceland that reap the largest rents have already been undertaken, reflecting decreasing returns to scale in power generation.

139. **In light of these developments, it is timely to design a special tax regime for power generating companies.** Power-generating companies are expected to capture a growing share of the resource rent.

Recommendation

- Introduce a regime for resource taxation as soon as possible.

E. Taxation and Resource Charges for Power-Generating Companies

140. **At present, no significant prescribed levies exist to charge for access to hydro and geothermal resource rights**. The Act of 1998 refers only to "payment of a license fee to meet the cost of the preparation and issue of the license." The Minister for Industry may negotiate remuneration with license holders for resources on land owned by the state, but any payment is subject to the rules of the Act on Public Lands. The committee mandated by parliament has raised the possibility of resource rent tax or charge, levied over the life of a hydro power or geothermal lease. This would introduce to Iceland the type of charge commonly used for exhaustible resource elsewhere in the world, and a variant on the resource rent tax for hydropower in use in Norway.

Issues

Taxing resource rent in stand-alone power projects

141. **Charging for hydropower and geothermal resources involves defining resource rent, and finding a suitable levy to tax it**. This is intrinsically the same as the problem of taxing other natural resources, except that exhaustibility of the resource is arguably not as important. Figure 2 illustrates resource rent. With a fixed price of output (in this case, electricity), P_1, the chart shows projects in ascending order of costs per unit, including a minimum required return to capital. All but Project F are viable, and all that are viable except Project E (which is marginal) generate rent—in the sense of surplus over all necessary costs of production.

142. A **simple extraction levy taxes some rent, but adds to costs**. Figure 3 shows that the flat rate (turnover levy) royalty charge only accidentally taxes the rent in one case: with more profitable projects it taxes insufficiently, while it reduces the feasible range of projects by making Project E now uneconomic. This levy is, of course, warranted where the opportunity cost of exploiting the resource is positive, or where there are significant environmental costs. In these cases, the state will not seek to promote projects that cannot pay, from gross revenues, the cost to society of the development.

Figure 2. Resource Rent

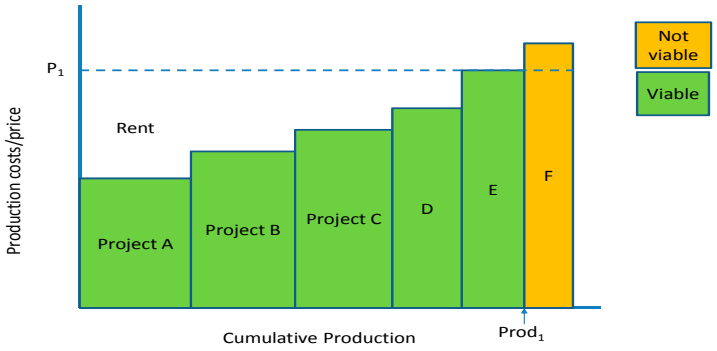
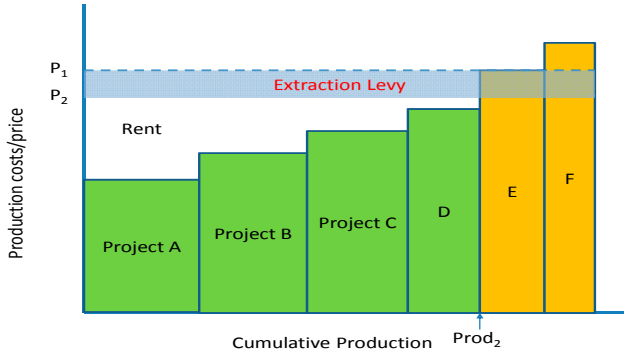
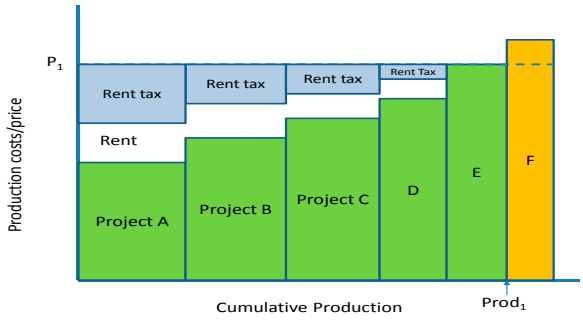


Figure 3. Resource Rent with Extraction Levy



143. **By contrast, a well-designed resource rent tax targets the rent in each case more precisely**. Levied on net cash flow, or adjusted profit, above certain thresholds a rent tax should adjust to the realized profitability of individual projects. It does not require a prediction of the future course of prices, but it does require that the price of electricity be transparent and measurable. Using the same framework, Figure 4 illustrates resource rent taxation. Project E is now viable again, so that the tax does not disturb the pre-tax economic feasibility of projects, while capturing more of the overall rent than an extraction levy.

Figure 4. Resource Rent Taxation



144. **From a range options, two forms of rent tax appear most suited for use in Iceland.** Box 2 describes the principal forms of resource rent tax proposed or in use around the world. The "Brown Tax" or R-based cash flow tax is neutral but requires government to meet its share of negative cash flows as well as tax the positive ones. The resource rent tax proposed by the committee approaches neutrality if failed exploration (research or survey) is refunded, but the immediate deduction of capital, coupled with annual uplift of unrecovered accumulated negative cash flows, will cause long deferral of potential revenues. The variable income tax (similar to that now proposed for offshore petroleum) is too likely to tax elements of profit that are not rent, and is in any case unsuited to industries where wide price fluctuations are not expected. This leaves: (1) the simple cash flow surcharge in the corporate income tax; or (2) the surcharge calculated on the CIT base, with an allowance for corporate capital (ACC) replacing interest deductions and providing for a return on equity.

145. **Modeling results suggest a balanced overall package**. The appendix shows modeling results for a hydropower and a geothermal energy project under alternative resource tax schemes. The schemes illustrated are: the resource rent tax (RRT), the tax surcharge on cash flow (termed a cash flow tax), and the ACC sheme adapted from the Norwegian rent tax on hydropower. In the simulations, a package combining a 5 percent extraction levy and an 18 percent cash flow surcharge produces acceptable results. Alternatively, a tax surcharge of 27 percent with a 5 percent allowance for corporate capital (ACC) for the undepreciated asset value—along the lines of the Norwegian tax on the hydropower sector—yields an acceptable balance between upfront revenue, progressivity, and minimal investment distortion.

Box 2. Resource Rent Taxation Options

Brown Tax or R-based cash flow tax. This is a pure rent tax in which the state acts as a passive investor, meeting its share of all net negative cash flows by direct cash payment at the same percentage as the tax rate, and taxing all net positive cash flows at the same rate. The tax only narrows the distribution of possible outcomes, but does not change the mean expected return—any tax paid is thus a tax on rent. Accounting and tax depreciation do not feature: all capital is immediately expensed, so that calculations are on cash flows.

Resource rent tax (Garnaut/Clunies Ross model). This replicates many features of the brown tax, but instead of direct cash payments by the state, the investor receives an annual uplift on accumulated losses until these are recovered. The uplift rate should be set at the minimum required rate of return for the investor. To the extent that losses can be offset against profits elsewhere, the tax comes closer to neutrality and, in principle, the uplift factor should come closer to a risk-free interest rate. Again, the calculations use cash flows, not book or tax depreciation.

Variable income tax (VIT). This scheme uses the CIT base, but varies the rate of tax according to the ratio of profits to gross revenues. The VIT is proposed for use with offshore petroleum in the second licensing round. It developed first in the gold mining industry of South Africa, where the effective tax rate may be lower or higher than the standard CIT base. The VIT is relatively simple but introduces distortions, particularly when a period of high accounting profit occurs early in the life of a project causing tax to rise well before the required return has been earned, or rent generated.

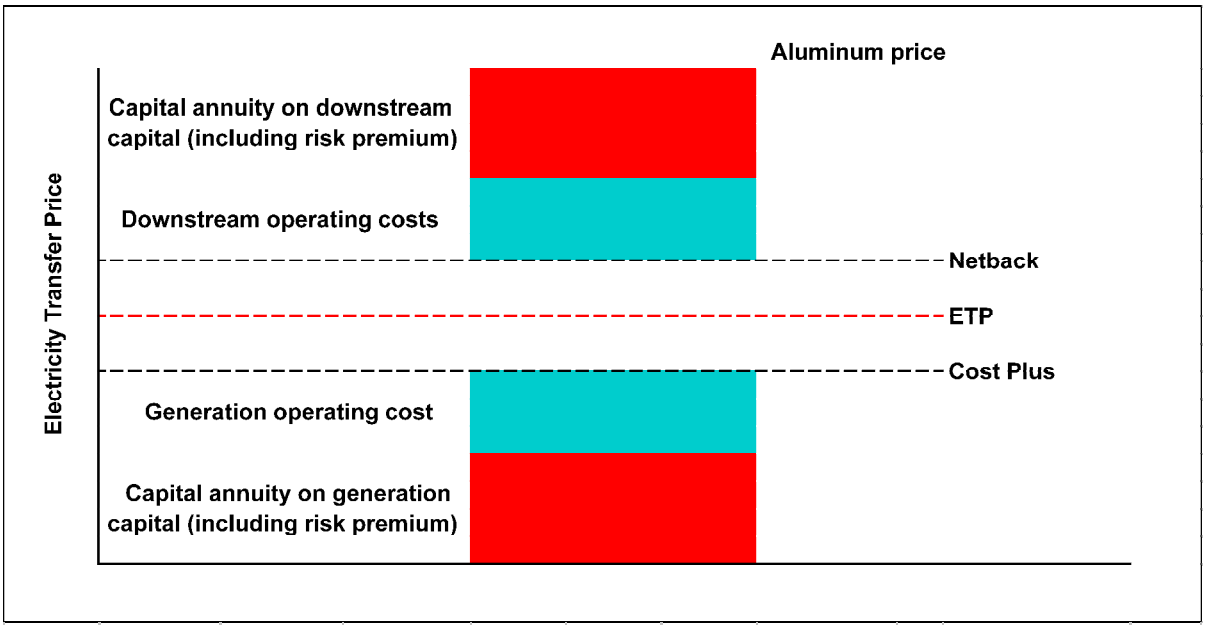
Tax surcharge on cash flow. A simple adjustment to the tax base of accounting profit by adding back depreciation and interest, and deducting any capital expenditure in full, yields a base of net cash flow in the year. This, too, could form the base for a surcharge. Instead of permitting an annual uplift for losses carried forward, the rate could be set sufficiently low to imply such compensation, or a simple uplift (investment allowance) could be added to capital costs at the start. This surcharge is used in the U.K. sector of the North Sea as a CIT surcharge on petroleum projects (rate from 2011/2012 is 32 percent, in addition to normal CIT).

Allowance for Corporate Capital (ACC) surcharge scheme. Instead of converting the tax base to cash flow, the ACC permits an annual uplift on the balance of undepreciated capital assets on the books. Actual interest paid is not deductible. The ACC, therefore, creates neutrality between debt and equity financing, and should make the investor indifferent as to the rate of tax depreciation (since faster depreciation diminishes the money amount of ACC deductible). The Norwegian hydropower rent tax uses this scheme, with a rate of 30 percent added to the CIT rate of 28 percent.

Taxation of integrated projects

146. **Iceland at present has no integrated power and smelting projects, but these could arise in future**. If they do, and resource rent charges have been introduced, there are two options for applying these to cases where the project is integrated from generation of power through to production of aluminum. One is to levy the resource charge on the whole integrated enterprise, at a rate designed to approximate the charge on rent in a stand-alone generating project. The other is to create notional separation of the accounts of the power segment and the smelting segment, attributing as the electricity transfer price a combination operating costs plus capital recovery with a reasonable return in each segment. A formula can then attribute any difference between the resulting prices to each segment. In Figure 5, the assumption is of an equal division of the “residual price”.

Figure 5. Pricing of Electricity by Capital Attribution and Division of Residual



Application to existing projects

147. **Application of rent tax to existing projects would not affect electricity prices under long-term contracts**. There would thus be no implications under the stability provisions of investment agreements for smelters. The extraction levy would clearly affect the economics of existing power companies, and might need to be phased in over time. The resource rent taxes proposed would have very little effect, except to the extent that they inhibit retention of rent as profit to pay down debt. If this occurs, then for the state-owned enterprises the government has the option of dedicating the tax receipts initially to restructuring the debt position of these enterprises.

148. **Application of the tax again requires segregation of the accounts of generation for sale to power-intensive users**. The aim is not to impose the rent tax on all existing operations of large companies such as Landsvirkjun; conversely, capital for other activities should not enter into the deductions for major hydro and geothermal projects.

149. **Opening negative balances for existing projects should use written down asset values**. Where historical accounts do not permit calculating of project life-cycle positions, the written-down value of assets for tax purposes should be the starting balance, possibly with a predetermined one-time uplift to act as a proxy for returns to capital that would have been available under one of the schemes in the past. Operating losses carried forward should, in principle, be deductible.

Recommendations

- Adopt an extraction levy of on electricity sales; adjust the levy in specific cases for the estimated environmental costs.
- Adopt a resource tax for access to rights, either by means of a cash flow tax surcharge scheme, or an ACC scheme.
- If the cash flow surcharge is adopted, consider adding a one-time uplift for capital investment.
- For integrated projects, review the feasibility of overall rent taxation, or of a capital attribution and residual pricing mechanism to establish the transfer price of electricity.
- For existing projects, use written down asset values for tax purposes, possibly with a one-time uplift, to establish the starting tax base.

F. Taxation of Energy-Intensive Industries

150. **The motivation for promoting energy-intensive industries has changed since the sector first developed**. Originally, the Icelandic authorities aimed to attract foreign investment to increase the size of the economy and improve infrastructure, even if only a modest numbers of jobs created were as a result. More recently, and especially since the crisis of 2008, these large industries have been subject to greater scrutiny of the observable benefits they bring to the Icelandic economy: especially in public revenue, stimulation of local supplies and services, and transfer of skills to the Icelandic workforce and entrepreneurs.

151. **Existing energy-intensive industries are protected by investment agreements with tax stability provisions**. The initial agreements for Alusuisse, Alcoa, (for aluminum smelting) Union Carbide (for ferro-silicon processing) and others all differed case-by-case. At least one of the older agreements (Alusuisse—agreement now defunct) provided for payment by the smelter company of a "consolidated tax" set in dollar amounts per ton of aluminum produced instead of corporate income tax, together with a positive list of minor taxes. The present owners of this smelter (Rio Tinto) decided to move away from these earlier arrangements to the new scheme described next. Some of the earlier agreements took account of a more highly-tax environment than now prevails, so that the value of the stability assurance diminished over time.

152. **Special limitations apply in the 2003 agreement for the largest smelter**. The agreement for Alcoa limits the rate of income tax to 18 percent, allows full depreciation of assets (no 90 percent restriction), and limits tax on dividends paid to a 25 percent shareholder to 5 percent. It also explicitly preserves the rules on deductibility of interest available at the

time of the agreement. These provisions prevail for the "initial term" of 20 years. Alcoa (as in other cases) may make a one-time election to move from the special provisions to the general tax law.

153. **Government moved in 2008 to standardize the incentive package to all industries**. The new package was drawn up under EU/EEA rules, and limited the amount of "state aid" to a large enterprise to a present value of benefits (including tax foregone) of 15 percent of the initial investment cost.[34] Some incentives are generally available; others are limited to areas covered in the regional aid map (currently most of Iceland outside Reykjavik). An agreement is still made when an incentive is granted: one of the most important incentives is the assurance that the applicable tax rate will not rise above that prevailing at the time of the agreement; this cannot be quantified in advance. Other incentives include discounts on property tax and social security contributions. This law expires on December 31, 2012, but agreements made under it will be valid for 13 years from signature.

154. **Power companies have taken advantage of expansion plans at smelters to renegotiate PPAs**. Fiscal stability provisions do not guarantee stable operating costs. Conditions may arise (as happened with Rio Tinto) when it is in the mutual interest of government and companies to move beyond an original special agreement on fiscal terms.

Issues

155. **Energy-intensive companies appear to contribute relatively little to public revenue**.[35] Manufacturing as a whole contributed 6.6 percent of CIT receipts in 2009 (and similar proportions in previous years); the energy-intensive companies fall within that group. The exemptions and privileges under the investment agreements do restrict the national contribution that these projects make—begging the question of whether these projects would have gone ahead without such incentives. It seems likely that the availability of cheap and reliable electricity, in a stable environment that is part of the EEA, had more to do with the investment decisions than fiscal incentives.

156. **The way to extract rent for the nation is through competitive pricing of electricity**. Electricity prices in recent PPAs have increased, and high aluminum prices currently allow power companies to participate in increased revenues where aluminum-related pricing of power prevails. Development of the electricity market, with new pricing

[34] Act on incentives for initial investments in Iceland.

[35] Although the mission received no official figures, the Association of Aluminum Smelters has indicated that the sector paid ISK 4.2 billion in taxes in 2010 (0.26 percent of GDP)—it is not clear whether this figure is the sum of all taxes, including SSC.

schemes, together with appropriate charges for resources, offers a quicker and more reliable route to enhanced public revenues than undertaking revision of tax terms for smelters.

157. **Stability and credibility of the tax regime for large-users is important to continued investment and third-party financing**. Whether this is best promoted by formal agreements with assurances of fiscal stability may be an issue. For the present, it would be preferable to permit the current incentives legislation to expire at the end of 2013, while (in accordance with law) preserving agreements made under it and under prior terms. Where there is occasion by mutual agreement, and in the mutual interest, for government to encourage companies to move on to general tax terms (particularly in terms of allowable deductions, if not of tax rates), those opportunities should be taken. Meanwhile, government should set out long term plans for stable and credible arrangements for resource taxation, electricity pricing, and overall taxation of business.

Recommendations

- Avoid sudden measures to increase fiscal levies on energy-intensive industries; focus instead on securing fair market value for electricity sales.

- Allow existing incentives legislation to expire as scheduled, without replacement, and allow investment agreements to expire as agreed.

- Consider elimination of tax stability assurances for new projects in future, or at least limiting them to rates of specific taxes rather than to deductions and tax calculations in general.

G. Taxation of Offshore Petroleum Resources

158. **The fiscal terms of 2008 contained a high progressive extraction levy**. This levy applied to gross revenues at a rate determined by multiplying the excess production over 10 million barrels by 0.5.[36] The terms also included a hydrocarbon tax, applicable when profits reached 20 percent of operating income, and replacing the extraction levy at that point. The tax base restricted interest deductions to 5 percent of liabilities, and excluded deduction of rental payments exceeding normal depreciation and interest for the assets concerned. The tax rate was to be the profit ratio (as a percentage) minus 10 percentage points, multiplied by 0.55. Normal CIT was also payable.

[36] Act No. 170/2008 on the taxation of hydrocarbon extraction. This, if 50 million barrels were produced in a year, the levy rate would be (50 – 10) = 40 * 0.5 = 20, applied as a 20 percent levy on total revenues (unless the first 10 million barrels are excluded—the translation is ambiguous.)

159. **Proposed new fiscal terms for a second licensing round eliminate the progressive extraction levy.** Instead a flat levy (royalty) of 6 percent is proposed. Once again, in addition to normal CIT there will be a special hydrocarbon tax. This again takes the profit to revenue ration, expressed as a percentage, and then multiplies by 0.45 to find the tax rate.

Issues

160. **The terms of the 2008 legislation clearly required revision.** The mission was advised that, in formulating new terms, the authorities took account of comparators in Norway, Faeroe Islands (Denmark), and Greenland. The new regime is intended to be more generous to investors than Norway's, and to remain approximately competitive with those offered in Faeroes and Greenland. The comparisons have been done using a time path of revenues on a simulated field.

161. **This procedure reasonably compares overall government take, but is less helpful in assessing the effect on investors' perceptions of risk.** For example, Iceland's new terms will contain a 6 percent extraction levy, whereas Norway's contain no such levy. Norway's terms are not ring-fenced, and unrecouped losses are refunded. The ring-fencing provisions in Iceland appear to be limited to deduction of failed exploration, and there is no provision for refund of losses. Norway may, therefore, take more from a successful project, but its favorable treatment of losses reduces investor risk compared with the terms in Iceland.

162. **In Iceland's circumstances a 6 percent royalty is probably appropriate, as is a different scheme from that in Norway.** Although Faeroes has only 2 percent royalty, and Greenland none, any discovery in Icelandic waters that is commercial is likely to be sufficiently attractive to meet a 6 percent royalty, especially if other taxes remain significantly below those of other producers in the region. Iceland can expect only a limited number of discoveries on present knowledge, so ring-fencing project-by-project is appropriate. The government is not in a position to take exploration and project risk by offering refunds of the tax value of losses.

163. **The special hydrocarbon tax scheme could be reconsidered.** The mission was advised that the authorities have no interest in a rate of return scheme. Other simpler alternatives exist to the proposed hydrocarbon tax design, which run less risk of taxing returns that are normal profits (not rents) than the scheme currently proposed. These include the cash flow surcharge (used in the U.K. sector of the North Sea at a 32 percent rate), and the ACC scheme for a surcharge on CIT. Both these options have been discussed above.

164. **In the first licensing round, the authorities required single companies (not unincorporated joint ventures—UJV) to hold licenses**. Although this is not required under the petroleum law (which provides for joint ventures) the mission was advised that the revenue authority (RSK) had insisted upon the condition for fear of tax avoidance. This position misconceives the role of UJVs in the petroleum industry, where the practice is standard. From government's point of view, UJVs have great advantages in containing costs

and preventing tax avoidance. They introduce adverse interests to the venture, where the non-operator parties have a strong interest in seeing that the operator contains costs. Furthermore, each party to the UJV (and thus the license) has a strong interest in seeing that the others comply with the law.

Recommendations

- Revise the petroleum fiscal terms to include an extraction levy at a modest flat rate, normal CIT, and a simple special hydrocarbon tax.
- Consider a different model for special hydrocarbon tax (not geared to a profit ratio calculation), such as a cash flow surcharge or an ACC scheme.
- Permit unincorporated joint ventures to apply for and hold petroleum licenses.

Appendix I. Summary of Recommendations
M = Medium Term; S = Short Term (within 1 year); I = Immediate

Time Frame	Recommendation	Revenue
Corporate income tax		
M	For companies, income tax assessment should follow the valuation provisions used in the financial accounting rules.	
S	The temporary provision regarding relief for debt forgiveness should be extended to cases in which debt restructuring has taken the form of conversion of debt into equity.	–
I	Limit debt-financed acquisitions by non-residents by disallowing deductibility of interest paid to creditors resident in low tax jurisdictions, and by introduction of a thin capitalization rule (as discussed in the previous FAD report).	+
I	The 20 percent withholding tax on gross interest payments to corporate creditors and non-resident creditors should be reduced to 10 percent.	–
S	Consider abolishing the threshold of 10 percent shareholding and apply an exemption for all dividends received by Icelandic corporations.	–
S	The dividend exemption should be limited to 95 percent of the amount received to allow for a small taxable portion to offset participation-related expenses.	–
M	Allow the general investment incentive package to lapse upon expiry.	+
M	Keep the R & D credit under review, to monitor its effectiveness.	
Taxes on labor income		
S	Capital income allocation rules should be the same for partnerships and closely-held corporations.	
S	Income should be allocated between labor and capital within closely held businesses according to the net or gross assets method.	+
M	However, if the minimum wage system and/or the 20/50 split is retained, minimum wages should be reset using a comprehensive study that employs the gross or net assets method to measure labor income, and the minimum wage should be annually indexed.	

Time Frame	Recommendation	Revenue
S	The government should clarify whether SSC charges apply to the 50 percent labor allocation.	+
S	A definition of closely-held business should be included in the income tax act, based upon the number of active shareholders and their joint shareholding.	
S	Do not increase the basic tax credit for the PIT. Consider lowering both the tax credit and the initial PIT rate in a revenue-neutral manner.	+
S	Eliminate the first 2.9 percent surcharge and replace the second 6 percent surcharge with a single 10 percent surcharge levied on above-average incomes.	0.25 percent
M	Reduce the rate of social security contributions as much as possible, given expected unemployment and any increase in the SSC base.	–
M	Consider capping the base of the SSC at a certain level of earnings for both salaried and self-employed workers.	–
M	Consider placing an absolute cap on annual or lifetime tax deductions for voluntary pension contributions.	+
Capital income and wealth taxation		
M	Allow the net wealth tax to expire, and replace the revenues with a combination of higher property taxes and a broader and more progressive personal income tax.	-0.30 percent
Value-added tax (VAT) and excises		
	Short term	
S	Increase the lower rate of the VAT to 14 percent and tax non-standard exemptions at the lower rate.	0.70 percent
S	Lower the main rate of the VAT to 25 percent.	-0.10 percent
S	Compensate lower-income households for higher costs of necessities through refundable income tax credits.	-0.10 percent
	Medium term	
M	Tax all items at a unified rate of 20 percent.	0

Time Frame	Recommendation	Revenue
S	Eliminate the excises on food products as part of a broader reform of the VAT.	
Allocation of tax revenues to municipalities		
S	Increase the cap on "Group A" property tax rates to at least 1 percent.	+
S	Consider setting minimum rates of property tax for local governments.	+
Taxation of the financial sector		
M	Maintain the bank tax introduced in January 2011.	
S	Modify the balance sheet base on the liabilities side, excluding equity capital, by allowing for a credit for payments in respect of insured liabilities.	–
M	Consider including off-balance sheet derivatives in the tax base.	
M	Consider, over the medium term, adjusting the rate to address institutions' specific risks and their contribution to systemic risk.	
M	Consider abolishing the reverse charge on self-supply by financial institutions and introduce a tax on the profits and remunerations of financial institutions.	+
S	Consider abolishing the 20 percent withholding tax on derivatives, except for the implicit interest element in swap agreements or other derivatives.	–
S	Restrict any tax on real estate transactions to at most 1 percent	–
Environmental taxation		
M	Maintain the energy tax beyond 2012 and consider a small increase for households and other small consumers.	0.05/-0.10 percent
M	Consider the future electricity tax for power-intensive industries in the broader context of the taxation regime for these firms.	
M	Maintain the carbon tax beyond 2012 and extend it to sectors not be covered by the EU ETS, such as the cement sector.	0.25 percent

Time Frame	Recommendation	Revenue
S	Increase the carbon tax rate to the price of carbon in the EU ETS.	0.06 percent
M	Consider introducing taxes on NOx and SO_2.	
S	Bring taxis and rental cars under the regime for excise duties as other passenger cars.	+
S	Introduce an excise on vehicles that are currently exempt from the vehicle excise duty.	+
S	Increase the excise rates on petrol and diesel by ISK 20 in real terms if circumstances permit.	0.4 percent
M	Consider the introduction of corrective taxes on landfill and incineration, following the systems in the Nordic countries.	+
S	Introduce the proposed ecological passenger tax, differentiated by distance travelled.	+
Taxation of natural resources		
S	Move in steps towards consolidation of publicly-owned resource rights into a single entity.	
S	Prepare for resource allocations by auctions and by transparent comparison of proposals; consolidate resource assessments into packages of resource leases that are offered for investment projects.	
M	Link the duration of leases to the flexibility of resource charges; continue to grant easily renewable long leases where a progressive resource charge is applied.	
S	Set the base extraction levy in relation to anticipated environmental costs; make additional extraction levy a bid variable at auctions.	
S	Introduce a resource charge geared to the achieved results of a project.	
M	Permit transferability of rights, to affiliates, upon sale or farm-in, and for third party financing, subject to regulatory safeguards.	
M	Improve transparency of electricity prices and use separating accounts of entities in government-owned power companies.	

Time Frame	Recommendation	Revenue
M	Create a level playing field between government and privately owned power companies.	
S	Introduce a regime for resource taxation as soon as possible.	
S	Adopt an extraction levy of approximately 2.5 percent of electricity sales; adjust this in specific cases for the estimated environmental costs.	+
S	Adopt a resource tax for access to rights, either by means of a cash flow tax surcharge scheme, or an ACC scheme.	+
S	If the cash flow surcharge is adopted, consider adding a one-time uplift for capital investment	
M	For integrated projects, review the feasibility of overall rent taxation, or of a capital attribution and residual pricing mechanism to establish the transfer price of electricity.	
S	For existing projects, use written down asset values for tax purposes, possibly with a one-time uplift, to establish the starting tax base.	
M	Avoid sudden measures to increase fiscal levies on energy-intensive industries; focus instead on securing fair market value for electricity sales.	
M	Allow existing incentives legislation to expire as scheduled, without replacement, and allow investment agreements to expire as agreed.	
M	Consider elimination of tax stability assurances for new projects in future, or at least limiting them to rates of specific taxes rather than to deductions and tax calculations in general.	
S	Revise the petroleum fiscal terms to include an extraction levy at a modest flat rate, normal CIT, and a simple special hydrocarbon tax.	
S	Consider a different model for special hydrocarbon tax (not geared to a profit ratio calculation), such as a cash flow surcharge or an ACC scheme.	
S	Permit unincorporated joint ventures to apply for and hold petroleum licenses.	

Appendix 2 . Simulating Tax Regimes for Hydro and Geothermal Energy

The generation of hydroelectric power and geothermal energy can yield economic surplus over and above the value of the production factors used. With several power projects featuring different costs of production, and a single market price at which the power is sold, there will be a marginal project that just breaks even. All other projects featuring lower unit production costs will generate economic rent. In principle, one can calculate the total rent from power generation using information about the cost structure of the average power plant and the appropriate price at which power is sold in the market.

Determining the rent from hydro and geothermal is difficult, as power prices in Iceland differ greatly, and so do cost structures. Choosing the output price would be obvious if there were a spot market for electricity sales, as is the case in the Nord Pool market in Scandinavia. Iceland has no such pool or price. Cost structures also differ significantly across projects, with the least-cost options already developed.

Studies for Canada and Switzerland have tried to calculate the rent from hydropower, with very diverse outcomes. Gillen and Wen (2000) compute the rent for an Ontario hydro plant. They take the price of electricity from recent export contracts—at that time US$41.06 per mwh; the average cost comes from the annual accounts of a hydropower company, estimated at US$7.18 per mwh (including the cost of capital). The rent per mwh is thus calculated at US$33.88, about 80 percent of sales revenue. An earlier study for Canada by Bernard, and others (1982), however, estimated the rent at a much lower US$9.68 per mwh—there were much larger unit production costs (using alternative technologies). Here the rent is only about 20 percent of the revenue. Banfi, and others (2005) estimate the rent in the Swiss hydropower sector by taking the average price and average cost of a large number of plants. They distinguish between run-of-river plants and storage plants. Storage plants can easily produce electricity during more lucrative peak periods. The average price for the run-of-river plants is, therefore lower (€36.40 per mwh) than for storage plants (€62.40 per mwh). The unit cost for the two types of plants is, respectively, €26.50 and €39.00 per mwh. Here rent per mwh is €10.70 and €22.80 per mwh respectively—between one-third and one-half of the unit costs.

These calculations suffer from several other limitations. Determining the appropriate price and unit cost is far from trivial and difficult. A comprehensive analysis should include the value of hydropower sites in alternative use, and positive or negative externalities from developing a hydro project. Nevertheless, it seems evident that significant rent is generated from the exploitation of hydropower.

Countries adopt a variety of taxes to skim off the rents from hydropower. Switzerland, Canada, and France levy water charges as a fixed amount per mwh of electricity produced. Rates run up to more than €9 per mwh in France. Norway introduced a hydro rent tax in 1997—additional to the regular CIT. Its base is total sales minus operating costs,

depreciation (1.5 percent for installations and 2.5 percent for equipment) and an uplift of 5 percent of the undepreciated asset value in the tax accounts. This base reflects the rent, as the full cost of capital (depreciation and finance) is deductible. The rate of tax is 30 percent.

We simulate two projects that broadly reflect Icelandic data for a hydro project and a geothermal project. Data come from annual reports of Landsvirkjun and Reykjavik Energy. The hydroproject involves relatively high investment costs, but has lower operating costs; the geothermal project involves lower investment upfront, but has a shorter lifespan and higher operating cost. (Table 8.) Both projects turn out to be profitable at a 5 percent discount rate. The pre-tax internal rate of return of both projects—the discount rate at which the project would just break even—is 10¾ percent.

Table 8. Assumptions about Two Simulated Power Projects

	Hydropower project	Geothermal project
Capacity	100 mw	100 mw
Production per year	825 gwh	825 gwh
Capital expenditure	US$153 million (Yr 1, 50; Yr 2, 50; Yr 3, 50)	US$120 million (Yr 1, 50; Yr 2, 50; Yr 10, 10; Yr 20, 10)
Operating cost	US$10 per mwh	US$15 per mwh
Sale price	US$30 per mwh	US$30 per mwh
Project life	55 years	35 years
Assumed discount rate	5 percent	5 percent
Internal rate of return	10¾ percent	10¾ percent

For both projects, we simulate the implications of five alternative tax regimes. The regimes all contain the conventional corporate income tax (CIT) of 20 percent. In addition, we consider the following additional taxes.

- A royalty (or water fee) of 10 percent of sales (approximately US$3 per mwh).
- A Resource Rent Tax (RRT) of 38 percent. The CIT is deductible for the RTT. The RTT is levied as soon as the net present value of net cash-flows, evaluated at a 5 percent discount rate, becomes positive.

- A Cash-Flow Tax (CFT) of 21 percent. The CIT is not deductible for the CFT, nor is the CFT deductible for the CIT. The loss-carry forward period in the CIT applies also to the CFT.

- A combination of a royalty of 5 percent and a RRT of 18 percent.

- A Norwegian Resource Rent Tax (NRRT) of 27 percent, applied to the CIT base without a deduction for interest, but instead a 5 percent uplift for the undepreciated value of capital.

The five tax regimes yield the same amount of public revenue under the hydroproject, but the timing of revenue is very different. Figures 6 and 7 show this for the hydro and geothermal project, respectively. The dashed area in both figures shows the net cash flow. All projects quickly yield revenue from the 20 percent CIT rate. The royalty yields the highest revenue in the early years, not increasing in later years. The RRT only starts to raise revenue after 16 years when it has obtained a return of 5 percent. Beyond this year, however, revenue is considerably higher than of any other tax. The cash-flow tax and the Norwegian RRT take intermediate positions. The CFT starts to raise revenue after 10 years when the loss-offset period expires. The NRRT raises revenue earlier and increases gradually in time as the capital stock depreciates. A combination of a royalty and RRT lies between: yielding some revenue upfront (from the royalty) and a larger amount in later years (from the RRT).

Figure 6. Hydroproject Pre-tax Cash Flows and Government Revenue Profile

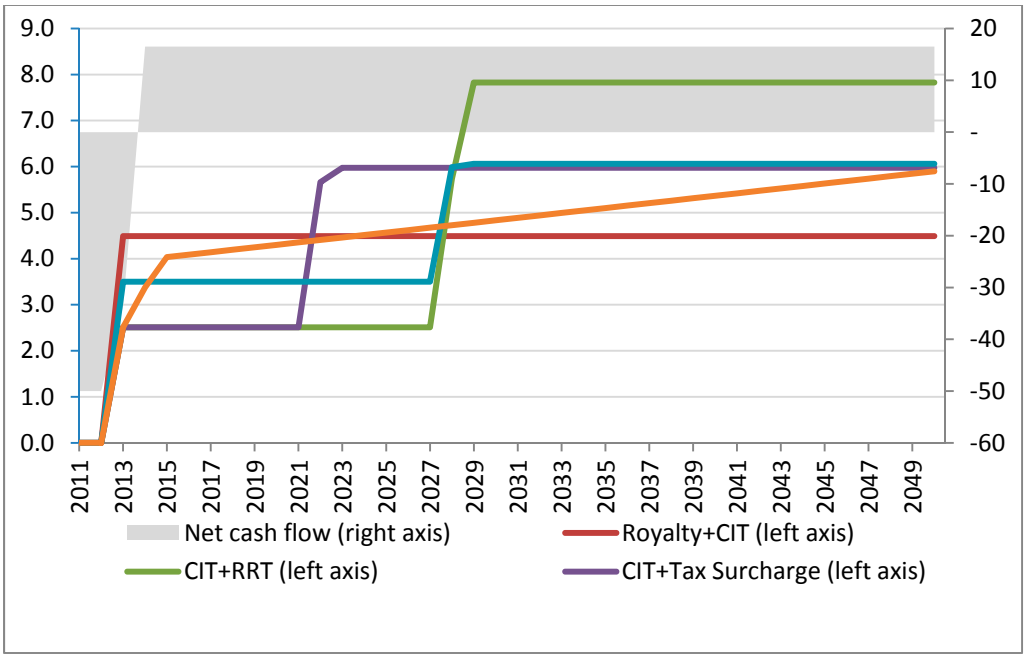
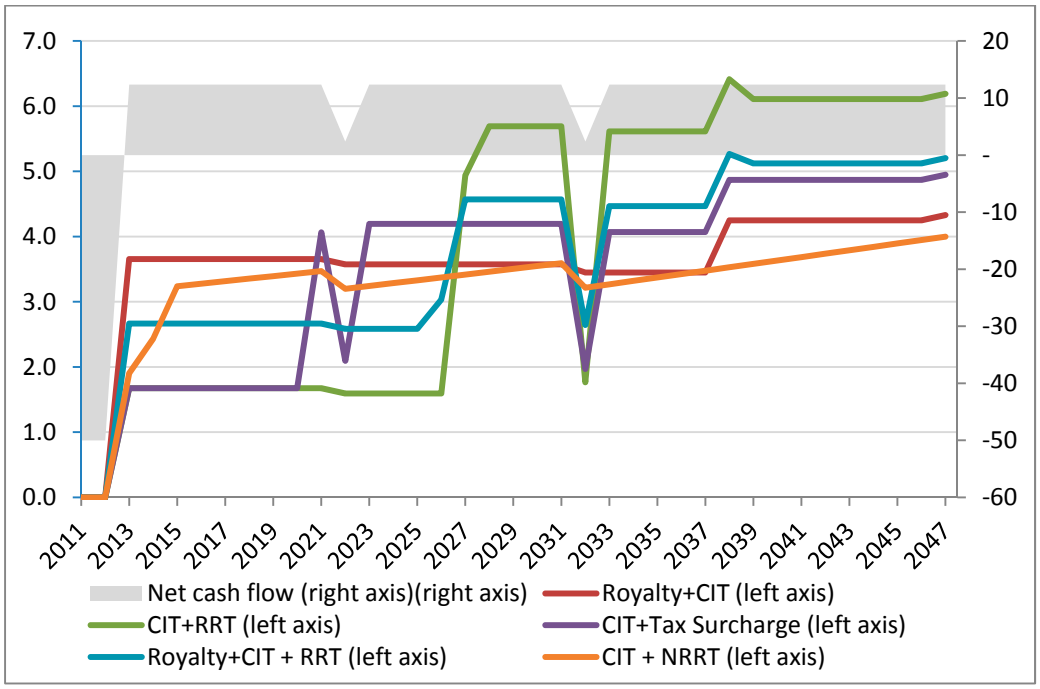


Figure 7. Geothermal Project Pre-Tax Cash Flows and Government Revenue under Five Tax Regimes ($mm real 2011 terms)



The royalty distorts investment decisions most and the resource rent taxes distort them least. This is reflected in the marginal effective tax rates (METRs), which measure the tax burden on the project if it just breaks even (Table 9).

Table 9. METRs under Five Regimes for Hydro- and Geothermal Projects

	Hydro project	Geothermal project
CIT + Royalty	24.0	27.6
CIT + RTT	21.0	24
CIT + CFT	22.2	25.2
CIT + Royalty + RTT	22.7	25.7
CIT + NRRT	22.0	25.7

The royalty is the least progressive and the resource rent tax the most progressive. Figures 8 and 9 show this by relating the government revenue generated to the profitability of the projects (measured by IRR and varied by assuming a gradually higher sales price of electricity (from left to right)). Both figures show that the royalty rises in profitability, but only mildly (it would be flat if the water charge were levied as a fixed fee per mwh, as is

done in Canada, France, and Switzerland). The RRT is the steepest as it charges the highest rate on the rent once it materializes. The other taxes lie between.

Figure 8. Geothermal Project Tax Progressivity (Correlation of Government Revenue and Profitability (Measured by IRR))

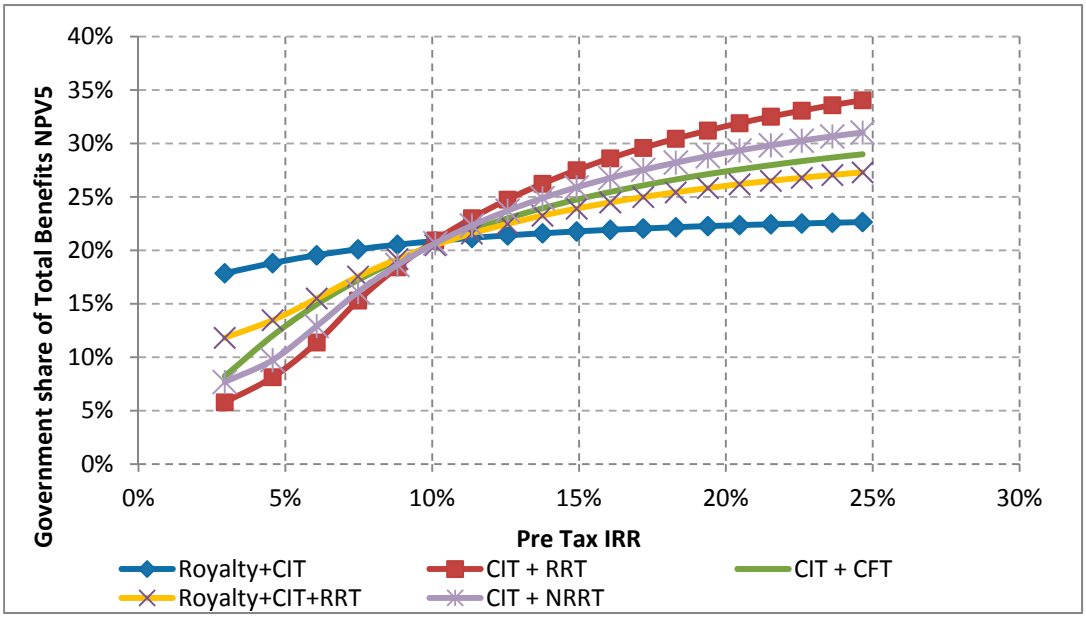
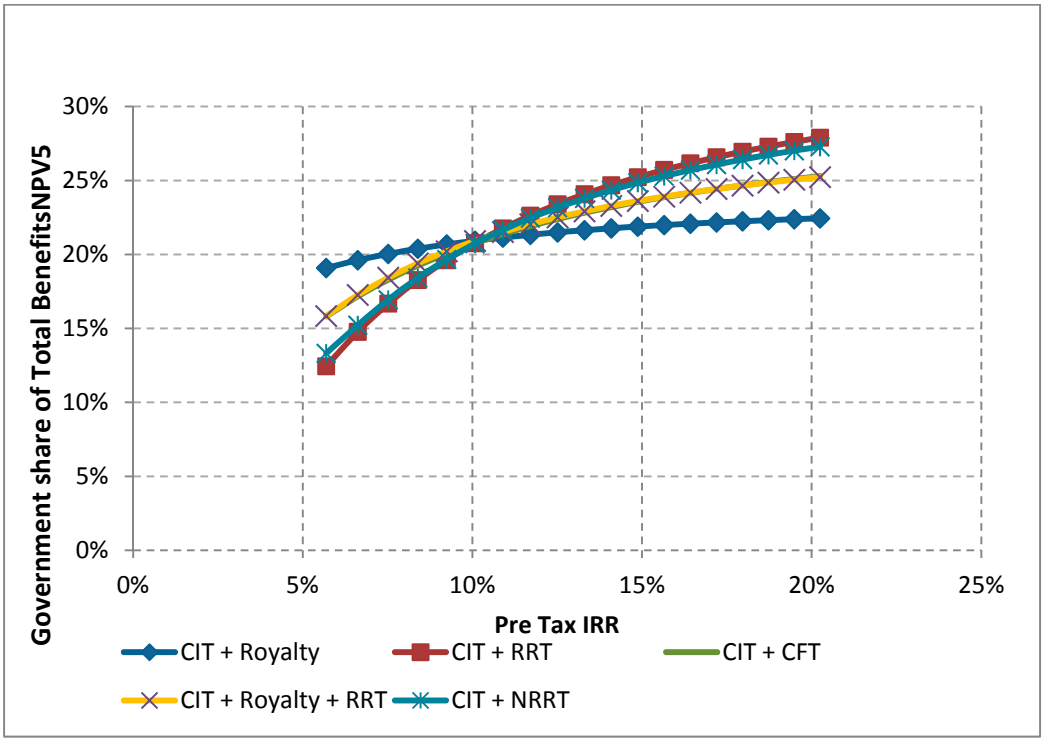


Figure 9. Hydro Project Tax Progressivity (Correlation of Government Revenue and Profitability (Measured by IRR))



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