New era. New plan.

TAX REFORM FOR AN INCLUSIVE, CIRCULAR ECONOMY

Femke Groothuis
The Ex’tax Project
www.ex-tax.com
www.neweranewplan.com
How to align our tax code with inclusive circular growth?
Labour taxes: incentive to minimize number of staff
Natural resource taxes low: unrestrained use
tax on labour down

tax on resources up
“The tax burden must be redistributed so as to lighten the burden on labour and increase the burden on the use of natural resources.”

“a winning strategy“

European Commission (2015)
€ 5.4 trillion per year
EU labour taxes: 51% of tax revenues

PIT, SSC, payroll taxes
20.9 Unemployed
9.5 Underemployed part-time workers
8.8 Available to work (but did not look a job)
2.3 Looking for a job without (being able to start working within a short period)
41.5 Total

EU ‘green’ taxes: 6% of tax revenues
Tax on pollution, natural resources: 0.2%
Global fossil fuel subsidies
$325 billion per year

Double the value of renewable energy subsidies

IEA
Linear economy
Circular economy
What about robotization?
Challenges (a.o.)

- Short-termism
- Tax competition
- International cooperation
- Addressing multiple ‘wicked problems’
“environmentally related taxes can play an important role in growth-oriented tax reform by helping to shift part of the tax burden away from more distortive corporate and personal income taxes and social contributions.“
(a.o)

- Sweden (1990)
- Denmark (1993)
- The Netherlands (1996)
- Finland (1997)
- Slovenia (1997)
- Germany (1999, 2007)
- UK (1996, 2001)
- British Columbia - Canada (2008)
- Colombia (2012)
Review of 186 model simulations

“on average, all predicted net job creation with significant CO2 reductions”

Ex’tax working group since 2011
New era. New plan.
FISCAL REFORMS FOR AN INCLUSIVE, CIRCULAR ECONOMY

Case study the Netherlands

The Ex'tax Project
in cooperation with
Deloitte, EY, KPMG Meijburg and PwC
Partners in this research
New era. New plan.
EUROPE

A FISCAL STRATEGY FOR AN INCLUSIVE, CIRCULAR ECONOMY

The Ex'tax Project
in cooperation with
Cambridge Econometrics, Trucost,
Deloitte, EY, KPMG Meijburg and PwC
Methodology

Step 1: Data collection
Step 2: Tax base options
Step 3: Focus group of tax bases
Step 4: Focus group of policy options
Step 5: Detailed exploration
## Resource Use

### €554 billion increase

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fossil fuels</td>
<td>290.5</td>
</tr>
<tr>
<td><strong>Excise duty on transport fuels</strong></td>
<td>256.4</td>
</tr>
<tr>
<td>(gasoline, diesel, €0.50/l)</td>
<td></td>
</tr>
<tr>
<td><strong>Excise duty on aviation fuel</strong></td>
<td>33.2</td>
</tr>
<tr>
<td>(€0.30/l)</td>
<td></td>
</tr>
<tr>
<td><strong>Excise duty on natural gas</strong></td>
<td>0.9</td>
</tr>
<tr>
<td>(€7.80/MWh)</td>
<td></td>
</tr>
<tr>
<td><strong>VAT</strong></td>
<td>143.9</td>
</tr>
<tr>
<td><strong>Standard rate up (to 21%)</strong></td>
<td>111.2</td>
</tr>
<tr>
<td><strong>Reduced rate up (to 10%)</strong></td>
<td>32.7</td>
</tr>
<tr>
<td><strong>Air pollution</strong></td>
<td>66.4</td>
</tr>
<tr>
<td><strong>Carbon tax</strong></td>
<td>66.4</td>
</tr>
<tr>
<td>(€30/ton, in addition to ETS price &amp; auction)</td>
<td></td>
</tr>
<tr>
<td><strong>Electricity tax (€50/MWh, bulk users)</strong></td>
<td>32.5</td>
</tr>
<tr>
<td><strong>Water (25% cost increase industrial use)</strong></td>
<td>20.7</td>
</tr>
</tbody>
</table>
## Scenario in 2020

### Labour

€ 554 billion decrease

**Income tax & SC** - 535.8
- Reduction of income tax and employee SC - 357.4
- Payroll tax credit for new employment (1% of GDP; employers benefit only as far as labour demand is increased structurally) - 125.8
- Reduction of employers’ SC - 29.2
- Payroll tax credit for circular innovation (0.15% of GDP) - 23.3

### Resource use

€ 554 billion increase

**Fossil fuels** 290.5
- Excise duty on transport fuels (gasoline, diesel) € 0.50/l - 256.4
- Excise duty on aviation fuel (€ 0.30/l) - 33.2
- Excise duty on natural gas (€ 7.80/MWh) - 0.9

**VAT** 143.9
- Standard rate up (to 21%) 111.2
- Reduced rate up (to 10%) 32.7

**Air pollution** 66.4
- Carbon tax (€ 30/ton, in addition to ETS price & auction) 66.4

**Electricity tax** (€ 50/MWh, bulk users) 32.5

**Water** (25% cost increase industrial use) 20.7
Overall results

(EU-27, % difference from baseline)

*Final energy consumption of 12 energy sources
(2016 Cambridge Econometrics)
GDP

+ € 842 billion

2020, EU-27, compared to business as usual
CARBON EMISSIONS

- 8.2%

2020, EU-27, compared to business as usual scenario
ENERGY RESOURCES

- € 27.7 billion
WATER

- 218 billion m$^3$

2016-2020, compared to business as usual scenario
In 2020, EU-27, compared to business as usual, 6.6 million more people were in employment.
Impact per sector

(EU-27, 2020, % difference from baseline) (2016) Cambridge Econometrics
Impact per sector

+ 6.6 miljoen

(EU-27, 2020, % difference from baseline) (2016) Cambridge Econometrics
Real incomes in all groups increase

(EU-27 average, 2020, % difference from baseline, socio-economic groups by type of activity)

Difference between 1st and 5th quintile: 0.12%
# Integrated Value Added Statement

<table>
<thead>
<tr>
<th>Impact</th>
<th>Value Added (€ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Capital</strong></td>
<td>842.2</td>
</tr>
<tr>
<td>National Income Growth</td>
<td>842.2</td>
</tr>
<tr>
<td><strong>Natural Capital</strong></td>
<td>259.5</td>
</tr>
<tr>
<td>Climate Change</td>
<td>112.6</td>
</tr>
<tr>
<td>Air Pollution</td>
<td>49.5</td>
</tr>
<tr>
<td>Land and Water Pollutants</td>
<td>93.8</td>
</tr>
<tr>
<td>Water Depletion</td>
<td>3.6</td>
</tr>
<tr>
<td>Other value</td>
<td>( \text{pm} )</td>
</tr>
<tr>
<td><strong>Social Capital</strong></td>
<td>17.4</td>
</tr>
<tr>
<td>Health Benefits of Employment</td>
<td>17.4</td>
</tr>
<tr>
<td>Other value</td>
<td>( \text{pm} )</td>
</tr>
<tr>
<td><strong>Total Value Added</strong></td>
<td>1,119.2</td>
</tr>
</tbody>
</table>

(EU-27, 2016-2020 compared to baseline)

(2016) The Ex'tax Project (scenario & design), Cambridge Econometrics (macro-economic modelling), Trucost (Value Added Statement).
Tax reform can play an important role in greening growth. The evidence-driven simulations presented in this report of The Ex’tax Project, suggest that shifting taxes from labour to consumption and natural resources will result in more growth, more employment, and a smaller environmental footprint. We have enough evidence to support green tax reform and concrete policy action.

Angel Gurría, OECD Secretary-General
The Global Goals
Carbon pricing on the rise
>600 companies apply an internal carbon price

Source: 2016. Putting pressure on carbon (p003)
<table>
<thead>
<tr>
<th>Company</th>
<th>Company</th>
<th>Company</th>
<th>Company</th>
<th>Company</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB InBev</td>
<td>BMW</td>
<td>E.ON</td>
<td>Hohtief</td>
<td>Lanxess</td>
<td>Randstad</td>
</tr>
<tr>
<td>ABF (Assoc...)</td>
<td>Borealis</td>
<td>EDF</td>
<td>Hoffman La...</td>
<td>LVMH</td>
<td>Reckitt Be...</td>
</tr>
<tr>
<td>Acciona</td>
<td>BP</td>
<td>Electrolux</td>
<td>Iberdrola</td>
<td>Marks and ...</td>
<td>Repsol</td>
</tr>
<tr>
<td>Adecco</td>
<td>British Am...</td>
<td>Enel</td>
<td>IKEA</td>
<td>Merck Group</td>
<td>Rio Tinto ...</td>
</tr>
<tr>
<td>Adidas</td>
<td>BSH Group</td>
<td>Engie (201...)</td>
<td>Inditex</td>
<td>Metro Group</td>
<td>Royal BAM</td>
</tr>
<tr>
<td>Aegon</td>
<td>Buzzi</td>
<td>Eni</td>
<td>Indra</td>
<td>Metsä Board</td>
<td>Royal Bank...</td>
</tr>
<tr>
<td>Air France...</td>
<td>Canon</td>
<td>Evonik Ind...</td>
<td>ING</td>
<td>Michelin</td>
<td>SABMiller</td>
</tr>
<tr>
<td>Akzo Nobel</td>
<td>Capgemini</td>
<td>Ferrovial</td>
<td>Intercontini...</td>
<td>Moller Maersk</td>
<td>Salini Imp...</td>
</tr>
<tr>
<td>Allianz</td>
<td>Carillion</td>
<td>Fiat</td>
<td>Internatio...</td>
<td>Mondi Group</td>
<td>Sandvik</td>
</tr>
<tr>
<td>Anglo Amer...</td>
<td>Centrica</td>
<td>FrieslandC...</td>
<td>ISS</td>
<td>Munich Re</td>
<td>Sanofi</td>
</tr>
<tr>
<td>ArcelorMittal</td>
<td>Coca cola</td>
<td>G4S</td>
<td>Italcementi</td>
<td>Nestle</td>
<td>SAP</td>
</tr>
<tr>
<td>AstraZeneca</td>
<td>Compass</td>
<td>GE (overna...)</td>
<td>Jeronimo M...</td>
<td>Novo Nordisk</td>
<td>Schneider ...</td>
</tr>
<tr>
<td>Atlas Copco</td>
<td>Continental</td>
<td>General Mills</td>
<td>Johnson Ma...</td>
<td>Olam Int</td>
<td>SGS</td>
</tr>
<tr>
<td>Aviva</td>
<td>Credit Suisse</td>
<td>GlaxoSmith...</td>
<td>Kellogg Co...</td>
<td>Penalpina</td>
<td>Shell</td>
</tr>
<tr>
<td>AXA</td>
<td>CRH</td>
<td>Groupe BPCE</td>
<td>Kering (PPR)</td>
<td>PepsiCo</td>
<td>Shell</td>
</tr>
<tr>
<td>Bank of Am...</td>
<td>Daimler</td>
<td>Grupo ACS</td>
<td>Kone</td>
<td>Philips</td>
<td>Siemens</td>
</tr>
<tr>
<td>BASF</td>
<td>Danone</td>
<td>Hamburger ...</td>
<td>KPN</td>
<td>Pirelli</td>
<td>UBS</td>
</tr>
<tr>
<td>Bayer</td>
<td>Deutsche P...</td>
<td>Heidelberg</td>
<td>Kuehne Nagel</td>
<td>Prosegur</td>
<td>Smurfit Kappa</td>
</tr>
<tr>
<td>Beiersdorf</td>
<td>DS Smith</td>
<td>Heineken</td>
<td>L'Oreal</td>
<td>Prudential</td>
<td>Sodexo</td>
</tr>
<tr>
<td>BHP Billiton</td>
<td>DSM</td>
<td>Henkel</td>
<td>Lafarge</td>
<td>PSA</td>
<td>Solvay</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vattenfall</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vodafone</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vodafone</td>
</tr>
</tbody>
</table>
Sector Analysis

- **Employment**
  - # of Employees
  - Intensity 1 (# / sales) (i)
  - Intensity 2 (€ / sales) (i)
  - Intensity 3 (€ / operating costs) (i)

- **Water**
  - Water Use
  - Water Intensity

- **Carbon**
  - Carbon Emissions
  - Carbon Intensity

Bar chart showing carbon emissions for various sectors.
Scenarios

- **BUSINESS AS USUAL SCENARIO** (carbon emissions & water use unchanged)
- **EFFICIENCY SCENARIO** (20% reduction in carbon emissions and water use)
- **TAX SHIFT SCENARIO** (10% reduction in social security costs)
“Companies cannot do this alone. (...)

when it comes to pricing carbon, companies’ internal carbon prices can only be sustained if that price materializes in the real economy, through policies that create a level playing field for all.”

Paul Polman (CEO Unilever)
Inclusive circular growth
- Call to action
- Showcases & research
OECD

- Thought leadership Tax & the Global Goals
- Regional research
- Research on tax & equality
- New economic analysis.