Fiscal challenges in OECD countries and OECD's analytical framework

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Roadmap

- Background on debt targets
- OECD tools to assess the size of fiscal challenges (with results, but not for Norway)
- Drivers and sensitivities of fiscal challenges
- Instruments to address fiscal challenges
- Caveat: important issues not covered include the dynamics of adjustment, fiscal policy institutions

Background on debt targets

- Sustainability most obviously defined in terms of debt level
- Economic theory has little to say on optimal debt level
  - Sustainability usually defined as stable debt ratio
- Empirical evidence points to debt becoming more burdensome above certain levels
  - OECD estimates: interest rate effects larger at gross debt levels above 75% of GDP (4 bps per %) .
  - Reinhart/Rogoff: lower growth at debt levels above 90% of GDP
  - OECD estimates: reduced stabilisation effect (stronger saving offset) above 75% GDP

OECD 50

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Background on debt targets

- Building in a margin for automatic stabilisers and discretionary stabilisation might suggest a ceiling of some 50-60% of GDP for “standard” country in normal times but would depend on e.g.
  - Strength of automatic stabilisers/tradition for discretionary stabilisation
  - Asset position (incl. quality of assets)
  - Ease of financing (e.g.. reserve currency status)
  - Contingent liabilities (pension schemes, financial explicit or implicit guarantees, etc.)
- In practice, we look at implications of different debt targets

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OECD tools to assess sustainability

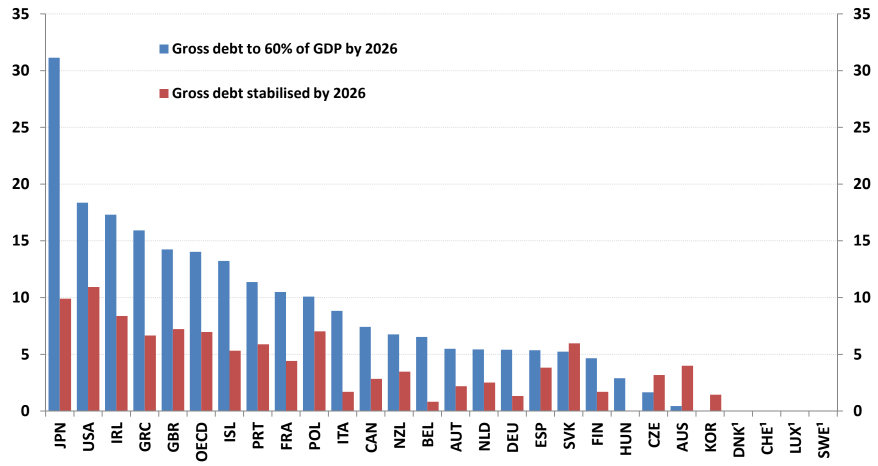
- Two tools with similar focus on necessary consolidation to achieve debt objective
- Medium-term (15 year) analysis of consolidation requirements to achieve end-period debt objectives
  – Gradual phase-in of consolidation
- Same for long term (to 2050) but with
  – One-off consolidation (=fiscal/tax gap)
- Issue in both cases: changing debt ratio beyond end-period

Medium-term requirements

- Debt stabilisation scenario: Tightening by ½ per cent of GDP per year post 2012 for as long as it takes to stabilise debt
- 60% of GDP debt scenario: Tightening in equal amounts per year over full period post 2012
- Up to 2012: announced policy
- Productivity growth converging towards 1¾ per cent per year
- Gradual closing of output gap, crisis-induced effects on structural unemployment eventually reversed
- Permanent effect of crisis on capital intensity (~ 3-4% level effect on potential output)
- Interest rate based on return to normal neutral short-term rate, normal yield spread but with endogenous debt-driven addition (snowball effect)
- Ageing/health spending pressures assumed to "be taken care of": Without strong reform, consolidation outside health/pension area may have to be some ¼ per cent of GDP larger per year

Total consolidation required from 2010 to achieve alternative debt targets

Total increase in the underlying primary balance



1.No consolidation is needed to achieve the 60% or to stabilise the debt-to-GDP ratio.
Source: OECD calculations.

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Conclusions

- For some countries, stabilising debt is ambitious and reducing it to 60% impossible by 2026
- Stabilisation is often at a high level (250% of GDP in Japan, 150% in US and 100% in the euro area)
- Requirements differ a lot across countries
- Irony: Aggregate requirement is small for euro area
  – But euro debt corresponds to debt in foreign currency (~original sin)

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Long-term requirements

- Projection to 2050 starting from medium-term
- Productivity growth of 1¾ per cent, labour supply following demographic development and cohort effect on participation
- Underlying revenues and spending are constant as a share of GDP
- In some scenarios, increases in ageing and health related spending is added
- Interest rates as in medium-term scenario
- Permanent and immediate change in primary balance calculated to hit specific debt level (= fiscal gap)

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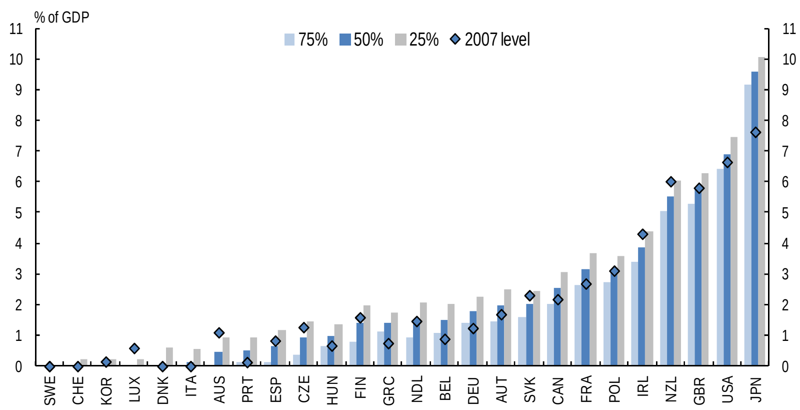
Fiscal gaps for alternative debt targets

Change in underlying primary balance needed so that debt equals 75%, 50% or 25% of GDP or returns to the 2007 level in 2050



Note: The change is from the underlying primary balance projected for 2012.

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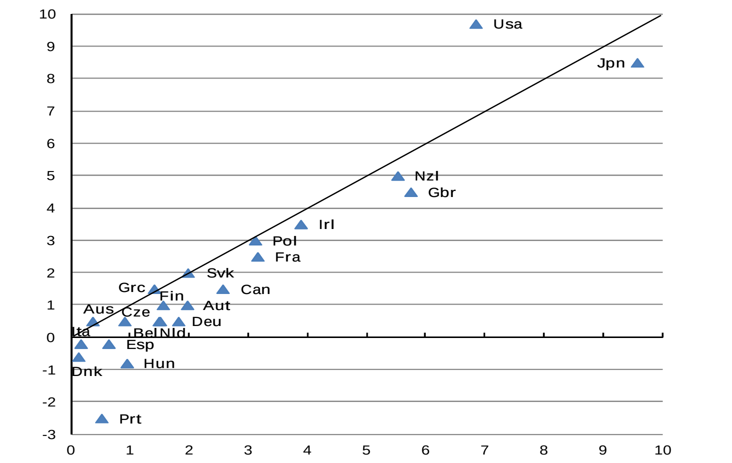
Broad consistency between medium and long-term tools

Consolidation requirements to stabilise debt, % of GDP



Baseline fiscal gaps, % of GDP

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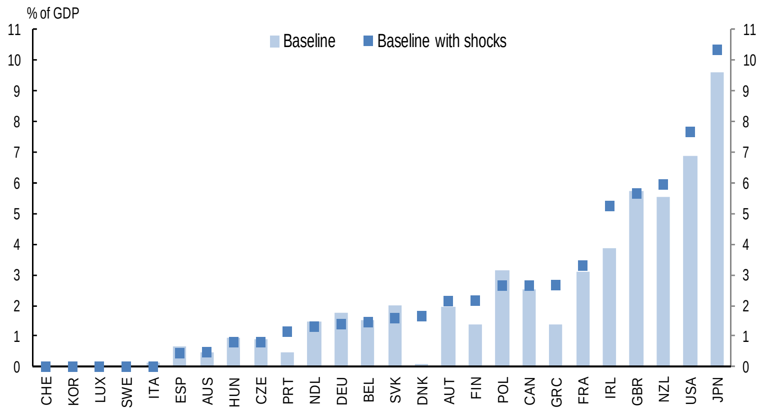
Stochastic shocks mean larger fiscal gaps in some countries

Change in underlying primary balance needed so that debt is 50% of GDP in 2050 and change needed to ensure meeting this target with 75% probability when the baseline is hit by shocks



Note: The change is from the underlying primary balance projected for 2012.

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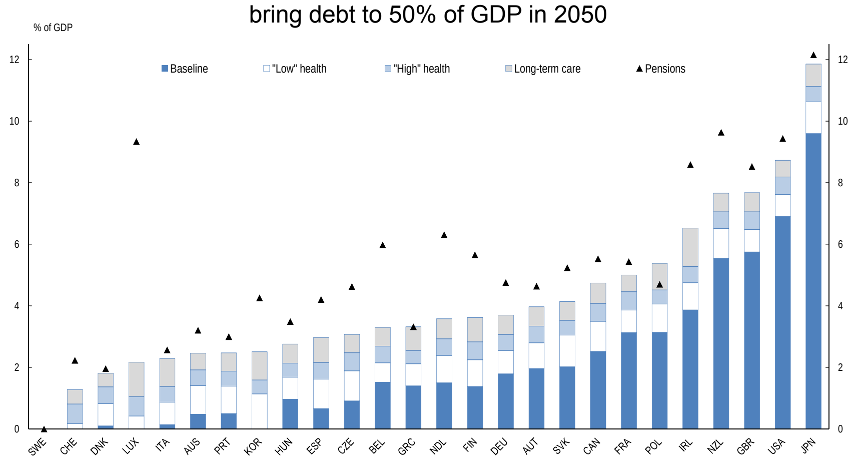
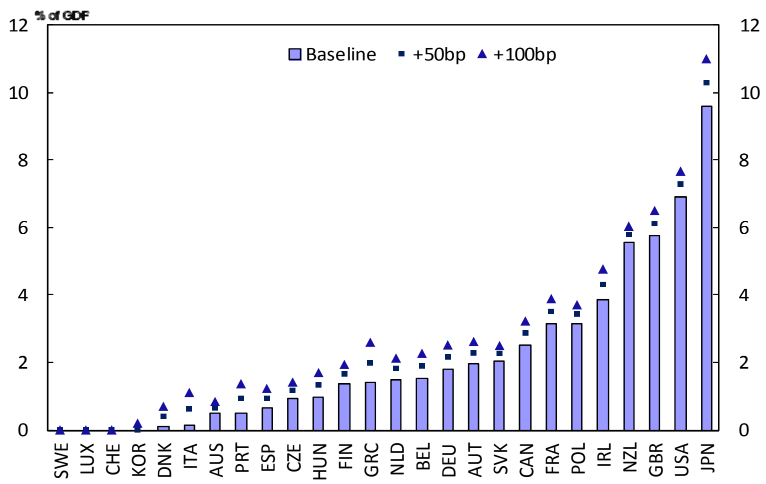
Spending on health, long-term care and pensions makes a difference

Immediate rise in the underlying primary balance needed to bring debt to 50% of GDP in 2050



Note: "Low" health assumes policy action curbs health spending growth. "High" health is the additional cost pressure in the absence of these policy actions.

Higher interest rates add to the gap for highly indebted countries



Conclusions from long-term analysis

- Broad correspondence with medium-term analysis
- The exact debt objective matters little in the long run (the starting point is crucial)
- Debt shocks matter little in general
- Health and pension spending is BIG (and becomes bigger with the time horizon)
- Different interest rates also matter for indebted countries (pointing to importance of debt dynamics)

Could inflation be a quick fix?

Impact of a 1-percentage point increase in inflation on the debt ratio after 10 years with different debt turnover parameters

per cent of GDP

The annual turnover of initial debt from the 2nd year onwards[2]	The difference between the alternative and baseline scenario in the debt ratio after 10 years[1] — The share of initial debt maturing in the 1st year: 10%	20%	30%	40%
5 %	-9.2	-8.5	-7.9	-7.2
10 %	-7.8	-7.1	-6.5	-6.0
15 %	-6.7	-6.2	-5.8	-5.4
20 %	-6.2	-5.8	-5.4	-5.1
25 %	-5.8	-5.5	-5.2	-4.9

1. The baseline hypothetical scenario assumes that: *i*) initial debt and assets (*i.e.* in the year prior to the inflation shock – year t_0) are equal to 100% and 25% of GDP, respectively; *ii*) the implied cost of debt in year t_0 is 4.1%; *iii*) during the ten years after year t_0 the primary balance is zero, nominal GDP grows at 4%, GDP deflator increases by 2%, the interest rate earned on assets is 2.3%, and long and short-term interest rates are 5.5% and 4.0%, respectively; *iv*) in the first year of the inflation shock, initial debt turns over in the proportions indicated in the heading row, in subsequent years, it matures annually by a constant share indicated in the first column; *v*) new debt (*i.e.* debt issued after year t_0) matures annually in equal proportions as indicated in the first column; *vi*) interest payments on initial debt are proportional to the implied cost of debt in year t_0 and the share of remaining debt in a given year; *vi*) interest payments on new debt start only after one year and in any given year they are proportional to interest rates in the year of issuance and the share of remaining debt; *viii*) interest rates on new debt depend on maturity – the short-term interest rate is paid on 1-year debt, the long-term interest rate is paid on 10-year debt and the linear combination of short and long-term rates is paid on debt of any other maturity. In the alternative scenario, inflation (in terms of GDP deflator) and all interest rates are increased permanently by 1 percentage point over ten years.
2. For some combinations of maturity parameters, in the last year of debt life, the turnover share may be smaller than indicated.

Source: OECD.

Could inflation be a quick fix?

- Upshot: Finite gain if interest rates adjust, durably higher inflation
- Typical order of magnitude: 1%-point on inflation corresponds to -5% on debt/GDP ratio
- Effects would be larger but costs also with financial repression (Reinhart and Sbracia)
- Bottom-line: No way around looking at primary spending and revenue (even with partial default on existing debt)

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Candidates for improving primary balance

- Instruments that do not clash too directly with other policy objectives such as income distribution, social protection, environmental protection, etc. For example:
  - Raising public sector efficiency
  - Eliminating what looks like obviously wasteful spending
  - Age-adjusting pension schemes
  - Raising taxes on negative externalities (e.g. pollution) or obviously under-taxed items (e.g. housing)
  - Reconsider tax expenditures

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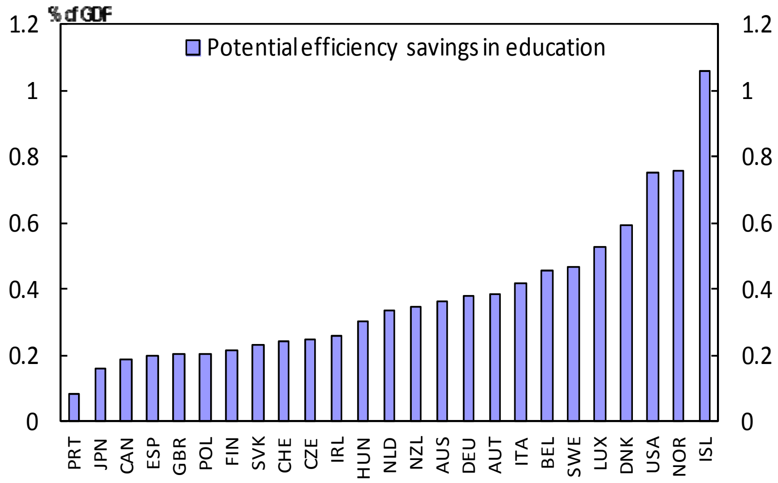
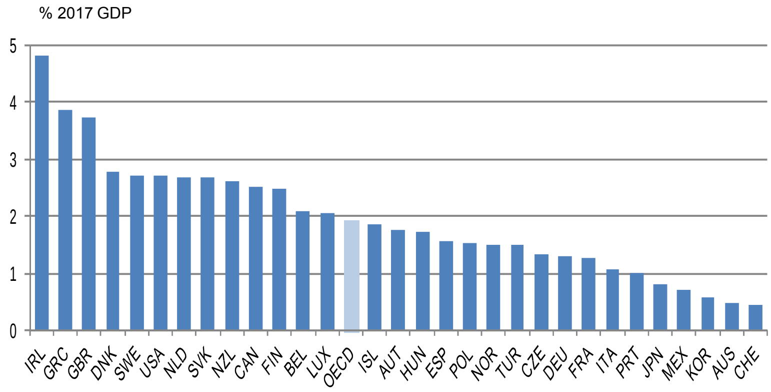
Gains from higher efficiency in primary and secondary education can be significant

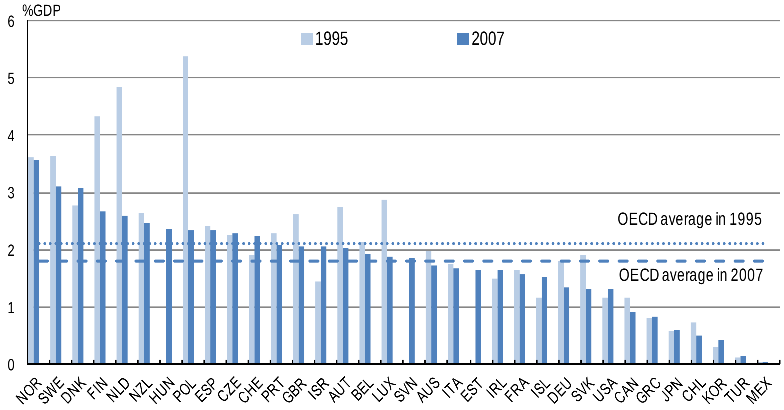


And gains from improved efficiency of health care can be much larger



Note: Potential savings represent the difference between a no-reform scenario and a scenario where countries would exploit efficiency gains. The no-reform scenario assumes that between 2007 and 2017 life expectancy and spending increase at the same pace as over the previous 10 years and that the mix between public and private spending remains constant over time.
Source: Joumard, I, P. Hoeller, C. André and C. Nicq (2010b), *Health Care Systems: Efficiency and Policy Settings*.

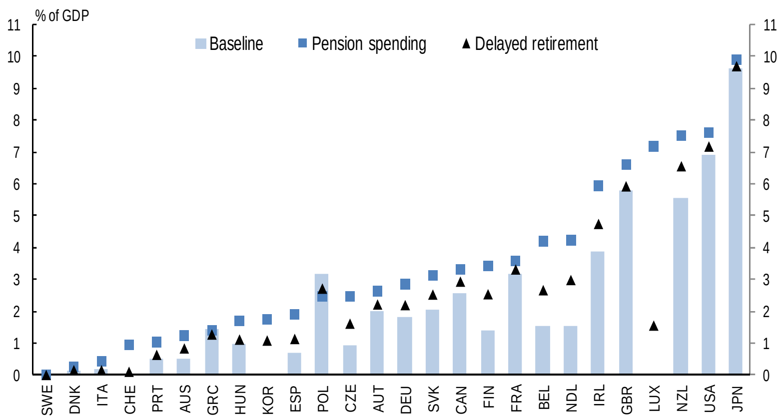
Spending on disability looks amazingly big in some countries with good health records



Source: OECD SOCX Database.

Delayed retirement reduces the fiscal gap

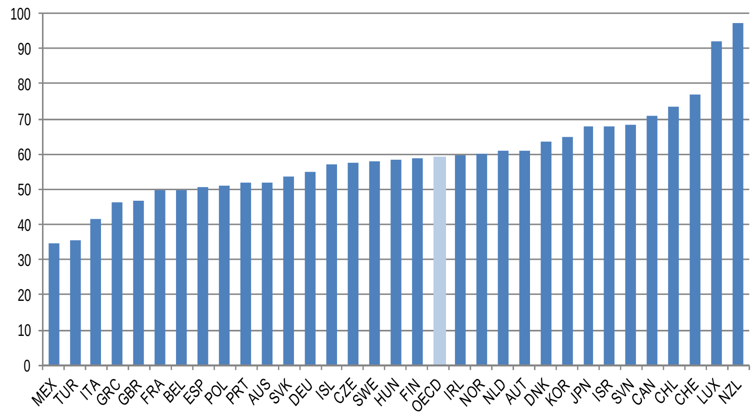
Change in underlying primary balance needed to bring debt to 50% of GDP in 2050



Note: The change is from the underlying primary balance projected for 2012.

VAT is an example of tax expenditure varying across countries

VAT revenue ratio, average 2007-08



Note: The VAT revenue ratio measures the difference between the VAT revenue actually collected and what would theoretically be raised if VAT was applied at the standard rate to the entire potential tax base in a "pure" VAT regime and all revenue was collected: VRR = VAT Revenue/(Consumption * Standard VAT rate)*100.
Source: OECD (2011), Consumption Tax Trends 2010: VAT/GST and Excise Rates, Trends and Administration Issues,

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Adding together gives a lot of consolidation

	IRL	ITA	JPN	KOR	LUX	MEX	NLD	NZL	NOR	POL	PRT	SVK	SWE	TUR	USA
EXPENDITURE															
1. Social transfers															
A. Family benefits	0.7	-	-	-	1.2	-	0.1	1.1	0.9	-	-	-	1.4	-	-
B. Disability benefits	-	-	-	-	0.1	-	0.8	0.7	1.8	0.6	0.3	-	1.3	-	-
2. Pensions															
A. Eliminate tax breaks	1.2	0.0	0.7		0.5	0.2			0.6	0.2	0.1	0.2			0.8
3. Health care															
A. Increase efficiency	4.8	1.1	0.8	0.6	2.0	0.7	2.7	2.6	1.5	1.5	1.0	2.7	2.7	1.5	2.7
4. Education															
A. Increase efficiency in primary and secondary education	0.3	0.4	0.2	-	0.5	-	0.3	0.3	0.8	0.2	0.1	0.2	0.5	-	0.8
B. Introduce or raise tuition fees for tertiary education	0.3	0.2	-	-	0.4	0.1	0.2	-	0.4	0.1	0.1	-	0.4	0.4	-
5. Government wage bill															
A. Restore public-private sector pay relativities	0.9	1.1	0.6	-	0.8	-	0.3	0.9	-	2.2	-	0.8	0.7	-	0.5
B. Reduce subsidies as share of GDP to OECD average	-	-	-	-	0.2	-	0.1	-	0.7	-	-	0.2	0.1	-	-
REVENUE															
1. Broaden VAT base	0.4	2.6	-	-	-	2..5	-	-	0.2	1.4	1.2	0.6	-	3.3	
2. Introduce or increase taxes on immovable property	0.2	0.4	-	0.0	0.9	0.8	0.4	-	0.7	-	0.3	0.6	0.2	0.9	-
3. Environmental															
A. Cut GHG emissions to 20% below 1990 levels via an ETS with full permit auctioning	1.8	1.8	1.2		1.8		1.8	4.2		1.8	1.8	1.8	1.8		2.2

Notes: An empty cell indicates that no information was available. Cells with a dash indicate that no savings are available from this source. Estimates for family benefits are based on reducing the figure reported in the OECD Socex Database to the unweighted OECD average as a per cent of GDP. Estimates for disability benefits are based on reducing the figure reported in the OECD SOCX Database to the unweighted OECD average as a per cent of GDP. The elimination of tax breaks for retirement is based on data for 2007 from OECD (2011), *Pensions at a Glance*. Health care efficiency estimates are from Journard *et al.* (2010). Education efficiency estimates are based on Sutherland *et al.* (2007) updated to 2007 spending figures. Tuition fees for tertiary education are based on raising direct household expenditure for tertiary education institutions to the unweighted average of those countries where households spend on this category. Government wage relativities are based on returning the government to private sector wage ratio in the early 2000s. Estimates for subsidies are based on reducing national account data for 2009 to the unweighted OECD average. The figures for broadening VAT base assume collection efficiency rises to the unweighted OECD average. The figures for immovable property are based on the unweighted average for 2008 from the Revenue Statistics. Revenues from greenhouse gas emissions are based on de Serres *et al.* (2010).

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