Chapter 2

The effects of growth-enhancing structural reforms on other policy objectives

This chapter examines the potential side effects of the growth-enhancing policy recommendations reviewed in Chapter 1 on two other aspects of well-being, namely income distribution and the environment, as well as on government budget balances and current accounts. In doing so, the chapter describes the main channels of influence and identify possible policy trade-offs and complementarities.

Key policy messages

Income inequality

- Some reforms are good for both growth and equity. Policies that foster equity in access to education are a case in point as are certain policies that entail higher progressivity in taxation, such as reductions in tax wedges for low-wage earners or cutbacks in tax expenditures that benefit mainly high-income groups.
- Other growth-enhancing structural reforms may lead to trade-offs with respect to
 income inequality. For instance, shifting the tax mix away from direct taxes towards
 consumption, environmental and real estate taxation would improve work and
 investment incentives, but could clash with equity objectives. This said, in most cases,
 the tax shift could be designed to alleviate regressivity.
- Labour market reforms designed to improve employment opportunities of low-skilled workers and young people, through reforms of employment protection, wage bargaining or the minimum wage may exacerbate income inequality in the short run through a wider wage distribution. However, this effect may be partly or even fully offset in the longer run as the job prospects improve for such workers, in particular those weakly attached to the labour market.
- In several cases, the full impact of policy recommendations on income inequality is difficult to assess with a great deal of confidence. This is because the net impact of many structural reforms results from multiple offsetting effects, but also because recommended reforms often do not cause substantial shifts in countries' income distribution.

The environment

- Growth-enhancing reforms generally involve a higher use of environmental resources. However, those that raise the production costs of environmentally-harmful activities (such as the removal of some subsidies) will help to ensure that future gross domestic product (GDP) growth is on a sustainable path.
- Priorities aiming at strengthening competition and increasing the flexibility of resource allocation increase the responsiveness to market-based environmental policy instruments, and hence are complementary to the latter by making green growth policies more cost effective.

Government budget and external accounts

Growth-enhancing reforms improve the public-sector budget balance, but their effect
will likely differ in the medium run depending on whether they boost growth primarily
through employment or productivity. In both cases reforms generate higher revenues,
but only in the case of employment are they likely to significantly improve the budget
balance.

- Growth-enhancing policies will weaken the current account to the extent they
 contribute to reduce saving or raise investment. This is the case of policies that reduce
 barriers to investment (including foreign direct investments [FDI]), or that reduce private
 incentives to save, such as extending the coverage and level of social protection.
- Conversely, policies that are likely to strengthen the current account include reforms
 that raise competitiveness through tax changes or stronger exposure to domestic
 competition, and reforms of benefit entitlements that ensure the sustainability of
 welfare systems.

Introduction

The previous chapter has provided an overview of the structural reform priorities to achieve higher levels and growth in GDP per capita (see also individual country notes in Chapter 3). The purpose of this chapter is to examine the potential side effects of these recommendations on other objectives of public policy such as reducing income inequality, achieving environmental sustainability and unwinding macro-economic imbalances, with a view to identifying possible trade-offs and complementarities.

The focus of *Going for Growth* is on maximising material living standards, more specifically the flow of goods and services produced in the economy. Despite its shortcomings, GDP per capita has so far been an indicator of choice, thanks to its wide availability and comparability both across countries and over time. However, beyond material living standards, citizens are concerned also with other dimensions of well-being, such as income distribution, environmental quality, leisure, health, self-sufficiency, social inclusion and stability. Indeed, several broader measures of well-being are being developed in the context of the OECD *Better Life Initiative* on welfare and progress. Many of these aspects can go hand in hand with GDP growth, but sometimes this is not the case. For instance, previous work has shown that the inclusion of proxies for income distribution in a broader measure of well-being can give a picture of cross-country economic performance that is quite different from that based on GDP per capita alone. ²

At the same time, the recent crisis exposed the contributing role of large macroeconomic imbalances – both within and between countries – to the severity of the recession and the weakness of the recovery. External (current account) and internal (fiscal position) imbalances partly reflect side effects of structural policies that have consequences on the budget, competitiveness and saving and investment decisions.

In looking at the side effects of growth-enhancing policy recommendations on macro-economic imbalances and well-being, this chapter draws to the extent possible on recent empirical work.³ The analysis thus focuses on two aspects of well-being that have been more thoroughly examined, namely income inequality and the environment. Given that the focus is on the effect of growth-oriented reforms on other objectives, the analysis leaves aside the potential links between the different non-GDP dimensions, such as the impact of policies aimed at reducing fiscal deficits on income inequality or the effect of pursuing environmentally-friendly policies on income growth and inequality. The main goal of the chapter is to provide a qualitative assessment of the effects of selected structural policies, assuming a typical policy design, leaving aside the impact of specific recommendations on individual countries and the overall effect of the policy mix. Providing a quantitative evaluation of the side effects is thus beyond the scope of this exercise as this would entail elaborate assumptions about the specific policy design and

the intensity with which the proposed reforms are pursued in individual countries. Ultimately, the aim would be to consider both growth and other objectives simultaneously when designing public policies. Looking at the side effects of growth oriented reforms can be seen as a first step in this direction.

The chapter is organised as follows. The next section looks at the side effects of growth-enhancing measures on income distribution and the environment. The subsequent section looks at the potential impact of priorities and recommendations on macro-economic imbalances, more specifically budget deficits and current account positions. The assessment only covers those structural policies where a clear assessment of trade-offs and complementarities can be drawn, recognising that theoretical and empirical knowledge is still limited in some potentially important areas of reform. Each section provides a summary of the extent to which the 2013 policy recommendations help with respect to the additional policy objective and where they create tensions.

The effects of growth-enhancing policies on other dimensions of well-being Income inequality

In a majority of OECD countries income inequality has increased over the past decades (Figure 2.1 and OECD, 2011a). In addition, poverty is still an important policy issue in many countries (OECD, 2008a), not least due to the adverse effects of the economic crisis and its aftermath. However, as both individuals and societies as a whole differ in their preferences

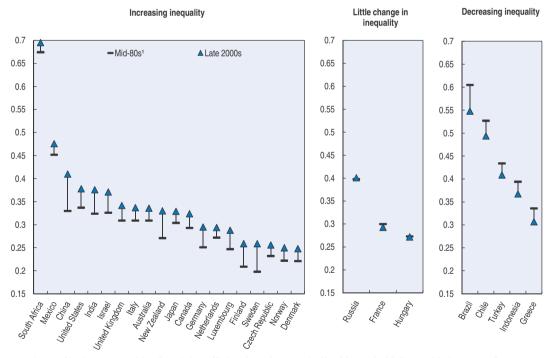


Figure 2.1. Income inequality has increased in most OECD countries¹

^{1.} Income inequality is measured by the Gini coefficient based on equivalised household disposable income, after taxes and transfers for total population. Data refer to 1994/95 for Australia, to 1996 for Chile, to 1992 for Czech Republic, to 1991 for Hungary and to early 1990s for the BRIICS. For BRIICS countries, income inequality is measured by the Gini coefficient based on per capita income, except for India and Indonesia for which the Gini coefficient is based on per capita consumption. Hence the data are not strictly comparable. Source: OECD Income Distribution Database; OECD (2011), "Special Focus: Inequality in Emerging Economies", in Divided We Stand: Why Inequality Keeps Rising, OECD Publishing; World Bank, World Development Indicators (WDI) Database.

concerning various definitions of equity, any discussion on equity-related economic developments necessarily involves value judgments. This sub-section investigates the potential impact of growth-enhancing structural reforms on one aspect of equity, namely income distribution.

In doing so, the analysis distinguishes between two key channels through which policies can affect income dispersion across individuals and households: i) the wage distribution of those having a job and, ii) the employment rate of the working-age population. A number of policy recommendations to boost growth have opposing income distribution effects via these channels, i.e. they reduce income inequality by boosting employment, especially among workers with low earnings potential, but they also widen the wage distribution of those in employment (see below). While it is often difficult to determine which of these effects dominates in the long run, there is a presumption that the wage distribution effect generally materialises more rapidly and therefore that such reforms are more likely to exacerbate income inequality in the short run, while the employment effect offsets at least part of the initial increase in inequality in the longer term. Accordingly, the analysis also attempts to distinguish between the short- and longrun impacts of structural reform priorities on income inequality, taking into account that the full effects of most structural reforms take time to materialise. Aside from the presence of multiple offsetting effects, other factors explain why precise effects on income inequality are in many cases difficult to gauge with great confidence:

- Different definitions of income as well as quantitative indicators can be used to measure the stance of income distribution (see Box 2.1). This section focuses on household labour income and household disposable income and relies mostly on the Gini index as an indicator of inequality, largely because of their use in the main empirical studies that this analysis draws on. Some of the findings about the effect of reforms might differ if income was defined so as to include in-kind transfers, such as education and health care benefits, but firm evidence is limited by the difficulties in measuring the redistributive impact of such transfers.⁴
- Most of the underlying evidence is based on empirical analysis looking at the impact of
 general structural policy changes on income inequality, using data spanning over the
 last two or three decades. While these policy changes do, by and large, reflect the spirit
 of Going for Growth policy priorities, they may not fully capture more specific aspects of
 the associated recommendations, or the combined effects of separate recommendations,
 which could lead to a somewhat different impact.

Box 2.1. Defining and measuring income inequality

According to the 2009 Stiglitz-Sen-Fitoussi report (Stiglitz *et al.*, 2009) the most appropriate income concept for analysing income distribution is household disposable income adjusted for publicly-provided in-kind services, such as education and health care spending. This measure is the most comprehensive income concept, and includes several policy and non-policy factors shaping inequality. Different concepts of income dispersion can be distinguished depending on which factors and population subgroups are included:

- Dispersion of hourly wages among full-time (or full-time equivalent) workers.
- Wage dispersion among employees (e.q. annual wages, including wages from part-time or seasonal work).
- Dispersion of individual earnings among all workers (including the self-employed).

Box 2.1. **Defining and measuring income inequality** (cont.)

- Dispersion of individual earnings among the entire working-age population.
- Dispersion of household earnings (including the earnings of all household members).
- Dispersion of household market income (including income from capital, savings and private transfers).
- Dispersion of household disposable income (including public cash transfers received and deducting direct taxes paid).
- Dispersion of adjusted disposable income (including in-kind transfers, such as education and health care spending).

Structural policies are likely to have a different impact on different segments of the population, by and large due to the fact that they often target age- or gender-specific groups in society. This section focuses mainly on income inequality among the working-age population, using household labour income and household disposable income as the main income concepts, as they are the focus of recent OECD work on income inequality (OECD, 2012a; OECD, 2011a). However, some structural reforms, such as measures to liberalise trade and (foreign) investment, are likely to affect the entire population, and not only via the income channel, but also via the price channel (for instance, by lowering the price of available goods and services) and the increase in product variety.

There are several summary measures which can be used to assess the overall shape of the income distribution, given by the Lorenz curve:*

- Gini index (or coefficient): Measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of zero represents perfect equality and an index of one, extreme inequality (where one individual or household would get all income in the economy).
- Mean log deviation: Is the average value of the natural logarithm of the ratio of mean income to the income of each decile.
- Squared coefficient of variation: Is the variance of average income of each decile, divided by the square of the average income of the entire population.
- The P90/P10 inter-decile ratio: Is the ratio of the upper bound value of the ninth decile to that of the first.
- The P50/P10 inter-decile ratio: Is the ratio of median income to the upper bound value of the first decile.

The Gini index is the most popular measure due to its wide availability and comparability across country and overtime. Because different summary indices are especially sensitive to different parts of the Lorenz curve, country rankings may partly depend on the specific inequality measure used. However, at least for OECD countries, these measures tell a consistent story as evidenced by very high cross-country correlations between each of these alternative inequality measures and the Gini index (OECD, 2008a).

* The Lorenz curve plots the cumulative percentages of total income received against the cumulative percentages of recipients, starting with the poorest individual or household.

The remainder of the section discusses the likely effects on income inequality of growth-enhancing structural policies in five key areas: labour-market and income-support policies, human capital, product market regulations, taxation, and subsidies. The main conclusions and channels through which structural reforms are likely to impact on inequality are synthesised in Table 2.1.

Table 2.1. The effects of Going for Growth 2013 policy recommendations on income inequality

Going for Growth Poli	cy recommendations	Potential channels	Countries with a Going for Growth priority in this area
	A.	Reforms that are likely to reduce income inequality	
Labour market and income-support	Reduce labour market duality by easing job protection for permanent workers.	Increase in human capital and job opportunities of workers at the margin.	CHL, DEU, ESP, FRA, IDN, IND, ITA, JPN, KOR, LUX, MEX, NLD, PRT, SVN, SWE, TUR
policies	Increase spending for and improve effectiveness of active labour market policies (ALMP).	Reduced likelihood of long spells out of employment.	BEL, ESP, EST, FIN, FRA, GRC, IRL, ISR, ITA, LUX, PRT, SVK, USA, ZAF
	Foster female labour market participation (by expanding childcare, reforming taxation).	Increase in female labour force participation and in human capital accumulation.	CHE, CHL, CZE, DEU, GBR, IRL, JPN, KOR, NLD, SVK, TUR
	Increase (the coverage, replacement rate of) unemployment benefits.	Replacement rates are often higher at the bottom of the wage distribution, and the bargaining power of low-income workers is increased. These effects seem to more than offset possible adverse effects via lower employment when replacement rates and/or coverage is very low.	CHL, IDN, ITA, JPN, KOR, TUR
Taxation	Cut tax expenditures.	Tax expenditures that reduce taxable income benefit people according to their marginal tax rate and therefore the high-income groups disproportionately (credits, such as in-work tax credits, particularly fully refundable and capped do not have negative redistributive effects).	CAN, DNK, DEU, FRA, ITA, USA
	Reform tax and benefit systems so as to better target low-income workers and households.	Lower income dispersion and increase in employment.	AUT, BRA, BEL, CZE, EST, DEU, HUN, ISR, TUR
Human capital	Increase quality and provision of early, primary and secondary education.	Increase in human capital and employability. Increase in the share of secondary education. There are offsetting composition and rate-of-return effects, with net impact depending on countries but mostly beneficial for upper-secondary education.	AUS, BRA, CHL, CHN, CZE, DNK, ESP, FRA, GBR, GRC, HUN, IDN, IND, ISL, ISR, ITA, JPN, KOR, MEX, NZL, NOR, POL, PRT, SVK, TUR, ZAF, USA
	Expand/Improve vocational education and training (VET).	Greater human capital accumulation, higher employability of youth and the low skilled.	BRA, CHE, ESP, EST, FRA, GBR, HUN, ITA, NZL, PRT, SVK, SWE, TUR, ZAF
	Promote equity in access to (all levels of) education.	Greater human capital accumulation by disadvantaged students.	BRA, CAN, CHE, CHL, CHN, CZE, DNK, EST, FRA, HUN, IDN, ISL, ISR, NZL, SVK, USA, ZAF
Other policy areas	Reform producer support to agriculture toward more direct support instead of support to production.	Lower-income farmers may benefit relative to their higher-income counterparts.	CHE, EU, ISL, JPN, KOR, NOR, TUR, USA
	В.	Reforms that are likely to raise income inequality	
Human capital	Introduce student fees accompanied by income-contingent repayment loans.	More disadvantaged students tend to underestimate the net benefits of tertiary education.	DEU, ESP, ISR, ITA, SVK, SVN
Other policy areas	Reduce housing subsidies.	Housing subsidies target those with lower income.	DNK, NLD
	C. Refor	ms that have undetermined impact on income inequality	
Product market regulations	Relax product market regulation (by easing entry restrictions in non-manufacturing sectors, reducing barriers to entrepreneurship).	Possibly higher wage dispersion but increase in employment.	AUT, BEL, BRA, CAN, CHN, DNK, ESP, EU, FIN, FRA, DEU, GRC, HUN, IDN, IND, IRL, ISL, ISR, ITA, JPN, KOR, LUX, MEX, NOR, NZL, POL, PRT, RUS, SVK, SVN, TUR, ZAF
	Reduce barriers to trade and FDI.	Impact on wage distribution may depend on the nature and destination of flows. $ \\$	AUS, CAN, IND, IDN, ISL, JPN, KOR, MEX, NZL, RUS

Table 2.1. The effects of Going for Growth 2013 policy recommendations on income inequality (cont.)

Going for Growth Policy recommendations		Potential channels	Countries with a Going for Growth priority in this area
Labour market policies	Reduce the level or the duration of unemployment benefits.	Increase in employment but higher labour earnings dispersion as lower income workers are more likely to be and remain unemployed and often enjoy higher replacement rates.	BEL, FIN, FRA, LUX, NLD, PRT
	Restrain access to disability benefits and facilitate return to work.	Widen inequality in the short run but possibly increase lifetime income.	AUT, DNK, NLD, NOR, POL, USA
	Reform wage setting/bargaining by decreasing legal extensions of collective wage agreements.	Higher wage dispersion but increase in employment, with the former effect possibly dominating the latter.	BEL, ESP, PRT, ZAF
	Decrease the minimum cost of labour.	Decline in unemployment for certain groups but possible increase in wage dispersion. $ \\$	FRA, IDN, ISR, TUR, ZAF
	Increase the effective retirement age by increasing the statutory retirement age/indexing it to longevity.	Increase in senior employment which depends crucially on senior citizens' ability to find work and hold on to their jobs. Possible increase in wage dispersion.	BEL, FIN, HUN, LUX, SVN, TUR
Human capital	Improve enrolment and graduation rates in tertiary education.	The increase in the share of tertiary graduates among the working age population can potentially widen income dispersion but this can be more than offset by a decline in the returns to education relative to those of workers with lowers levels of education.	AUT, CAN, CHL, DEU, DNK, ESP, EST, FRA, SWE
Taxation	Reform the tax structure by increasing the share of property or indirect taxes and reducing the share of direct (corporate and labour income) taxes.	In general, shift from progressive taxes towards less progressive or flat taxes on consumption or property, unless progressivity is explicitly introduced through appropriate policy design.	AUS, AUT, BEL, CAN, CHE, CZE, DEU, DNK, EST, FIN, FRA, HUN, JPN, KOR, NLD, POL, SWE, USA

Labour market and income-support policies

Labour market institutions affect labour income inequality through their impact on the distribution of wage rates and on employment. For some reforms, these impacts may be offsetting, with greater inequality of wage rates likely to be felt in the short term while the equity-enhancing employment channel operates in the longer run. In the case of other policies, however, wage and employment effects may reinforce each other:

- Unemployment benefits: Recommendations in the area of unemployment benefits go in opposite directions. In a number of countries, recommendations are to introduce unemployment benefits, or bolster the system in place, notably by extending coverage to all workers (Indonesia, Japan, Korea, Italy and Turkey). In such cases the impact on income equality is generally favourable, given that the positive effect on labour force participation and formal-sector employment is reinforced by higher equality of income. In contrast, when benefits are high, reducing income support to the unemployed, a priority for some OECD countries (Table 2.1), is likely to have an adverse impact in income equality. Recent evidence suggests that less generous unemployment insurance replacement rates are associated with both higher wage dispersion and employment rates, which results in a very small change on inequality among the working-age population while the impact on inequality between workers and non-workers is uncertain (OECD, 2011a). The effect on rising inequality will be more pronounced when effective replacement rates are initially high for lower income levels or if lower-income earners are more likely to receive benefits (Koeniger et al., 2007).⁵
- Minimum wages: Likewise, when set too high, minimum wages can limit the job market opportunities for young and low-skilled workers. Lowering the statutory minimum wage relative to the median wage, a priority for France, Indonesia, Israel⁶ and Turkey, may raise employment levels by enhancing the job opportunities of these marginal groups (Neumark and Wascher, 2007). However, recent OECD analysis (Koske et al., 2012) suggests that a fall in the minimum wage risks widening the dispersion of wages at the bottom of the distribution among those who are already employed, so that the net impact on labour income inequality among the working age population is also ambiguous.
- Wage bargaining: The impact of reforming wage-setting agreements on income inequality
 is ambiguous. For instance, reducing legal extensions of collective wage agreements (as
 recommended for Belgium, Portugal, Spain and South Africa) can reduce labour costs
 and therefore stimulate employment, especially among low-paid workers. On the other
 hand, the reduction in the scope of collective agreements may contribute to widen the
 wage distribution, raising inequality among those having a job.⁷
- Pension systems and the effective retirement age: Raising the statutory retirement age (and indexing it to longevity) is recommended for a number of countries (Belgium, Finland, Hungary, Luxembourg, Slovenia and Turkey). To the extent that such a policy increases senior employment and that pension income is typically lower than labour income individuals receive while in employment, this policy should narrow income distribution. This outcome hinges on older workers being employed with an increased inflow to early retirement schemes or eventual higher unemployment likely to lower their pension replacement rates, which will in turn increase income dispersion. This consideration suggests that in order to be favourable to both growth and income equality, increases in the statutory retirement age should be accompanied by measures

to close subsidised pathways to early retirement and to prevent barriers against employment of seniors.

- Employment protection and labour market duality: Several OECD countries have recommendations aimed at easing the strictness of job protection legislation on regular contracts, with a view to reducing labour market duality (Table 2.1). Duality in labour markets disproportionately affects low-wage earners. Workers on temporary contracts typically earn less than workers with similar characteristics on permanent contracts and this gap is particularly high for low-income earners (Fournier and Koske, 2012). At the same time, there is little evidence to suggest that promoting the use of temporary contracts yields sustainably higher employment levels; when employment protection is much stronger for regular than temporary contracts, workers employed under the latter - such as young people - risk getting trapped in a situation where they move between temporary work and unemployment, without getting fully integrated in the labour market. This can have adverse implications for human capital and career progression (OECD, 2004) and ultimately for both income equality and economic growth. In this case, policy reforms that reduce differences in job protection between regular and temporary workers lower inequality through smaller wage dispersion and possibly also via higher employment (Koske et al., 2012).
- Active Labour Market Policies (ALMP): Several countries are recommended to either beef-up or improve the efficiency of resources devoted to activation policies, in part reflecting growing concerns over the scars left by the recent crisis on labour markets and the difficulties faced by the unemployed in resuming work (Table 2.1). Active labour market policy reforms can help to reduce income inequality by raising job seekers' employment chances and their wages once in employment as a result of job-search support, monitoring and skills upgrade via training programmes. However, the effectiveness of ALMPs in reducing unemployment appears to vary widely across different types of programmes, suggesting that programme design is crucial (Martin and Grubb, 2001; Kluve and Schmidt, 2002).
- Female labour market participation: One recommendation common to several OECD countries is to improve the availability of formal care for children and the elderly (Table 2.1). Women are less likely to be employed than men, and those who are working typically earn less than their male counterparts. Women's shorter working hours partly reflect that they assume more caring obligations for children and elderly relatives than men (OECD, 2011b) which in turn plays an important role in explaining differences in the earnings gap. Hence, policies to increase women's labour market participation can contribute to narrow the earnings gap between men and women. Other recommendations to encourage female labour market participation include reforming the tax and benefit system (Germany, Japan) and making childcare support provisions more dependent on second earners' income rather than family income (Netherlands).

Policies to boost human capital

There is evidence that employment rates rise with the level of education (Figure 2.2, OECD 2010a) and that policies promoting the accumulation of human capital are key to improving long-run living standards. However, the theoretical relationship between education and labour income inequality is far from straightforward. Upgrading the educational composition of the workforce can have two separate effects (Knight and Sabot, 1983): i) a composition effect, whereby a rise in the share of highly-educated (high-wage)

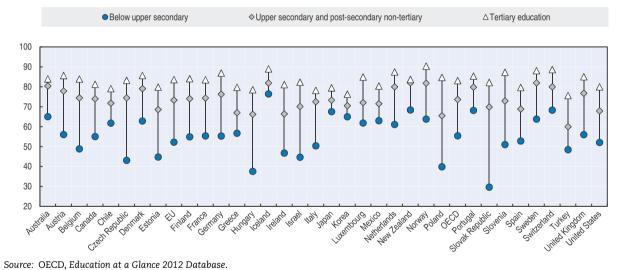
workers raises earnings inequality up to a certain point, but will then lower it as fewer low-education (low-wage) workers remain; and ii) a rate-of-return effect, whereby a rise in the share of highly-educated workers changes the returns to education, with an unclear effect on inequality. Still, many reforms intended to improve living standards through higher human capital are also likely to reduce income inequality. Structural policy recommendations in the area of education include:

- Increasing the quality and extending the provision of early, primary and secondary education: Recent OECD analysis shows that a rise in the share of workers with upper-secondary education is associated with a decline in labour earnings inequality (Fournier and Koske, 2012). Given the evidence showing the importance of upper-secondary attainments on employment prospects, policies at all levels of compulsory education that contribute to increase good-quality attainment at upper-secondary level, may unambiguously contribute to boost GDP per capita as well as reducing wage dispersion. Examples of policy recommendations include better teacher recruitment, training and assessment (Chile, France, India, Indonesia and South Africa), early identification and special support for pupils at risk of dropping out (Denmark), development of individualised teaching (France), enhancing school accountability (Czech Republic, Iceland, New Zealand and Norway) and raising incentives to attract and retain high-school principals and teachers in disadvantaged schools (Czech Republic, France, Iceland).
- Raising tertiary education attainment: Several OECD countries are being recommended to improve enrolment, graduation rates or quality in tertiary education (Table 2.1). Encouraging more students to pursue tertiary studies has a more ambiguous effect on earnings inequality. Recent evidence tentatively indicates that a rise in the number of tertiary graduates in most OECD countries may lower the relative returns to tertiary education (the rate-of-return effect) enough to more than offset the composition effect (an increase in the share of high-wage earners), so that a rise in tertiary graduation rates is associated with lower earnings inequality (Koske et al., 2012; OECD, 2011a).¹⁴
- Promoting equity in access to education: Raising equity in access to all levels of education is a priority for many OECD and BRIICS countries (Table 2.1). Improving general access to education by poorer households contributes to reducing socio-economic segregation, making educational achievement less dependent on economic and social background. Research has also shown that a more equitable distribution of educational opportunities also results in a more equitable distribution of labour income (de Gregorio and Lee, 2002). In this respect, policies that facilitate access to education and enhance learning skills for individuals from disadvantaged backgrounds, such as strengthening links between schools and home, and delaying tracking in education should contribute to reduce income inequality. These policy initiatives are likely to deliver large positive returns over an individual's entire lifetime, particularly for the underprivileged (Chetty et al., 2011; OECD, 2006a).
- Introducing or raising tuition fees in tertiary education: Another common recommendation which is likely to affect equity in access to education is the introduction or increase of tuition fees in tertiary education in combination with student loans whose repayment is contingent on income (Table 2.1). Given the positive expected (private) returns to higher education, introducing tuition fees to make students pay at least part of the cost of tertiary education can lower disposable income inequality measured over the life cycle, especially in countries where income taxation is not very progressive. Considering that

enrolment in tertiary education typically rises with household income, tuition fees may also compensate for the fact that public funding of tertiary education is regressive. In any case, to preserve access to tertiary education for the disadvantaged, tuition fees need to be accompanied by a carefully-designed mixed system of means-tested grants and income-contingent-repayment loans. ¹⁵ This is a recommendation in only a handful of OECD countries (Austria, Denmark, Estonia, France, Poland and Switzerland).

• Expanding vocational education and training (VET) is a general recommendation to many OECD and BRIICS countries alike (Table 2.1). Specific recommendations include strengthening the involvement of employers (Estonia, Turkey), establishing an obligation to offer learning opportunities for youth neither in education, employment or training (Estonia), ensuring that vocational education programmes provide relevant skills for the labour market (United Kingdom), merging vocational training and vocational secondary schools (Hungary), expanding training and apprenticeships in high-unemployment areas (New Zealand), strengthening the VET evaluation system on tracking individual outcomes over time, especially for individuals from disadvantaged backgrounds (Portugal), and developing work place training (Slovak Republic). Insofar as more effective VET is likely to deliver adapted skills formation and higher employability, contributing thereby to address labour market mismatches and reduce unemployment, it is seen as helping both growth and income equality.

Figure 2.2. **Higher employment rates are associated with higher education attainment**Number of 25-64 year-olds in employment as a percentage of the population aged 25 to 64, 2010



Tax and transfer policies

Tax and transfer policies have a sizeable redistributive impact: in the late 2000s, income inequality after taxes and transfers was on average about 31% lower than income before taxes and transfers for total population and 25% for the working-age population in the OECD area (Figure 2.3). Most of the redistributive impact is achieved through cash transfers (pensions, unemployment and child benefits) with taxes contributing by one quarter to inequality reduction (Journard et al., 2012). But the structure of taxation can lead to distortions in the incentives to save, work and invest, reducing economy-wide

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Figure 2.3. Tax and benefit system have a sizeable redistributive impact in OECD countries

A. Working age population: 18 - 65 B. Total population ▲ After tax and transfers - Before tax and transfers ▲ After tax and transfers - Before tax and transfers 0.6 0.6 0.55 0.55 0.5 0.5 0.45 0.45 0.4 0.4 0.35 0.35 0.3 0.3 0 25 0.25 0.2

1. Income inequality is measured by the Gini coefficient based on equivalised household disposable income. Source: OECD, Income Distribution Database.

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productivity and the use of labour, or both (Johansson et al., 2008). Many growth-oriented recommendations concern taxation, and those likely to exert an impact on inequality include:

- Shifting the tax structure away from direct taxes (labour and corporate income taxes) towards consumption, environment and immovable property strengthens incentives to work and invest, and hence economic growth. It is a recommendation for many OECD countries (Table 2.1). The likely positive effects on employment levels helps reducing income inequality, albeit they may take some time to materialise. However, since personal income taxes are progressive while real estate and consumption taxes are at best neutral from a lifetime perspective and in many cases tend to be regressive, such reform potentially hurts equity. The net impact on income inequality depends on the magnitude of these two opposing effects. This recommendation can however be made progressive by appropriate tax design, for instance, through the introduction of thresholds in the taxation of immovable property. 16 The distributional impact of environmental taxation is likely to vary across countries depending on factors such as the interaction with other elements of the tax structure. While the impact on inequality ultimately depends on the type of goods that are taxed, environmental taxes are in general found to be regressive in high-income countries (Johnstone and Alavalapati, 1998).¹⁷
- Curbing tax expenditures: The use of tax expenditures which often most benefit higher-income groups such as tax breaks for health, tertiary education, owner-occupied housing and retirement savings has been growing (OECD, 2010b). Reducing or eliminating these tax breaks, including the preferential tax treatment of home ownership, with features such as tax reliefs on mortgage interest, reduced taxation of capital gains from the sale of a principal residence and non-taxation of imputed rents, may bring both higher productivity by reducing policy-induced distortions in resource allocation and lower inequality. Reducing or eliminating tax expenditures is a priority in Canada, Denmark, Germany, France, Italy, Luxembourg and the United States.

Product market regulation

Relaxing anti-competitive product market regulation brings productivity and sometimes employment gains, therefore spurring economic growth (e.g. Bourlès et al., 2013; Conway et al., 2006). Hence, it is a fairly common recommendation for both OECD and BRIICS countries (Table 2.1). However, its impact on labour income inequality is uncertain. On the one hand, lower barriers to entry curb market power and rents of incumbents, which fosters the entry of new firms and in turn the expansion of economic activity, labour demand and thus employment (Bassanini and Duval, 2006; Griffith et al., 2007; Nicoletti and Scarpetta, 2005; Fiori et al., 2007; Nicoletti et al., 2001). This positive effect on employment may be, at least partially, offset by higher wage dispersion. This is because more intense product market competition tends to reduce the bargaining power of workers and hence the economic rents which accrued in part to workers in formerly protected sectors, with an effect on labour income inequality that depends on the relative wage position of the reformed sector.

Greater competition may also induce firms to innovate and, to the extent that technological progress favours high-skilled workers, could raise wage dispersion. All this implies that effects on income dispersion may vary across sectors. For instance, the redistributive impact of lowering barriers to entry is more likely to be positive in professional services, as the reduction in prices benefit consumers at the expense of a small number of often high-earning incumbents. In sectors where low-skilled labour prevails, such as the retail sector, increased competition may widen the wage distribution, but only insofar as these workers initially benefited from rents. Not surprisingly, the empirical evidence on the impact of product market regulation on inequality is far from conclusive (OECD, 2011a; Nicoletti et al., 2001; Guadalupe, 2007; Koske et al., 2012).

Lowering barriers to trade and FDI: Reducing remaining barriers to FDI or aligning screening procedures with what is granted to the most favoured nation is a policy priority in Indonesia, New Zealand and Australia. Lifting more specific sector barriers to FDI is a priority for Iceland (electricity and fisheries), Mexico (transport, media and fixed-line telecom and financial services), Japan and Korea (in the service sector) and India (aviation, multi-brand retail), where targeted barriers to trade should also be removed. Insofar as some of the rising trend in inequality in many advanced OECD countries can be attributed to growing economic integration of emerging market economies, recommendations aimed at further enhancing productivity through lower barriers to trade and FDI could in principle exacerbate wage inequality. However, lower prices resulting from competitive pressures and the increase in product variety makes all consumers unarguably better off, which may entail some redistribution in favour of low-income groups, depending on the goods concerned and their share in the consumption basket of the various income groups. ¹⁸

Agriculture and energy subsidies

Reducing support to agriculture (such as recommended for the European Union, Iceland, Japan, Norway, Switzerland, Turkey and the United States) by lowering tariffs and excise duties, abolishing quotas on agricultural products and delinking producer support from production (by shifting agricultural support away from price measures towards direct support to farmers) could disproportionally benefit lower income households, insofar as it lowers food prices. As well, the rents created by agricultural support sometimes accrue to high-income farmers – especially when it is granted in the form of price support.

As regards energy subsidies, Indonesia is recommended to substantially reduce fossil-fuel subsidies and to consider also lowering electricity subsidies, coupled with targeted compensation schemes to the poor. Energy subsidies are often motivated on equity grounds, as poorer households' income tends to be spent disproportionally on basic consumption goods, such as food and energy. However, there is a large body of evidence showing that fossil fuel subsidies are regressive. For instance, one study found that in 20 developing countries, the 20% richest households capture 43% of such subsidies (del Granado *et al.*, 2010). Estimates by the International Energy Agency (IEA, 2011) reveal that only 8% of global fossil fuel reaches the lowest income quintile. Substantially reducing electricity and fossil-fuel subsidies and compensating directly the poor would result in a better resource allocation and simultaneously achieve a more equitable distribution of income.

Assessing the net effect on inequality of growth-friendly structural policies

Table 2.2 presents the likely effect of 2013 *Going for Growth* priorities on income inequality in terms of their short-term and long-run effects. The table does not intend to assess the intensity of the impact on inequality of the different policy recommendations, but to illustrate the direction – either reducing or raising inequality – of growth enhancing structural reforms. Several recommendations have an undetermined impact on inequality. This is due to the fact that a specific policy may produce opposing effects on income inequality, so that the final prevailing effect is unknown (e.g. lowering barriers to competition in network industries, shifting the tax burden from direct to indirect taxes) or because the effect on inequality of a particular policy has not been investigated (e.g. increasing infrastructure spending). For many structural reforms, the short-term impact appears to be less clear than the longer term effect, as shown in Table 2.2 by the higher number of policies with an uncertain impact in the short vis-à-vis the longer term. This is typically the case of education policies, where the more favourable effects on human capital accumulation and income distribution appears in the longer term. However, more cases of policy trade-offs appear in the short term.

The environment

Over the past two decades, economic growth has continued to increase the pressure on many natural assets – for instance through rising greenhouse gas (GHG) emissions, waste production or water abstraction (Figure 2.4). And, structural reforms aimed at boosting GDP can further increase the use of natural resources and generate higher pollution. On the other hand, many of the environmental pressures associated with growth in the past may not be sustainable in the future, implying potential growth bottlenecks and environment-related risks to growth. Preventing such outcomes may be costly – in terms of growth in the shorter term – but achieving the *Going for Growth* objective of boosting GDP in the longer term requires a better understanding of the environmental pressures related to growth.

Economic growth does not necessarily imply increased pressures on the environment but most often it does. Even so, these do not need to be detrimental for longer-term well-being as long as the value of generated benefits exceeds that of the total current and future costs of the damage. Sustainable growth can be achieved only if the environmental considerations are appropriately taken into account in economic agents' decisions (OECD, 2011b). In practice however, pricing and regulation of environmental externalities and

Table 2.2. Many Going for Growth 2013 priorities have an undetermined impact on income inequality

	Poten	Potential short-term effects		Estimated long-term effects		
	Number of priorities likely to reduce inequality	Number of priorities likely to raise inequality	Number of priorities with undetermined impact	Number of priorities likely to reduce inequality	Number of priorities likely to raise inequality	Number of priorities with undetermined impact
Australia	1	1	3	1	0	4
Austria	0	0	5	1	0	4
Belgium	1	3	1	0	0	5
Canada	0	0	5	1	0	4
Chile	2	0	3	4	0	1
Czech Republic	1	0	4	4	0	1
Denmark	0	1	4	1	1	3
Estonia	2	0	3	3	0	2
EU	1	0	4	2	0	3
Finland	0	1	4	0	0	5
France	0	0	5	2	0	3
Germany	2	0	3	3	0	2
Greece	1	0	4	2	0	3
Hungary	0	1	4	1	0	4
Iceland	1	0	4	2	0	3
Ireland	2	0	3	2	0	3
Israel	0	0	5	1	0	4
	1	0	4	2	0	3
Italy	2	1	2	3	0	
Japan	2					2
Korea		1	2	3	1	1
Luxembourg	1	0	4	1	0	4
Mexico	0	0	5	2	0	3
Netherlands	0	2	3	1	0	4
New Zealand	0	0	5	1	0	4
Norway	2	1	2	3	0	2
Poland	0	0	5	1	0	4
Portugal	1	1	3	2	0	3
Slovak Republic	2	0	3	3	0	2
Slovenia	0	0	5	1	0	4
Spain	1	2	2	2	0	3
Sweden	0	2	3	1	2	2
Switzerland	2	1	2	3	0	2
Turkey	0	0	5	2	0	3
United Kingdom	1	0	4	3	0	2
United States	2	0	3	3	0	2
Brazil	0	0	5	1	0	4
China	0	0	5	2	0	3
India	0	0	5	2	0	3
Indonesia	1	0	4	3	0	2
Russia	1	0	4	1	0	4
South Africa	1	1	3	2	0	3
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Note: The formal empirical evidence underpinning this analysis focuses only on the longer-term effects of structural policies on income inequality. The distinction between short-term and long-term effects is based on the assumption that the wage-inequality impacts of some reforms materialise faster than employment-equity enhancing benefits.

Real GDP¹
Population

Total GHG emissions²
CO2 content of production³
CO2 content of consumption³

Municipal waste (tonnes)⁴
Water abstraction for public supply⁵

Figure 2.4. **GDP growth in OECD and BRIICS has been accompanied by rising pressures on the environment**Growth between 1990 and 2006-10 average, unless otherwise stated (per cent change)

1. GDP in constant prices, 2005 PPPs.

2. Growth between 1990 and average of years 2005, 2008 and 2010.

25

3. Growth between 1995 and 2005 for CO_2 content of consumption and between 1995 and 2009 for CO_2 content of production.

75

100

- 4. Growth between 1990 and 2005-10 average. China and Russia only for BRIICS, OECD excludes Estonia, Israel and Slovenia.
- 5. Does not include industry and agricultural use. OECD growth between 1990-95 and 2005-08. BRIICS excludes Brazil, growth between 1990-95 and 2005-09 (available years only).

Source: OECD, Green Growth Indicators, International Energy Agency and Food and Agriculture Organization (FAO) Aquastat Databases.

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125

150

175

natural resources use are often inadequate, implying that more growth is likely to bring about more environmental pressures that risk threatening sustainability.

Against this background, concerns about the environmental effects of growthenhancing structural reforms are warranted. Still, it is often not straightforward to assess the effects of reforms on environment *a priori*. The main reasons include:

- Reform design. Environmental outcomes will often depend on the details of the reform
 and its implementation, but in most cases, the level of detail of Going for Growth
 recommendations does not allow a precise assessment of the effects on environment.
- The overall policy setup. Existing policies, in particular environmental policies, and their interaction will often be crucial in determining the outcome. Examples include the existing pricing mechanisms for services of natural assets, the prevalence of subsidies to environmentally harmful activity (e.g. fossil fuels) or the strictness of environmental regulation and its enforcement, both home and abroad.
- Different types of environmental effects. The effects may vary in terms of different environmental externalities and often will be difficult to value and compare. For example, there may be trade-offs among local pollution and (global) emissions or air pollution and land-use changes. A further complication arises from the need to compare environmental effects that may occur at different places and time horizons.
- Uncertainty and knowledge gaps. The effects of economic activity on the environment, of the environment on economic activity and of policy actions are often not fully known, in particular as many of the effects may only materialise in the longer term.

This section assesses the potential side effects of *Going for Growth 2013* policy priorities on the natural environment. Many of these priorities, aimed at maximising GDP per capita,

are likely to have no direct effect on the environment, beyond that due to increasing economic growth. Priorities that raise the costs of environmentally-harmful activity – such as an increase in environmental taxation (tax reform priority), road pricing and congestion charges (infrastructure management), a phasing-out of environmentally harmful subsidies and improvements in the enforcement of (environmental) laws (Table 2.3), can lead to lower use of selected environmental inputs or lower pollution relative to economic activity (cleaner growth) or, in some cases, overall (cleaner GDP). There is no recommendation which

Table 2.3. The effect of Going for Growth priorities on the environment is often uncertain

	Number of recommendations likely to result in more environmentally friendly growth	but the direction depending	Number of recommendations with little or no direct effect on environment
Australia	2	0	3
Austria	1	1	3
Belgium	1	1	3
Canada	1	1	3
Chile	0	0	5
Czech Republic	1	0	4
Denmark	0	1	4
Estonia	1	0	4
European Union	0	2	3
inland	1	0	4
France	1	1	3
Germany	1	0	4
Greece	0	1	4
Hungary	1	1	3
celand	0	2	3
reland	0	1	4
srael	0	1	4
taly	0	1	4
Japan	0	1	4
Korea	1	2	2
Luxembourg	0	1	4
Mexico	1	1	4
Netherlands	0	1	4
New Zealand	1	1	3
Vorway	0	1	4
Poland	1	3	1
Portugal	0	1	4
Slovak Republic	0	1	4
Slovenia	0	1	4
Spain	0	1	4
Sweden	0	1	4
Switzerland	1	1	3
Turkey	0	1	4
Jnited Kingdom	1	2	2
United States	1	1	3
Brazil	0	2	3
China	1	1	3
India	0	1	4
ndonesia	2	1	2
Russia	1	0	3
South Africa	0	1	4

directly and unambiguously hurts the environment. However, for a large number of priorities, there are likely to be effects, but those are mixed and unclear *ex ante*, due to reasons mentioned above. Below, the relevant priorities are reviewed one by one, emphasising the potential environmental consequences.

Reforming the tax system

One of the most common priorities is to make the tax structure more growth-friendly, by reducing the taxation on income, particularly labour income, while increasing less-distortive sources of revenue, such as property, consumption and environmental taxation (Table 2.4, approximately a third of the countries). The latter can be considered a "win-win" priority, benefiting both growth and reducing its environmental footprint, insofar as higher environmental taxation should discourage environmentally harmful or unsustainable activity (OECD, 2010c). The positive effects on the environment may however be weakened at the global level by possible cross-border leakage and increased emissions from international transport (OECD, 2010d), as some of the economic activity is shifted to countries with less strict environmental standards and enforcement (Box 2.2). Finally, in some cases new or higher environmental taxation would replace or make redundant environmental regulations already in place, limiting the positive effects on environment.

The reliance on environmentally-related tax revenues varies among countries (Figure 2.5), and has generally been decreasing. Of the countries with a recommendation to rely more on such tax sources, France, Belgium and the United States tend to have relatively low environmentally-related revenues (both with respect to total revenues and to GDP), with Finland, Estonia and Korea at the other end of the spectrum. Notably, the bulk of environmentally-related tax revenues concern fuel taxes (on average over 70%, mainly from transport) which in some countries may already be taxed beyond the associated environmental (and non-environmental) externalities.²⁰ On the other hand, many opportunities to tax environmental externalities are foregone or pursued inefficiently, and various forms of subsidies to environmentally-harmful activity can be seen as a negative (environmental) taxation.²¹

Tax reform recommendations often also encourage the broadening of tax bases, by getting rid of tax expenditures and rate differentiation (Denmark, France, Germany, Greece and Italy). The effects on the environment will depend on the nature of exemptions that are scrapped. Countries have in place, for various reasons, numerous special tax treatments of activities linked with negative environmental consequences, such as commuting by private cars, company car provisions, use of emission-intensive fuels (e.g. coal, heavy oils) and use of pesticides or fertilisers, while at the same time a number of tax preferences may concern activities with positive environmental consequences, such as public transport, cleaner and more efficient heating.

Improving infrastructure provision and management

Improving the provision or management of infrastructure is a priority for several countries. The environmental effects will depend on implementation details. In countries where congestion charges or road pricing are recommended as a mean to increase economic efficiency and growth (Australia, New Zealand, Switzerland and the United Kingdom), they are likely to also benefit the environment, with the magnitude of the effects linked to the introduced prices as well as the availability of alternatives, such as public transport, more efficient vehicles or opportunities for teleworking. Benefits are

Table 2.4. The effects of Going for Growth 2013 policy recommendations on the environment

Going for Growth Policy recommendations		Potential channels	Countries with a Going for Growth priority in this area			
A. Reforms that are likely to improve environmental performance of growth						
Tax policy	Shift tax structures away from income taxation towards less distortive taxation (including environmental taxation)	+ Higher environmental taxation likely to reduce environmentally- harmful activity.	AUT, BEL, CAN, CZE, EST, FIN, FRA, DEU, HUN, KOR, POL, CHE, USA			
Infrastructure and network sector policies	Introduce congestion pricing/road pricing	+ Likely to reduce road use and related emissions, including local pollution.	AUS, CHE, GBR, NZL			
Other policies	Reduce energy subsidies (fossil-fuels)	+ Lower energy consumption, hence less GHG emissions and local pollution.	IDN			
	Improve the rule of law	+ Can help improve the enforcement of environmental policies.	CHN, MEX, IDN, RUS			
		determined impact on environmental performance he way they are implemented or due to offsetting effects				
Tax policies	Broaden tax bases and reduce tax expenditures	+ Tax preferences for polluting behaviour can be scrapped, (e.g. commuting by car, heating with coal), possibly - Tax exemptions for cleaner activities can be scrapped (e.g. commuting by public transport)	DNK, FRA, DEU, GRC, ITA			
Infrastructure and network sector policies	Reduce entry barriers and enhance competition in network sectors (e.g. energy, rail)	+ Can facilitate entry of more efficient (and potentially cleaner) producers and suppliers, in particular of renewable energy producers or rail operators. Reducing price controls may curb use of some users (e.g. of energy) and related environmental externalities. - With inappropriate pricing of environmental externalities, can facilitate entry of less-environmentally friendly producers. Lower prices may lead to higher use (rebound effects). +/- Further complicated due to the presence of EU emission trading system (ETS) in some countries (Box 2.2).	AUT, BEL, BRA, CHN, CAN, EU, FRA, GRC, HUN, ISL, IND, IDN, IRL, ISR, KOR, MEX, NZL, POL, PRT, SVK, SVN, ZAF, TUR			
	Improve infrastructure provision and management	+ Increasing availability and efficiency of public transport is likely to reduce associated emissions. Easing congestion by enhancing the quantity and quality of infrastructure may reduce local pollution and facilitate entry of cleaner production (e.g. renewables). New or improved infrastructure can reduce electricity losses, water leakage and improve water quality. – More infrastructure provision (e.g. road, airports) is likely to increase its use contributing to higher transport-related emissions. Infrastructure construction will often require land use change (e.g. deforestation).	AUS, BRA, CAN, GBR, EU, IND, IDN, NZL, POL			
Other policies	Reduce producer support to agriculture	+ Likely to limit oversupply, decreasing GHG emissions (e.g. from husbandry) and fertiliser/pesticide use. May also reduce the demand for land used for (intensive) agriculture. - The reduction of support to eco-farming may discourage cleaner agriculture, and increasing reliance on imports may shift pollution (and emissions) abroad and increase pollution from international transport.	EU, ISL, KOR, JPN, NOR, TUR, CHE, USA			
	Streamline land regulation and planning laws, reduce barriers to mobility	+ Less strict zoning regulation (e.g. for retailers) could result in improved traffic patterns. Devoting more land to nature (e.g. rather than agriculture) can improve biodiversity, etc. - The direction of land-use change is often likely to be environmentally harmful (e.g. deforestation, reduction of potential for environmental services).	CHN, IND, IDN, LUX, NLD, POL, SWE, GBR			
	Reduce rent regulation and housing subsidies	+ Can reduce car commuting and related emissions if people move closer to their work places. - Can increase car commuting and related emissions if people move further from their work places and public transport availability is not sufficient.	DNK, LUX, NLD, POL, SWE			

Box 2.2. Some environmental aspects may be difficult to assess in a national policy context

Pollution and natural resource depletion may occur at different levels: local, national, regional or global and be influenced by international trade patterns. Going for Growth recommendations, with their focus on national policies and national growth outcomes, will often be hard to assess in such contexts.

For global or regional issues, common pool resource sustainability requires that the common environmental burden – for example, gas emissions in case of climate change or fish catch in case of fisheries – needs to be under control, while the distribution among countries is less relevant, at least from the environmental point of view. In principle, this implies that emission reductions are not strictly necessary in each single country and some countries may have, or develop, a competitive advantage in emission-intensive production, within the limits of the overall sustainable environmental burden. In fact, from an overall economic efficiency perspective, it would make sense that reductions are made where they are least costly.

Cross-border leakage and the relationship among trade, growth and the environment have been given significant attention since the 1970s (see for instance Copeland and Taylor, 2004 or Baker *et al.*, 2007), with overall little consensus on the importance of the phenomenon. While in principle, natural conditions and societal choice can imply varying valuations of environmental externalities across countries; this can underlie co-ordination failure in terms of management of global or regional environmental resources and risks.

In case of the thirty European countries (EU27 plus Norway, Iceland and Liechtenstein) where about half of $\rm CO_2$ emissions are capped, with permits traded under the EU Emission Trading Scheme, the pricing mechanisms should guarantee the reduction as stipulated by the cap in the zone as a whole and at a uniform abatement cost. Any additional country-specific policy instruments that address emissions under the cap may reduce them in a given country, but, as long as the cap is binding, will not affect overall emissions. Hence for instance, measures facilitating entry of renewable energy producers – which can have various other benefits – will have no effect on the total emission levels. By lowering the price of emissions, the additional measures can however yield less tangible, though not necessarily less important benefits, such as facilitating future tightening of the cap (Braathen, 2011).

likely to materialize both on a global scale (lower CO_2 emissions from fuel combustion) and more locally in terms of reducing local pollution and the pressure on devoting new land to infrastructure.

Improving the investment climate and opportunities in order to increase the capacity and quality of infrastructure are recommended, in various forms, for a number of OECD and BRIICS countries (Table 2.4). Expanding network infrastructure is generally likely to require allocating new land and to encourage use, increasing associated externalities. More roads or airports will lead to more traffic, and expanding electricity grids in countries such as India or Indonesia, will increase the use of fossil-fuel generated electricity. However, investment into improved, more-efficient infrastructure solutions (e.g. public transport or ring roads) can help reduce congestion bottlenecks, contributing to lower local pollution for instance around cities, a significant problem in many countries (Figure 2.6). Investment in electricity grids and storage may be necessary to reduce losses and accommodate energy produced from intermittent renewable sources, such as wind or solar. In developing

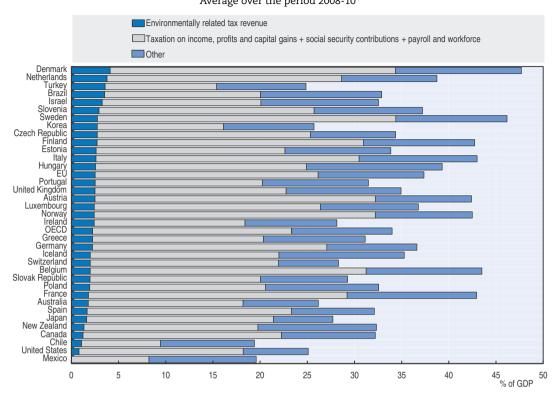


Figure 2.5. The reliance on environmentally-related tax revenue differs across countries

Average over the period 2008-10¹

1. Average over 2008-09 for Canada and the Slovak Republic.
Source: OECD, Revenue Statistics Database and OECD/European Environment Agency Database on instruments used for environmental policy and natural resources management, www.oecd.org/env/policies/database.

StatLink http://dx.doi.org/10.1787/888932775763

countries, access to electricity grids can displace heavily polluting diesel generators, reducing the overall environmental damage. Similarly, improved, more efficient water distribution and sewage treatment infrastructures can reduce water leakage and improve water quality. In the case of infrastructure expansion, potential trade-offs between environmental effects and economic and development goals, as well as risks associated with long-term lock-in into dirty technologies, underline the need for a thorough assessment of environmental impacts as part of the planning and decision making process to assure that net benefits outweigh the potential costs of adverse impacts (OECD, World Bank and UN, 2012), and for adequate pricing to prevent the overutilization of underpriced networks.

Reducing entry barriers and enhancing competition in network sectors

Many priorities aim at improving competition in network sectors, in particular reducing barriers to entry (a priority for roughly half of the countries, Table 2.4). To the extent these result in lowering prices, e.g. in the energy or rail sectors, they can stimulate demand through a so-called rebound effect. In countries where environmental externalities are underpriced (e.g. due to environmentally harmful subsidies), this will bring about excess negative environmental consequences, as there will be an unwarranted competitive advantage for supplying energy from less-environmentally friendly sources.

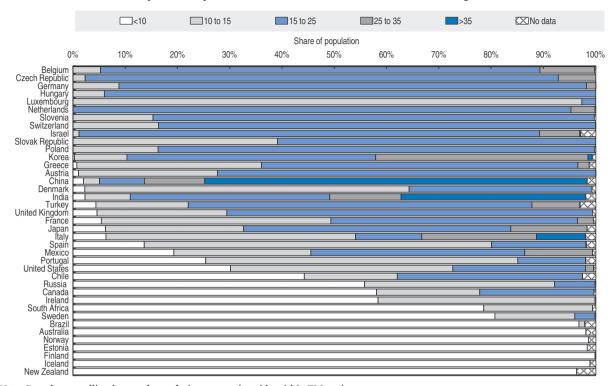


Figure 2.6. **Air pollution is a problem in many BRIICS and OECD countries**Population exposure to harmful PM2.5 levels, 2001-06 annual averages¹

Note: Based on satellite data and population counts in grids within TL2 regions.

1. World Health Organisation (WHO) thresholds, in micrograms of particulate matter smaller than 2.5 microns in diameter. Exposure to air pollution exceeding 10 micrograms of PM2.5 per cubic meter is considered by the WHO as significantly increasing health risks. Source: OECD (2011), OECD Regions at a Glance 2011, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888932775782

Overall, the stricter the environmental externality pricing and regulation in a country, the more likely the reduction of entry barriers and strengthening competition is to benefit cleaner and more efficient producers or service providers. Lower relative prices of train travel and freight may displace transport from roads, with potentially positive net environmental effects. In European countries participating in the EU emission trading system (ETS), lower electricity prices will not increase total emissions (as long as the ETS cap is binding), and may actually even reduce them, for instance if households would switch from heating or cooking with fossil fuels, where emissions are uncapped to electricity, where emissions are covered by the ETS (Box 2.2). Furthermore, electricity sector liberalisation can remove implicit barriers to the expansion of renewable energy such as in e.g. Belgium, France, where the effects of widespread support for renewable energy have been constrained by the barriers to grid access (OECD, 2011d, 2012b). In a similar manner, recommendations to improve the integration of electricity markets (in Canada and among European Union countries) may facilitate the entry and improve the competitiveness of renewable energy producers (Benatia et al., 2013).

Reducing producer support in agriculture

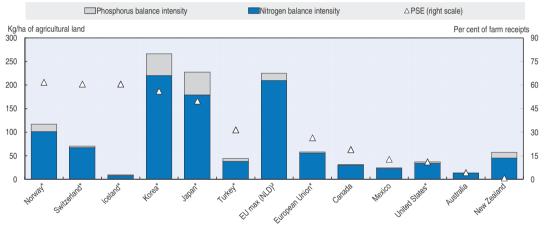
Agriculture has significant impacts on the environment and producer support, particularly the part linked to output, can amplify the negative environmental effects (OECD, 2005; 2008b). For instance, producer support can encourage higher production

levels, more land allocation to agriculture, or more intensive use of fertilisers and pesticides. At the same time, some existing support schemes are designed to limit some of the negative environmental effects, for example through encouraging more (environmentally) sustainable farming practices or by being conditional on environmental improvements (e.g. afforestation). The reduction of protection of domestic producers, while beneficial for growth and most likely for the domestic environment, may also mean increased cross-border leakage of environmental damage and increased emissions from international transport.

Currently, reducing producer support is a growth priority for Iceland, Japan, Korea, Norway, Switzerland, the United States and the European Union. For Turkey, the recommendation focuses on delinking support from production and shifting away from price support measures. In the majority of countries concerned, high support is coupled with high nutrient surpluses (Figure 2.7), which are responsible for local water and soil pollution, and would likely be reduced if the support is withdrawn.

Figure 2.7. Agriculture puts strong pressure on the environment, in particular in countries with high producer support

Producer support estimates and nutrient balance intensities in OECD countries, (2005-08)¹



- 1. The symbol * denotes countries with a priority recommendation on reducing producer support to agriculture.
- EU MAX (NLD) indicates the European Union country with the maximum nitrate surpluses (Netherlands). Data on PSE for individual EU countries is not available.

Source: OECD, Producer and Consumer Support Estimates and Green Growth Indicators Databases.

StatLink http://dx.doi.org/10.1787/888932775801

Reducing energy subsidies

A substantial reduction in fossil fuel subsidies, as recommended for Indonesia, is a "win-win" recommendation in terms of stimulating GDP growth and improving environmental outcomes. Fossil fuel subsidies encourage wasteful use of energy, blur market signals and undermine the competitiveness of fuel efficient or cleaner technologies, for instance of renewable energy (IEA, OPEC, OECD and World Bank, 2011). As a result, they contribute to higher GHG emissions and air pollution. In Indonesia, such subsidies amount to over USD 15.8 billion per year or roughly 2¾ per cent of GDP (2008-10 average of energy consumption subsidies).

Reforming the housing market and land regulation

Several countries have GDP-enhancing recommendations regarding land regulation and the housing market. Reforms of land planning and zoning laws and building permit procedures are likely to result in changes in the use of land and in transport patterns and various related environmental impacts such as on pollution, GHG emissions or biodiversity. To the extent they reduce the amount of land devoted to "nature", these are likely to be negative, but the overall effect will depend on how environmental considerations are taken into account in planning procedures, transport policies, policies addressing urban sprawl and building codes. A similar caveat concerns the effects of reducing subsidies to home ownership and easing rent regulation, which will influence commuting and housing patterns in the longer term.

Framework conditions for green growth

A large number of countries have *Going for Growth* recommendations without any clear, direct impacts on the intensity of use of environmental services, but are important for facilitating a shift to green growth over the longer term. Such framework policies include:

- Enhancing competition and lowering entry and exit barriers in the area of product market regulation.
- Labour market reforms that aim at improving its ability to adjust to economic challenges and opportunities.
- Improved education policies can facilitate finding and hiring of workers with appropriate skills.
- Removing obstacles to investment, both domestic and foreign, and improving the business climate.
- Improving the framework conditions for innovation combined with more effective and efficient R&D policies to stimulate the actual development and deployment of new, cleaner technologies – a crucial aspect of achieving more growth coupled with sustainable environmental externalities.

Good framework structural policies are likely to increase the responsiveness to the pricing of environmental externalities and to environmental regulation by improving the transmission of price signals and the efficient reallocation of resources. Similarly, the adequate enforcement of environmental laws and regulations will be crucial for improved environmental outcomes. In this light the recommendations for China, Indonesia, Mexico and Russia to improve law enforcement, are likely also to reduce the environmental burden of growth.

The effects of priorities on government budgets and external accounts

One factor contributing to the severity of the crisis was the prior build-up of large and unsustainable fiscal and current account imbalances, in part mirroring credit excesses fuelled by capital flows, which resulted in growing financial instability. Both government and external imbalances have to some extent narrowed over the past two or three years, and given widespread commitments and – in some cases – market pressures for budget consolidation, government imbalances are expected to continue to diminish over the next few years. But in the case of current account imbalances, the extent to which the recent narrowing reflects cyclical rather than structural factors remains unclear. Insofar as they

affect economy-wide saving and investment, the set of structural policy priorities identified to boost productivity and employment also have implications for external imbalances, in a way that may or may not contribute to further unwinding. This section highlights the likely impact on budget deficits and current account imbalances of recommendations for OECD and BRIICS' countries in the areas identified as country-specific policy priorities and reported in Chapter 1.

Even though concerns about financial fragilities also include the state of the financial sector, the extent to which growth-focused recommendations contribute to underpin or undermine stability in the financial sector is not examined in this chapter. The reason is that while some structural policies have an impact on financial sector stability (see Box 2.3), those having the most significant influence concern specific areas of financial sector policies – such as banking supervision and macro-prudential regulations – that require strong international co-ordination. Such policies are thus treated separately in *Going for Growth* as they are priorities common to all countries.

Box 2.3. The effect of policy priorities on financial stability

Growth-enhancing structural policies can also foster financial stability *via* their impact on international capital flows. Recent work has shown that restrictions on FDI, product market regulation, and biases embedded in the tax system affect the financial account structure, which in turn affects the likelihood of a crisis occurring (OECD, 2012c). This impact comes over and above the effect of macroeconomic imbalances, such as misaligned exchange rates or fiscally unsustainable positions.¹

Barriers to FDI and strict product market regulation have been found to increase the likelihood of systemic banking crisis by encouraging a shift in external liabilities towards bank debt and away from FDI. In this regard, recommendations in the direction of easing such barriers can be expected to strengthen financial stability, even though the contribution is likely to be modest in most cases.

The structure of taxation can also have an impact on the composition of the financial account. Many countries allow for larger tax deductibility of interest payments than of dividends or capital gains, which bias corporate financing towards debt, including towards external debt, which again increases the risk of a crisis event. Thus, removing the bias in corporate taxation favouring debt financing, such as recommended in Australia can support financial stability.

In a similar vein, the favourable tax treatment of home ownership, such as allowing for mortgage-interest relief without parallel taxation of imputed rents may encourage excessive credit growth to the non-financial sector, contributing to the formation of housing bubbles, increasing in turn the external debt share and the probability of a systemic banking crisis. Removing special tax treatments of owner-occupied housing as recommended in a number of countries would also go in the direction of stronger financial stability.

- Financial market reforms, domestic banking supervision and macro-prudential regulations designed to reduce financial fragility are not covered in country-specific Going for Growth priorities as this in an area where collective rather than isolated action is needed (see Box 1.1 in Going for Growth 2011).
- A growing body of research highlights that rapid increases in domestic credit have can have predictive power over subsequent crisis (Gourinchas and Obstfled, 2012; Jordà, Schularick and Taylor, 2011; Schularick and Taylor, 2012; Borio and Lowe, 2002).

Structural reforms that improve the fiscal balance may also contribute to reducing current account deficits by increasing the economy-wide saving rate. In looking at the implications for the current account, the section considers the impact of structural reforms on both public and private investment and saving rates, and hence including the effect occurring through a change in the fiscal balance.

The budgetary implications of policy priorities

Growth-enhancing structural reforms can have both a direct (first-round) impact and an induced (second-round) effect on government budgets. They have a direct impact when their implementation either requires additional public resources or – less frequently – entails initial expenditure cutbacks or revenue increases. The direct impact will thus vary across specific policy recommendations. As for the induced effect, the magnitude is likely to differ depending on whether reforms boost growth mainly through employment or productivity (Elmeskov and Sutherland, 2012). In both cases, the result is higher public revenues through tax base expansion. However, reforms that raise growth mainly through productivity gains will also increase public spending insofar as public and private sector wages grow more or less in parallel, and that social transfers are set as a proportion of income (e.g. replacement rates as in the case of retirement or unemployment benefits). The net induced effect on the budget is likely to be moderate, except perhaps when efficiency gains are achieved directly in public-sector activities.

In contrast, when the boost to growth comes mainly through sustainably higher employment rates, the induced effect is more likely to be a permanent increase in the budget balance, provided the employment gains are concentrated in the private sector (OECD, 2010f). In such a case, both the wage and non-wage components of public-sector spending fall as a share of GDP, in addition to the potential reduction in social transfers, such as unemployment or retirement benefits. Estimates based on past sensitivity of government revenues and expenditures to changes in employment suggest that a 1 percentage point permanent increase in the employment rate could generate a sustained improvement in the budget balance of between 0.3 to 0.8 percentage points. Countries expected to benefit the most are those with a high initial level of public-sector expenditures relative to GDP (e.g. continental Europe and Nordic countries).

The scope for budgetary gains from reform is therefore substantial – in particular for countries with relatively low employment rates – but the overall size will also depend on the direct budgetary impact of the policies recommended to boost growth, i.e. how much public resources need to be spent up-front to implement the reform. The main policy recommendations likely to have significant direct effect on the budget are listed in Table 2.5, along with the set of countries concerned by the suggested reforms. The recommendations are grouped according to the more specific challenge they address and the direction of their direct budgetary impact. Given that policy suggestions in the domain of taxation are made to be initially revenue-neutral, the recommendations listed in Table 2.5 are those affecting public outlays. That said, while being neutral in the short term, the most common recommendation in the area of taxation – shifting the composition away from direct (labour and capital) and towards indirect (consumption, property and environment) sources – may improve budget positions in the long run insofar as it raises both overall efficiency and employment.

Of all the recommendations that are made primarily with a view to raise employment rates, those aimed at boosting job creation, notably through reforms of labour and product

Table 2.5. The effects of Going for Growth 2013 policy recommendations on public spending

Going for Growth Policy recon	nmendations	Countries with a Going for Growth priority in this area
	A. Reforms likely to entail higher public spen	ding
Policies to encourage labour force participation	Expand provisions of (affordable) childcare services Reform tax-benefit system and introduce in-work benefits to make work pay Increase the coverage and/or the replacement rates of unemployment insurance benefits	CHL, CZE, IRL, JPN, KOR, SVK, CHE, GBR JPN, KOR, NLD CHL, IDN, ITA, JPN, KOR, TUR
Policies to improve job- search incentives and outcomes	Intensify activation measures such as job-search assistance programmes and/or targeted job subsidies	IRL, FIN, FRA, GRC, LUX, PRT, SVK, ESP, ZAF, USA
Policies to foster human capital development and skills formation	Ensure adequate school resources and infrastructure Reduce inequality in educational opportunities through increased resources devoted to students from disadvantaged background at primary and secondary school levels Expand enrolment and reduce inequalities in access to tertiary education	MEX, IND, ZAF CHN, CZE, FRA, IDN, NZL, PRT, SVK, ZAF, USA CHN, DEU BRA, EST, FRA, GBR, HUN, ITA, NZL, PRT, SVK, ZAF
Policies to stimulate	Enhance the provision and/or effectiveness of VET Bolster investment in public infrastructure	ESP, CHE, TUR BRA, IDN, POL
investment and productivity	Enhance support for R&D investment	AUS, EST, IRL, RUS
	B. Reforms providing scope for reducing public s	pending
Policies to encourage labour force participation	Lower replacement rates of unemployment insurance and taper them with duration Raise statutory retirement age/or close path to early retirement Reduce length of parental leave	FIN, LUX, NLD AUT, FIN, HUN, LUX, POL, SLO CZE, SVK
	Review access to disability programmes and monitor degree of work capacity of benefit recipients	DNK, EST, NLD, NOR, POL, SWE, GBR, USA
Policies to foster human capital development and skills formation	Introduce or raise tuition fees at the tertiary level with income-contingent student loan programmes	AUT, CAN, CHL, CZE, DEU, EST, FRA, POL, SVK, ESP, CHE, SVN
Policies to raise productivity	Review the functioning of public sector services to improve efficiency of deliveries and quality of outcomes Phase-out subsidies in agriculture, energy and housing Expand user charges for road infrastructure	CZE, GRC, HUN, ISL, NZL, RUS, CHE, GBR, USA DNK, EU, ISL, IDN, JPN, KOR, LUX, NOR, POL, CHE, USA AUS, NZL, GBR

market regulations and wage bargaining arrangements, are less likely to have significant direct budgetary impacts. In contrast, recommendations to encourage labour force participation and improve job-search incentives and effectiveness may have significant implications, and these are covered in Table 2.5.

- Among the various recommendations aimed at raising labour force participation, those that concern women more directly, such as the provisions of childcare services and reforms of the tax-benefit system, can entail substantial direct budgetary costs.²⁴ The recommendations to extend the coverage or to raise replacement rates of unemployment insurance benefits also imply higher direct government transfers, the magnitude of which depends not only on the level and evolution of unemployment, but also on whether additional resources are required to administer the programme. Conversely, the two most common recommendations to foster the participation of older workers raising retirement age and closing paths to early retirement have the potential to generate substantial direct budgetary saving.
- Several countries facing high unemployment rates and a large proportion of long-term unemployed are recommended to strengthen ALMPs, in particular job-search assistance and training programmes. The direct budgetary cost of such measures can be substantial. As an illustration, earlier empirical analysis has suggested that the unemployment rate in the average OECD country could be reduced by 1 percentage point if spending on ALMPs was raised to the level observed in Sweden (OECD, 2007).²⁵ In most

countries where this is recommended, current spending on job placement services is between 0.1 to 0.2 per cent of GDP below the level observed in Sweden, with a particularly large gap in Greece, Luxembourg, Slovak Republic, South Africa and the United States. In Finland and Luxembourg, higher spending on activation measures could be partly funded in the short term by savings achieved through reductions in the level and duration of unemployment benefits, such as recommended for these countries (Table 2.5).

As mentioned above, the induced (longer-term) effect of productivity-enhancing reforms on government budgets is not clear, as the rise in tax revenues generated tends to be at least partially offset by higher spending. At the same time, most of the recommendations directed at raising productivity have little direct budgetary impact, and some may even entail spending cutbacks.

- In countries where this is recommended, a reduction in subsidies to agriculture (European Union, Iceland, Japan, Korea, Norway and Switzerland), energy (Indonesia) and housing (Denmark, Luxembourg, Poland and the United States) will generate direct savings to the budget, even if poorer households are compensated as suggested in the case of energy. The same goes for the recommendations to introduce or expand user fees for public services, in particular tuition fees in tertiary education (12 countries) and road pricing (Australia, New Zealand and the United Kingdom).
- In principle, reforms to improve the efficiency of public administrations, as recommended for several countries (see Table 2.5), will also directly improve the budget position. In the short term, however, such reform may entail initial costs if investment in modern equipment and reorganisation is required.
- In other countries, a number of recommendations aimed at boosting human capital and productivity do imply a direct cost to the budget. This is notably the case of suggestions to raise public investment in physical infrastructure (including schools) and innovation (R&D), as well as to devote more resources in education, in particular to help students from disadvantaged background and to increase access to vocational education and training.

The effect of policy priorities on current accounts through their impact on saving and investment

From a national accounts perspective, a surplus or deficit in a country's current account is reflected in a corresponding gap between domestic saving and investment as well as in an offsetting balance in the capital account. In many cases, structural reforms have effects on private and public saving and investment, and thereby on the external balance (see OECD, 2011e, Fournier and Koske, 2010). The main recommendations likely to either weaken or strengthen the current account are reported in Table 2.6.

Labour market and income-support policies influence current accounts mainly via saving

One of the main motives for households' saving is to provide a financial buffer in the event of a sudden drop in income – for instance resulting from a job loss – or of unforeseen spending such as in the case of a health incident involving costly and uninsured care. Virtually all OECD countries provide fairly extended social insurance against these risks, albeit to varying degrees of coverage and generosity. Another key motive for saving is to maintain consumption after working life. In this regard, the nature of public pension

Table 2.6. The effects of Going for Growth 2013 policy recommendations on current account balances

Going for Growth Policy recomm	Countries with a Going for Growth priority in this area		
	A. Reforms likely t	o weaken the current account	
Policies to encourage labour force participation	Reforms aimed at extending and beefing-up the coverage of social protection, in particular the scope of unemployment benefits.	Contributes by reducing households' saving for precautionary motives.	CHL, IDN, ITA, JPN, KOR, TUR
	Reforms aimed at raising labour force participation of women, notably through reform of tax and benefit systems and improved access to affordable childcare	Contributes also to reduce precautionary saving by providing households with better diversified source of incomes	CHE, CHL, CZE, DEU, GBR, IRL, ISR, JPN, NLD, SVK,
	Postponing retirement age to raise labour participation of older workers	Reduce private saving as workers have extra years to build retirement income.	FIN, HUN, LUX, SLO
Policies to boost investment and productivity	Foster public and private investment in public infrastructures Raising support to innovation Lowering of barriers to trade and FDI	Contribute to raise total investment in the short and medium term. Saving is also expected to rise as productivity gains are realised, but by less than investment	BRA, IND, IDN, POL AUS, EST, IRL, RUS AUS, CAN, IND, IDN, JPN, KOR, MEX, NZL, RUS
Policies to reduce barriers to competition in services sectors	Reforms of product market regulation aimed at lowering barriers to entry in network industries as well as (retail trade and professional services	Contributes by raising private investment in the short run. $ \\$	All countries except CZE, EST,NLD, SWE, CHE, GBR, USA
Policies to improve resource allocation	Reforms aimed at increasing the depth, sophistication and resilience of financial sector, including through stronger competition in banking and better regulation.	Contributes mainly by raising investment, but also by lowering saving in countries where the financial system is underdeveloped.	BRA, CHN, IDN.
	B. Reforms that are like	ly to strengthen the current account	
Policies to improve job-search incentives	Reforms of benefit entitlements that result in reduced access and/or lower level of benefits (e.g. closing of early retirement pathways, pension reform that lower benefits, reduce levels or duration of unemployment replacement rates).	Aside from raising public saving, contributes by increasing household saving for precautionary motives.	CAN, FIN, HUN, LUX , NLD, POL, SLO
Policies to raise competitiveness and efficiency	Shift in the composition of taxation away from labour and capital and towards consumption, property and environmental bases.	Contributes by raising private saving by more than investment in the short term. The effect can fade in the medium term.	DNK, FIN, HUN, JPN, KOR, NOR, SWE, USA

systems as well as the extent to which they are perceived to deliver adequate income at retirement also determines the saving behaviour of individuals and households.

Against this background, reforms having an impact on the coverage and level of social protection can be expected to affect current account positions in the short and medium term as they influence the need for precautionary and retirement saving by households. Recent empirical evidence found this effect to be most substantial and robust in the case of public spending on health care, but some support was also uncovered for saving effects from unemployment benefits and pensions (Kerdrain *et al.*, 2010).

• In countries characterised by dual labour markets and low participation of specific groups, or where formal-sector employment rates remain well below average, one priority is to increase the levels and duration of unemployment benefits (e.g. Chile and Indonesia) or to extend the coverage to poorly protected workers (e.g. Italy, Japan, Korea and Turkey). Given that such measures reduce the need for precautionary saving, they are likely to lower private saving in the short and medium run. And, since they also

entail higher government transfers, their impact on total saving, and thus on the current account could be even larger, depending on if and how they are funded.

- Conversely, in countries where the design and extent of social protection has resulted in weak job-search incentives or in early exit from the labour force, suggested reforms are likely to encourage higher private saving for precautionary motives. These include, for example, recommendations to lower the level and duration of unemployment income support (e.g. Belgium, Finland, France, Ireland, Luxembourg, the Netherlands and Portugal) or to tighten access to disability programmes (e.g. Austria, Denmark, Estonia, the Netherlands, Norway, Poland, the United Kingdom and the United States). Since they can also contribute to raise public saving, they can be expected to strengthen the current account.
- In a number of countries (e.g. Chile, Czech Republic, Ireland, Japan, Korea, the Netherlands, Slovak Republic, Switzerland and the United Kingdom), recommendations aimed at raising labour force participation of women through reforms of the tax and benefit systems or improved access to affordable childcare could lower household saving. This is because as the sources of household income get better diversified, there may be less perceived need for precautionary saving. However, the magnitude of this effect could be tempered by the fact that some of these measures are often targeted at low-income households who often have little saving capacity in the first place.
- Reforms to the health system are advocated in New Zealand, Switzerland, the United Kingdom and the United States, but in most cases recommendations focus on reducing costs through efficiency gains. The effect of such reforms on private saving is thus far from clear, but insofar as this may reduce public expenditures, total saving may be higher.
- In countries where reform of the general pension systems is seen as a priority, the most common recommendation consists in postponing retirement age (e.g. Finland, Hungary, Luxembourg and Slovenia), which is expected to reduce private saving, at least temporarily, as workers have extra working years to build adequate retirement income. In the medium term, however, this effect on total saving and the current account can be more than offset by the favourable impact of the reform on public saving.

Product and financial market policies affect current accounts primarily through their impact on investment

Recommendations that seek to strengthen incentives to invest in physical capital, intangible assets (human and knowledge capital) and public infrastructures will tend to weaken the current account position independently of whether they are recorded in national accounts as investment (tangible assets) or consumption (and thus lower saving as in the case of many intangible assets). While the bulk of recommendations in these areas focus on using existing resources more efficiently and on improving the return on investment – in which case the effect on total investment and the current account may only be felt in the medium term – some may entail a short-term increase in resources invested, either public or private.

• This is the case for instance with recommendations aimed directly at fostering investment in infrastructure (Brazil, India, Indonesia and New Zealand) or at increasing support for innovation (Australia, Estonia, Ireland and Russia). In the area of education,

recommendations to ensure adequate school resources (Mexico, Turkey, India and Indonesia) may also require a short-term boost in public or private resources.

- In a number of countries, a reduction in corporate taxation is advocated as part of a broader reform of the tax system. Since this is favourable to private investment, it would tend to weaken the current account. However, given that the broader reform involves a shift in the composition from corporate income tax towards consumption tax, it also reduces the price of domestically-produced goods relative to imported goods (the so-called fiscal devaluation effect), possibly boosting thereby net exports and the current account in the short run.²⁶ Considering that the competitiveness effect may partly eroded by nominal exchange rate adjustments, the effect could be stronger for euro area countries.
- For countries where this is recommended (see Table 2.6), the removal of barriers to FDI is
 expected to raise total domestic investment, though the magnitude of the overall effect
 depends on whether the recommendation applies to economy-wide activities or to a
 specific sector.
- One set of recommendations which applies to most countries consist in reforming product market regulation to achieve efficiency gains through stronger exposure to competition. By favouring new firms' entry, price reductions and higher demand, a more competitive environment can stimulate investment, in particular if this is accompanied by a lower regulatory burden (Alesina et al., 2005). At the same time, by reducing internally-generated funds, lower mark-ups may depress investment, at least in the short term. Since many of the recommendations to reduce regulatory barriers to competition are directed at specific sectors, which of these effects will dominate initially is likely to depend on industry-specific characteristics such as the existing market structure and the degree of exposure to rapid technological changes. For instance, the opening-up of markets in sectors dominated by large (public or private) incumbents may initially lead to restructuring and thus a temporary fall in investment. It may also depend on whether reductions in barriers to competition affect primarily tradable or non-tradable industries. In the case of trade-exposed sectors, an intensification of competition may improve net exports through competitiveness channels. However, the majority of recommendations concern sectors such as network industries, professional services and retail distribution, whose exposure to foreign trade is for the most part relatively low. In any case, empirical evidence suggests that product market liberalisation (as measured by a decline in the OECD index of product market regulation) tends on average to stimulate aggregate investment even in the short run, but that the impact is small (Kerdrain et al., 2010).

Insofar as they successfully induce future productivity gains, these recommendations will contribute to further raise investment in the medium term, which would tend to weaken the current account. The net effect on the latter thus depends on if and how saving is affected. In principle, private households can anticipate future productivity (and income) gains and raise consumption above current income. Such consumption-smoothing behaviour would reduce saving in the short term, thereby further weakening the current account (Fournier and Koske, 2010; Vogel, 2011). In practice, however, this effect is not supported by empirical evidence, which rather suggests that stronger productivity tends to be associated with an increase in private and total saving in both the short and medium run, implying that households gradually adjust consumption as income gains are realised.

Hence, given the simultaneous rise in saving and investment, productivity-enhancing reforms may not have a large net effect on the current account in the short term, but may lead to a gradually widening deficit over time as consumption catches-up with the rise in income and the initial boost on saving partly fades away.²⁷

Reforms designed to foster the development of the financial sector can raise investment by improving access to better diversified sources of credit at lower costs, a view which tends to be supported by empirical evidence. Given that at the same time empirical studies generally point to either a negative or no impact of financial development on saving, the net effect is likely to be a weakening of the current account. Promoting the development and efficiency of the financial sector is seen as a priority for a number of BRIICs countries. However, the more specific recommendations concern policy distortions such as those regarding lending and deposit rates (China), mandated credit provisions (Brazil, India), the prevalence (China) or limited exposure of state-controlled financial institutions to competition (Brazil) that may have contributed to a misallocation of capital. Hence, the aggregate effect from removing these distortions on investment and the current account may not be very significant, at least in the short run.

Assessing the overall impact of growth-oriented policies on current account balances

Table 2.7 provides an overview for individual countries of the likely impact in the short term of recommended reforms on the current account. As in the case of income inequality and the environment (see above), the table is only indicative of the likely direction of the effects and no attempt is made to gauge their magnitude. Overall, for around half of the recommended reforms, the direction of the effect on the current account balance is difficult to determine a priori. The other half is split more or less equally between those that weaken the current account and those more likely to strengthen it. Taking these results at face value, and ignoring potential differences in the magnitude of effects, Figure 2.8 provides an illustration of the extent to which the set of recommendations might contribute to narrow imbalances or, in contrast, create conflict (trade-offs) with this objective. Among deficit countries, the number of cases where the recommendations would lead to complementarities between the growth and external account objectives is nearly the same as for cases where trade-offs would arise. As for surplus countries, there would be somewhat more cases of trade-offs than complementarities, although the latter group would include some of the larger countries (e.q. Germany, Japan and Korea).

Table 2.7. Number of Going for Growth 2013 priorities likely to weaken or strengthen the current account

	Number of recommendations likely to weaken the current account	Number of recommendations likely to strengthen the current account	Number of recommendations with an undetermined impact on the current account
Australia	2	1	2
Austria	1	2	2
Belgium	1	1	3
Canada	2	1	2
Chile	2	0	3
Czech Republic	1	1	3
Denmark	1	2	2
Estonia	0	2	3
Finland	1	2	2
France	1	1	3
Germany	2	1	2
Greece	0	1	4
Hungary	0	3	2
Iceland	1	0	4
Ireland	3	0	2
Israel	1	1	3
Italy	0	2	3
Japan	2	1	2
Korea	2	1	2
Luxembourg	1	2	2
Mexico	2	0	3
Netherlands	0	3	2
New Zealand	2	0	3
Norway	0	2	3
Poland	1	2	2
Portugal	1	2	2
Slovak Republic	1	0	4
Slovenia	0	2	3
Spain	1	1	3
Sweden	0	2	3
Switzerland	1	1	3
Turkey	2	0	3
United Kingdom	1	0	4
United States	0	1	4
Brazil	1	2	2
China	2	0	3
India	3	0	2
Indonesia	1	1	3
Russia	1	2	2
South Africa	1	2	2

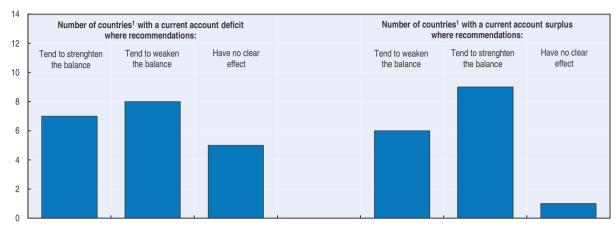


Figure 2.8. Recommended reforms have a mixed impact on current account imbalances

1. This includes countries where the current account balance is estimated to have exceeded 1 percentage point of GDP in 2012. Source: OECD Economic Outlook 92 Database.

StatLink http://dx.doi.org/10.1787/888932775820

Notes

- 1. Highlights of this work includes the 2011 report "How's Life?" (OECD, 2011f) and the interactive well-being assessment tool "Your Better Life Index".
- 2. For a revision of the limitations of GDP to gauge material living standards and well-being see also Chapter 6 of the 2006 edition of *Going for Growth* on "Alternative Measures of Well-Being" (OECD, 2006b). Some measures that extend GDP numbers to non-market production, and thereby may come closer to indicators of well-being, have also been explored the 2011 edition of *Going for Growth* (Annex 1 of OECD, 2011e). See also Jones and Klenow (2010) for a summary statistic for nations' flow of welfare.
- 3. On income inequality see Chapter 5 of Going for Growth 2012 (OECD, 2012a), OECD (2011a) and OECD (2008a); on green growth see OECD (2011c), de Serres et al. (2010) and OECD (2008b); on fiscal and current account balances see Chapter 1 and Chapter 5 of Going for Growth 2011 (OECD, 2011e) and Kerdrain et al. (2010).
- 4. These difficulties notwithstanding, an attempt to assess the redistributive impact of in-kind transfers can be found in Chapter 9 of OECD (2011a).
- 5. Given that such a policy may also strengthen the attachment to the labour market of individuals at higher risk of being unemployed improving thereby their human capital development and career progression the effect on inequality may not be so clear from a life-time perspective.
- 6. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.
- 7. For an extensive discussion of the trade-off between higher overall employment rates and higher wage dispersion brought about by less generous unemployment benefit replacement rates, declining union coverage and lower minimum-to-median wage rates, see OECD (2011a).
- 8. This is assuming that the income distribution of pension income is not too different from that of labour income. In fact, in several countries, pension replacement rates are significantly higher at low than at higher income levels, suggesting a more compressed income distribution. Furthermore, in ten OECD countries, the share of individuals below the poverty threshold is found to be lower among pensioners than among the working population (OECD, 2011g).
- 9. One recent study has shown that once older workers lose employment, it can be very difficult for them to find work, especially those with low education, and that when they find work, they generally experience sharp wage declines (Johnson and Mommaerts, 2011).

- 10. The relative poverty rate of women is higher than that of men in most OECD countries. The difference is more pronounced for pension-age than for working-age women as a result of lower labour market participation of women, especially in the past (which translates in less pension rights), and their longer life expectancy (OECD, 2008a).
- 11. See, for instance, Fournier and Koske (2012); Ponthieux and Meurs (2005).
- 12. See Chapter 1 of the 2011 edition of *Going for Growth* (OECD, 2011e). Although it can take up to a generation until all the GDP per capita gains from such reforms are realised, small improvements labour force skills can produce large gains in future GDP per capita (OECD, 2010b).
- 13. The direction of the change in relative returns depends on many factors, in particular the substitutability or complementarity between low- and highly-educated workers.
- 14. It needs also to be borne in mind that while the returns to lower-secondary education have declined over time, those to post-secondary education have risen (Lemieux, 2006; Machado and Mata, 2001), an indication that the demand for skills has outpaced its supply, which is possibly associated with skill-biased technological change.
- 15. Empirical evidence suggests that any negative effects of tuition fees on participation rates can be fully offset through improvements in the financial support for students (OECD, 2008c; Heller, 1999). For a discussion on the practical implementation of income-contingent loans and student financial support schemes see OECD (2008c). Also where this leads to better funding of higher-education institutions, the rise in tuition fees should take place in a context where the governance of these institutions is conducive to transparent and accountable management of funds.
- 16. The introduction of thresholds is important also to avoid that higher property taxation feed through higher tenant's rents for poor individuals.
- 17. For instance, electricity and water taxes are particularly regressive, while car registration duties and petrol taxes may even be progressive.
- 18. In this case, the effect is not on income distribution but on inequality in consumption.
- 19. In the case of Indonesia, World Bank (2012) analysis shows that in 2009 40% of the gasoline subsidies went to the richest 10% and less than 1% to the bottom 10%. See also G20 Green Growth Strategy for an extensive and well-documented discussion on the regressivity of fossil fuels subsidies (IEA, OPEC, OECD and World Bank, 2011).
- 20. For instance, this is often claimed to be the case for many European OECD countries (Parry and Small, 2005; Ley and Boccardo, 2010). For several OECD countries, excise taxation is considered exceeding the externalities related to petrol, but underpricing diesel (Égert, 2012). In addition, a large share of environmentally-related revenues comes from motor vehicle taxes (over 20% on average).
- 21. Revenues can also be generated from auctioned tradable (emission) permits (Duval, 2008; de Serres et al., 2010).
- 22. According to the IEA, some 370 million people in India and Indonesia combined lack access to the electricity grid (Database on 2009 electricity access, IEA, 2011).
- 23. More broadly, support to the consumption of fossil fuels in OECD countries is estimated to reach some USD 55-90 billion annually (about 0.2% of GDP), while exceeding USD 100 billion in the BRIICS (some 1½ per cent of GDP). The figures for fossil fuel support in OECD and BRIICS countries are calculated using different methodologies and hence not directly comparable. BRIICS data is 2008-10 average and is based on the price-gap methodology (IEA, 2011). OECD data (2005-11) comes from OECD inventories of fossil fuel support (OECD, 2013).
- 24. For instance, empirical estimates based on past country experience suggest that an increase of 20% in childcare spending may be required to raise female participation rates by 1 percentage point (Jaumotte, 2003).
- 25. This is an average result based on past experience with reforms among OECD countries. The analysis shows that countries that spend more on activation measures per unemployed worker (as a share of GDP per capita) tend to have significantly lower unemployment rates (see also Bassanini and Duval, 2006).
- 26. In the short term, assuming unchanged government expenditures, private consumption must fall sufficiently relative to income to accommodate the rise in investment and exports, implying that private saving must increase by more than investment.

27. This is consistent with evidence showing that higher productivity growth tends to boost both saving and investment in the short and longer run, but with the impact on saving falling short of that on investment (Kerdrain *et al.*, 2010).

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From:

Economic Policy Reforms 2013Going for Growth

Access the complete publication at:

https://doi.org/10.1787/growth-2013-en

Please cite this chapter as:

OECD (2013), "The effects of growth-enhancing structural reforms on other policy objectives", in *Economic Policy Reforms 2013: Going for Growth*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/growth-2013-4-en

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