WIFO
1030 WIEN, ARSENAL, OBJEKT 20
TEL. 798 26 01 • FAX 798 93 86

ÖSTERREICHISCHES INSTITUT FÜR WIRTSCHAFTSFORSCHUNG

Monitoring of Austria's Efforts Within the Europe 2020 Strategy

Update 2013-14

Jürgen Janger, Julia Bock-Schappelwein, Michael Böheim, Ulrike Famira-Mühlberger, Thomas Horvath, Daniela Kletzan-Slamanig, Stefan Schönfelder, Margit Schratzenstaller (WIFO), Maria M. Hofmarcher-Holzhacker (Health System Intelligence)

Research assistance: Kathrin Hranyai, Katharina Köberl, Anna Strauss, Andrea Sutrich, Dietmar Weinberger (WIFO)

June 2014

WIFO
ÖSTERREICHISCHES INSTITUT FÜR WIRTSCHAFTSFORSCHUNG
AUSTRIAN INSTITUTE OF ECONOMIC RESEARCH

Monitoring of Austria's Efforts Within the Europe 2020 Strategy

Update 2013-14

Jürgen Janger, Julia Bock-Schappelwein, Michael Böheim, Ulrike Famira-Mühlberger, Thomas Horvath, Daniela Kletzan-Slamanig, Stefan Schönfelder, Margit Schratzenstaller (WIFO), Maria M. Hofmarcher-Holzhacker (Health System Intelligence)

June 2014

Austrian Institute of Economic Research, Health System Intelligence

Commissioned by the Federal Chancellery

Internal review: Stefan Ederer (WIFO) • Research assistance: Kathrin Hranyai, Katharina Köberl, Anna Strauss, Andrea Sutrich, Dietmar Weinberger (WIFO)

Abstract

Following the European Commission's guidelines, WIFO has undertaken a monitoring of the implementation of the Austrian National Reform Programme within the framework of the European 2020 growth strategy. The main components are an analysis of Austria's progress towards reaching its five EU 2020 headline goals in the areas of R&D, education, employment, poverty, and the environment and an analysis of policies put forward by the Austrian government to address the country-specific recommendations (CSR) made by the EU to Austria. Overall, Austria is on track to meet or has already met all targets with the exception of private sector R&D expenditure and greenhouse gases. Austria has put in place policies to partly address all of the 5 CSR analysed in this report.

Please refer to: Juergen.Janger@wifo.ac.at

2014/307-3/S/WIFO-Projektnummer: 7813

Medieninhaber (Verleger), Herausgeber und Hersteller: Österreichisches Institut für Wirtschaftsforschung,
1030 Wien, Arsenal, Objekt 20 • Tel. (+43 1) 798 26 01-0 • Fax (+43 1) 798 93 86 • http://www.wifo.ac.at/ • Verlags- und Herstellungsort: Wien

Verkaufspreis: 70,00 € • Kostenloser Download: http://www.wifo.ac.at/wwa/pubid/47415

Deutsche Kurzfassung

Die Europäische Wachstumsstrategie Europa 2020 versucht, intelligentes, nachhaltiges und integratives Wirtschaftswachstum zu fördern. Österreich hat sich im Rahmen dieser Strategie zur Erreichung von Zielen in fünf Bereichen (Forschung, Bildung, Beschäftigung, Armut und Umwelt) bis zum Jahr 2020 verpflichtet: eine F&E-Quote von 3.76% des BIP, einen Anteil von 38% Hochschulabsolventen an der Bevölkerung im Alter von 30 bis 34 Jahren, einen Anteil der frühen SchulabgängerInnen von weniger als 9.5% an der Bevölkerung im Alter von 18 bis 24, eine Beschäftigungsquote von 77 bis 78% gemessen an der Bevölkerung im Alter von 20 bis 64, eine Reduktion der von Armut betroffenen oder armutsgefährdeten Personen um 235.000, eine Steigerung des Anteils der erneuerbaren Energien auf 34%; eine Reduktion der Treibhausgasemissionen um 16% gegenüber 1990. 1990. Das indikative Ziel für Energieeffizienz bis 2020 wurde im „Österreichischen Fortschrittsbericht Energieeffizienz 2013“[1] mit 1.100 PJ Endenergieverbrauch festgelegt.

Österreich befindet sich in fast allen Bereichen deutlich über dem EU-Durchschnitt im Sinn eines besseren Niveaus, mit Ausnahme der Hochschulabsolventen, wo Österreich sogar inklusive der Absolventen der berufsbildenden, maturaführenden Schulen (BHS) nicht den Durchschnitt der EU erreicht. Ein Vergleich der vergangenen Wachstumsraten mit jenen, die notwendig sind, um die Ziele in den einzelnen Bereichen zu erreichen, führt zur in nachfolgender Tabelle zusammengefassten Einschätzung[2]: die F&E-Ausgaben des privaten Sektors und die Treibhausgasemissionen befinden sich nicht auf ihrem Zielpfad, während die öffentlichen F&E-Ausgaben, Beschäftigung, Bildung und der Anteil der Erneuerbaren Energien auf ihr Ziel zusteuern. [3]

[1] https://www.bmwfw.gv.at/EnergieUndBergbau/Energieeffizienz/PublishingImages/Fortschrittsbericht_und_indikative_Zielmeldung_final.pdf

[2] Die Einschätzung, ob die einzelnen Ziele über oder unter ihrem Zielpfad sind, beruht nicht auf tatsächlichen Prognosen, die im Rahmen dieser Studie nicht durchführbar wären, sondern auf einem Vergleich eines Basisszenarios – alle Entwicklungen gehen gleich weiter wie im Durchschnitt der Jahre 2000-2012 – mit einem Szenario, in dem Ziele erreicht werden. Dadurch lässt sich abschätzen, ob in der Zukunft dynamischere Entwicklungen zur Zielerreichung notwendig sind, die allenfalls weitere politische Interventionen erfordern.

[3] Wegen eines Bruches in der Zeitreihe im Jahr 2012, die zur Analyse des Armutszieles verwendet wird, kann die aktuelle Version dieses Berichtes die rezente Entwicklung des Armutszieles nicht quantifizieren. Die hier angeführten Werte beziehen sich auf das Jahr 2011.

Tabelle: Zielerreichung in den fünf Bereichen

Indikator	Ziel	Ziel v s. aktueller Wert (Ziel = 100)	Zielprojektion 2020 (Wachstum letztes Jahr)	Zielprojektion 2020 (Wachstum 2000-2012)	Zielprojektion v s. Ziel (Ziel = 100)
F&E-Quote in % des BIP	3.76	76	2.91	3.34	89
Hochschulabsolv enten in % der 30-34j. Bev ölkerung	38	101	52.72	48.09	127
SchulabgängerInnen in % der 18-24j. Bev ölkerung	9.5	125	3.76	6.16	154
Beschäftigungsquote in% der 20-64j. Bev ölkerung	77-78	97-98	78.80	79.36	102
Zahl der armutsgefährdeten Personen	-235,000	92	181000	-122429	52
Treibhausgasemissionen (in Mio. t CO2)	47.7	86	40.17	49.90	96
Anteil erneuerbarer Energien (in %)	34	95	44.20	41.69	123
Energetischer Endv erbrauch (Gesamter Endv erbrauch in PJ)	1100	100	1040.44	1079.02	102

Anm: Für Armut aufgrund eines Datenbruchs keine aktuellen Zahlen

Der Zielfortschritt sollte aber nicht eng definiert für die Prioritätensetzung innerhalb der österreichischen Europa 2020 Ziele eingesetzt werden, nicht zuletzt wegen des unterschiedlichen Anspruchsniveaus der Zielsetzungen. Anstrengungen im Bereich Umwelt und Wirtschaft sollten vielmehr auf einer umfassenden Einschätzung der Bestimmungsfaktoren von intelligentem, nachhaltigem und integrativem Wirtschaftswachstum beruhen. Die Interpretation der Zielfortschritte sollte darüber hinaus Zielkonflikte und Interdependenzen zwischen den Zielen berücksichtigen.

Beispielsweise kann sich das Ziel der Steigerung der Hochschulabsolventen positiv auf die Erreichung der F&E-Quote auswirken, indem es Strukturwandel in Richtung forschungsintensivere Sektoren begünstigt. Eine Reduktion der Zahl der frühen SchulabgängerInnen ergänzt sehr gut die Beschäftigungs- und Armutsziele, nachdem Bildungsleistungen sehr wichtig für die Beschäftigung niedrig Qualifizierter und für die Armutsprävention sind. Zielkonflikte können zwischen dem F&E- und Beschäftigungsziel einerseits und den Umweltzielen andererseits entstehen, nachdem derzeit noch keine absolute Entkopplung von Treibhausgasemissionen und Energieverbrauch vom Wirtschaftswachstum in Österreich verzeichnet werden kann.

Österreich hat zusätzlich Empfehlungen zur Reform seiner Wirtschaftspolitik in den nachfolgenden Bereichen erhalten (länderspezifische Empfehlungen, englische Abkürzung CSR):[4]

2. Pensionen
3. Beschäftigung
4. Gesundheit und Pflege
5. Bildung
6. Wettbewerb und Regulierung

[4] Aufgeführt werden nur jene CSR, die in der Studie analysiert wurden, ohne CSR 1 (Fiskalpolitik) und 7 (Finanzmarkt/Bankenstabilisierung).

Die Einschätzung, ob die Maßnahmen im NRP ausreichen, die Ziele zu erreichen und adäquat auf die CSR einzugehen, beruht auf der Einschätzung durch Experten des WIFO, ob das NRP auf die Hauptansatzpunkte für die Verbesserung in den einzelnen Bereichen eingeht, auf die wesentlichsten Probleme, die einer Verbesserung im Weg stehen.

Hinsichtlich der beiden Zielbereiche, die sich derzeit nicht auf ihren Zielpfaden befinden, wird folgende Einschätzung getroffen: Im Bereich F&E besteht eine umfassende Strategie (FTI Strategie 2020), die fast alle Engpässe berücksichtigt, um sowohl die F&E-Quote als auch intelligentes Wachstum insgesamt zu fördern. Dementsprechend kommt es hier auf die Umsetzung an. Im Bereich Treibhausgasemissionen sind eventuell weitere Maßnahmen erforderlich, hier wird es auch stark auf die weitere wirtschaftliche Entwicklung ankommen.

In den anderen Zielbereichen und auch für die CSR, gibt es in der Regel signifikante Maßnahmen, die auf die Beseitigung wesentlicher Engpässe abzielen. Einige Engpässe werden derzeit aber noch nicht oder nur teilweise adressiert, wie z.B. die frühe Trennung nach Fähigkeiten von Schulkindern im Alter von 10 für das Hochschulabsolventenziel, die Vorverlegung der Pensionsalterharmonisierung zwischen Männern und Frauen für das Beschäftigungsziel und Umweltmaßnahmen, die auf einer Veränderung von Preissignalen beruhen, etc. Die Maßnahmen sollten dennoch ausreichend für die Zielerreichung im Bereich Bildung, Armut, Beschäftigung und erneuerbare Energien sein. Auf alle CSR wird durch entsprechende Maßnahmen zumindest teilweise eingegangen.

Diese Einschätzung sollte mit sehr großer Vorsicht interpretiert werden. Sie beruht nicht auf einer vertiefenden Analyse der Maßnahmen. Zudem ist die Vergangenheit in der Regel kein besonders guter Projektionsfaktor und externe Ereignisse wie z.B. eine erneute Krise des Euroraums könnten schwerwiegende Folgen auf die Zielerreichung haben. Selbst wenn Ziele sich auf ihren Zielpfaden befinden, sollte dies daher kein Grund für ein Nachlassen der Anstrengungen darstellen. Die Einschätzung des NRP sollte aber eine breite Orientierung für Maßnahmenrichtungsentscheidungen liefern, im Sinn von welche Hauptansatzpunkte bestehen für Maßnahmen zur Zielerreichung bzw. werden diese Hauptansatzpunkte prinzipiell durch das NRP adressiert.

Insgesamt zeichnen sich Österreichs Anstrengungen, die Europa 2020-Ziele zu erreichen und auf die CSR einzugehen, durch eine Vielzahl von Maßnahmen aus, auch wenn auf einige Problemfelder bisher nicht eingegangen wurde. Eine Inangriffnahme bisher nicht adressierter Problembereiche könnte in einigen Bereichen sogar zu einer Zielübererfüllung führen. Besonders im Bereich der Hochschulabsolventen könnte dies bewirken, dass sich Österreich auch in diesem Bereich über dem EU-Durchschnitt positioniert, allerdings aufgrund der zeitlichen Wirkungsverzögerungen erst nach 2020. Der Bildungsbereich insgesamt ergänzt sich sehr positiv mit anderen Zielbereichen wie z.B. F&E, Beschäftigung und Armut, sodass Maßnahmen im Bereich Bildung eine sehr hohe Wirkung entfalten könnten.

Executive summary

The new European growth strategy Europe 2020 aims to foster smart, sustainable and inclusive growth. Within this strategy, Austria has committed to headline targets in five areas: R&D of 3.76% of GDP, a share of higher education graduates in the population aged 30-34 of 38%, a share of early school leaving of 9.5%, 77-78% employment rate of the population aged 20-64, a reduction of 235.000 individuals living in or at risk of poverty, a share of renewable energies of 34% and a reduction of greenhouse gases by 16%. The target for energy efficiency is set at PJ 1100 of final energy consumption.[5] Overall Austria performs above the EU average in all areas, with the exception of higher education, where Austria is below the EU average, even when graduates from upper secondary vocational education (Isced 4a) are included.

The analysis of previous trends and the comparison with growth rates required to reach the targets show that private R&D expenditure,, and greenhouse gas emissions are not on track, while public R&D expenditure, employment, education and the share of renewables are on track. This is not least related to the fact that targets differ in their level of ambition. [6]

Table: Austria's progress towards Europe 2020 targets

Indicator	Target	Actual values relative to target (target value = 100)	Target projection 2020 (based on last year's growth)	Target projection 2020 (based on growth rate 2000-2013*)	Target projection vs. target (target = 100)
R&D ratio	3.76	76	2.91	3.34	89
Share of population aged 30-34 with tertiary education	38	101	52.72	48.09	127
Early school leavers	9.5	0	3.76	6.16	154
Employment rate (20-64)	77-78	97-98	78.80	79.36	102
Number of individuals living in poverty or at risk of poverty	-235,000	92	181000	-122429	52
GHG emissions in Mio t CO2	47.7	86	40.17	49.90	96
Renewable Energy Share in %	34	95	44.20	41.69	123
Final energy consumption as total final consumption in PJ	1100	100	1040.44	1079.02	102

Note: Due to a break in the time series no value for the poverty target in 2012 is reported

Progress towards reaching the targets should not be viewed in a narrow sense to merely guide priority-setting in efforts towards reaching Europe 2020 goals and nothing more. Economic and environmental efforts should be based on a comprehensive assessment of the determinants and drivers of smart, sustainable and inclusive growth. Interpretation of targets should take account of conflicts but also areas where targets overlap or indeed complement each other (complementarities, e.g. between education and R&D, poverty, employment).

[5] https://www.bmwfw.gv.at/EnergieUndBergbau/Energieeffizienz/PublishingImages/Fortschrittsbericht_und_indikative_Zielmeldung_final.pdf

[6] Due to a break in the time series used to assess the poverty target in 2012, the current version of this report cannot evaluate the most recent development in poverty trends. Values shown here refer to 2011 values.

The European Union has also addressed the following recommendations (CSR) to Austria:[7]

2. Pensions
3. Employment
4. Health care
5. Education
6. Competition and regulation

Assessing whether the NRP measures are sufficient to reach the targets or address the CSRs is based on an assessment by WIFO experts whether the NRP contains key policy options necessary to reach targets and address the CSR appropriately. In the two target areas which are on track, the assessment is as follows: In R&D, there is a comprehensive innovation strategy by the Austrian government in place which addresses almost all key policy options to both increase R&D intensity and to foster smart growth. Hence the focus should be on implementation. As regards greenhouse gases, new measures may be necessary, in particular when economic growth picks up. In the other areas, there are usually several substantial measures addressing important bottlenecks, but also key policy options left unaddressed, such as e.g. early streaming for the higher education target, no earlier harmonisation of the statutory retirement age between men and women for the employment target, few policies affecting price signals in the environmental domain etc. Currently the envisaged measures should be sufficient in the case of the targets for employment, poverty, education and renewables. The measures for R&D are probably insufficient (given the target horizon of 2020, as structural change is slow). However, a comprehensive policy set has been announced which if implemented should significantly boost smart and inclusive growth. All the CSR have at least been partially addressed by measures described in the Austrian National Reform Programme.

Of course, such an assessment has to be regarded with extreme caution. First of all, it is not based on an in-depth evaluation of policies. Furthermore, the past is rarely a good guide to the future. External events such as a renewed euro crisis may at any time knock the current trends off track leaving the target unachievable. Even if efforts are on track, we must guard against complacency. The assessment should merely broadly orientate policy makers in their decisions.

Overall, Austria's efforts to reach the Europe 2020 targets and to address CSRs have led to the implementation of a multitude of measures, even if some key policy options have so far not been used. If addressed, this could lead to going above and beyond the target. Particularly in higher education, this could lead to Austria positioning itself above the EU average also in this area, as it is above the EU average in all the other areas. Education in general comple-

[7] Only the ones analyzed in this study are listed. CSR 1 (fiscal policy) and CSR 7 (financial market stabilization) are not listed.

ments and is linked to so many other target areas, such as R&D, employment and poverty, that it should be regarded as a key policy option in itself.

1. Introduction: a new European growth strategy

In March 2010, the European Commission proposed a new European growth strategy called "Europe 2020 – A European strategy for smart, sustainable and inclusive growth", succeeding the Lisbon Strategy which covered the first decade of the new millennium. There are several components – 3 growth priorities, key performance targets in five areas and seven flagship initiatives or core policy initiatives containing policy proposals aimed at reaching the targets.[8]

The three growth priorities qualify the kind of growth the European Union has in mind. First, growth should be smart through investments in education, research and innovation; second, it should be sustainable both from an environmental and a competitiveness point of view; third, it should be inclusive, i.e. lead to rising employment and lower poverty. The targets in five key areas and the flagship initiatives mirror the efforts to achieve these three priorities.

- Smart growth
  - Targets
    - R&D: 3% of the EU's GDP to be invested in R&D
    - Education: at least 40% of 30-34–year-olds completing third level education, Reducing school drop-out rates below 10%
  - Flagship initiatives
    - Digital agenda for Europe
    - Innovation Union
    - Youth on the move
- Inclusive growth
  - Targets
    - Employment: 75% of the 20-64 year-olds to be employed
    - Poverty: at least 20 million fewer people in or at risk of poverty and social exclusion
  - Flagship initiatives
    - An agenda for new skills and jobs
    - European platform against poverty
- Sustainable growth
  - Targets
    - greenhouse gas emissions 20% lower than 1990 levels
    - 20% of energy from renewables
    - 20% increase in energy efficiency
  - Flagship initiatives

[8] For a comprehensive yet concise presentation of the Europe 2020 strategy see http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/index_en.htm

- Resource efficient Europe
- An industrial policy for the globalisation era

A key weakness of the Lisbon Strategy, only partially addressed by the mid-term changes in 2005, was the lack of commitment to implement reforms at the national level. As a result, the Europe 2020 strategy is implemented using a much more complex governance model supposed to foster commitment to reforms at the national level. At the outset of the new strategy, the European Commission and the Member States formulated the so-called Integrated Guidelines, or guidelines for overall economic policy coordination. As opposed to the Lisbon Strategy, the Member States choose national adaptations of the European key targets, so that there are national goals for each Member State. These of course are more tailored and take account of the large differences between Member States' economic, social and environmental development. The result is that the targets should also be more realistic and increase commitment at the national level to their achievement, rather than prescribing, e.g. an R&D ratio of 3% of GDP to a country currently featuring a ratio of 0.6% of GDP (Bulgaria) and to a country featuring a ratio of 3.6% (Finland). Average, European-wide targets are too ambitious for some and not ambitious enough for others. As a consequence of the key targets and the other common European components (flagship initiatives, integrated guidelines), the National Reform Programmes remain coordinated, without failing to address national issues.

The yearly governance mechanism is referred to as the European Semester[9]. This starts at the end of each year with the annual growth survey – which doubles up as a progress report on reaching the targets at the European level and as a report outlining reform priorities again at the European level. In April of the following year, the EU Member States submit their plans for sound public finances (Stability or Convergence Programmes SCP) and reforms and measures to make progress towards smart, sustainable and inclusive growth (the National Reform Programmes NRP). In June, the European Commission assesses these programmes and provides country-specific recommendations as and where appropriate. The Council discusses and the European Council endorses the recommendations. Finally, at the end of June or in early July, the Council formally adopts the country-specific recommendations (CSR).

The Europe 2020 strategy has definitely made great progress in comparison with Lisbon 2020: there are a handful of core targets, a vision for the future and at the same time a very detailed governance mechanism outlining possible ways to reach these targets. In recent years, the CSR seem to have somewhat gained in importance over the Europe 2020 targets. The present study looks as a result also more in detail at the CSR. The overall success of the strategy will depend on solving the current financial and debt crisis; and on the Member States' efforts to implement reforms at the national level.

In this report, WIFO assesses the implementation of the Austrian National Reform Programmes, i.e. the measures implemented/suggested in order to reach the targets and to address the

[9] See http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/priorities/economic-governance/index_en.htm.

CSR. The main components of this report are the developing of target paths to assess the progress in reaching the EU 2020 headline goals, key policy options to boost performance in the target areas as well as a detailed analysis of performance and policies in the areas addressed by the CSR. The ultimate objective of the analysis is to pinpoint Austria's position on its way towards meeting the EU2020 goals and to assess whether the policies implemented or proposed are in principle sufficient to reach the goals and to address the CSR, or whether important policies needed to reach the targets or to address the CSR are lacking. As such, the report wants to support Austria's efforts to reach the targets by providing timely information to policy makers on where additional efforts are needed and on where the efforts in place seem to be well on track.

2. Target paths and policies for reaching Austria's national Europe 2020 targets

This chapter illustrates the implementation of the European headline targets at the national level. For each target area – R&D, education, employment, poverty and environment – we first outline past trends before we show target paths. These target paths are normative paths based on constant changes, i.e. the distance to the target from the actual value in 2010 shrinks each year by the same relative amount. They are not forecasts of target values, which would be highly questionable given the long time horizon (2020). Their simple purpose is to provide a yardstick against which actual values can be compared. The yearly target values should not be taken as an economic goal per se, what matters is the goal for the year 2020. The yearly comparison between target and actual value however indicates Austria's current position which can inform policy making. The dynamics necessary for reaching the goals will be compared with past trends to assess the probability of reaching the targets. From this analysis, it is in principle possible to prioritise policy areas needed to catch up on targets where current or past performance is well below the required performance. By the same token policies for reaching targets where current performance is on track do not need special emphasis or intensification. Of course, such decisions should not be made only on the basis of the targets but against the background of a comprehensive assessment of the requirements for smart, inclusive and sustainable growth.

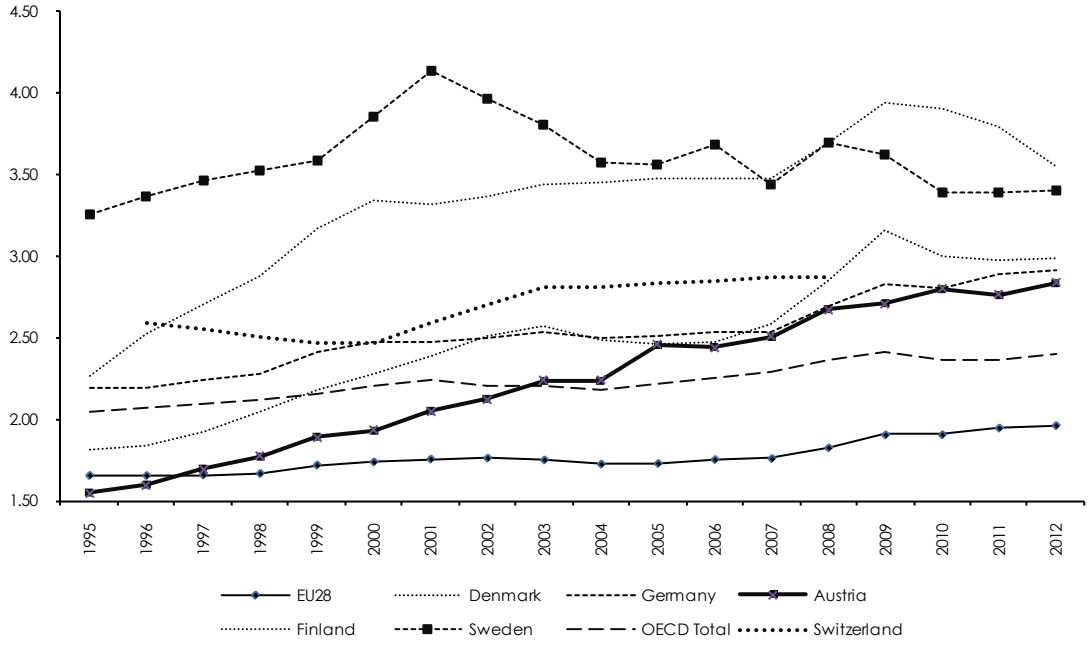
2.1 Key target R&D

2.1.1 Target path R&D: 3.76% of GDP

- Past trends

Austria's share of R&D in GDP has risen substantially over the past 10-15 years, faster than any other EU Member State in terms of percentage points. In the year 2000, it stood at about 1.9%, approximately the same as the EU-27 average. The latest data shows a share of about 2.8%, well above the European average (Figure 1). Austria is now, in terms of its R&D ratio, among the so-called European innovation leaders of Finland, Sweden, Denmark and Germany. This development comes as a result of pronounced efforts to increase public promotion of R&D expenditure by firms, and probably also as a result of Austria's joining the European Union, where firms had to improve their competitiveness facing both sophisticated firms from Germany and Italy, but also increasing competition from firms in the new EU member states to the east of Austria, which have a labour cost advantage.

Figure 1: R&D ratios in comparison, 1995-2012



Source: Eurostat, OECD, WIFO.

- Target path 2020

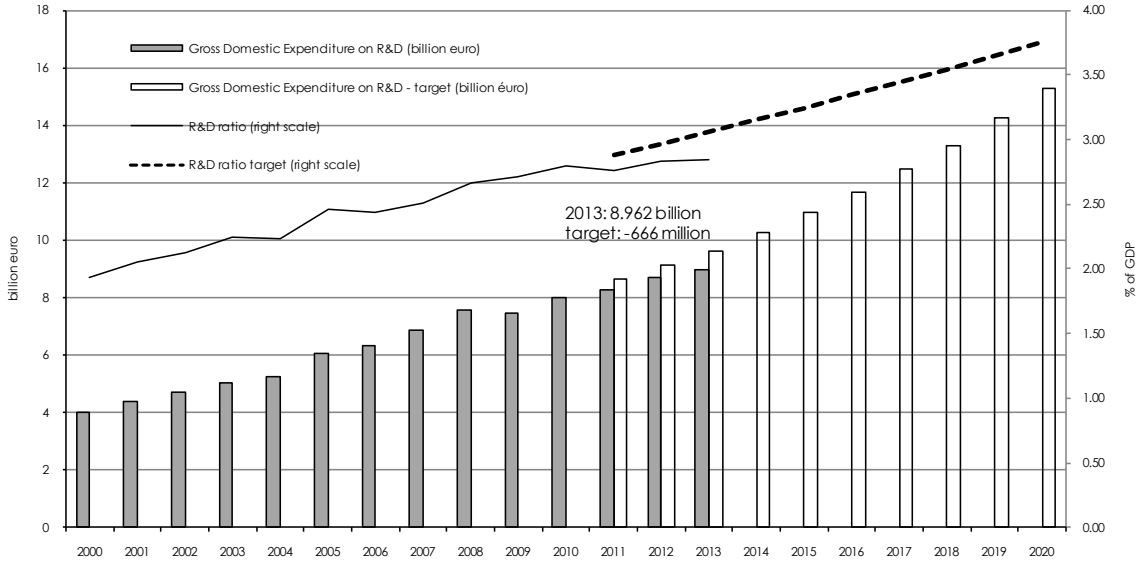
Austria intends to repeat its impressive R&D growth performance in the current decade to reach the Europe 2020 target, judging from its target of 3.76% which is another percentage point higher than the current level. How do R&D expenditures have to increase to reach this target? Figure 2 and Table 2 show the target path for gross domestic expenditure on R&D. The target path is based on i) the actual R&D ratio in the year 2010, the target value in the year 2020 and the cumulative annual growth rate between those two values. It needs to be mentioned that the R&D ratios from 2012 to 2013 are flagged as actual, whereas they are based on estimation by Statistik Austria. However, previous experience shows that the difference between this and the final figure is not large. The corridor is also based on ii) short- and medium-term GDP projections by WIFO up to 2018 (Scheiblecker, 2013; Baumgartner, 2013); for the years 2018-2020 a nominal GDP growth of 4% per year is assumed according to empirical studies of Austria's real trend growth rate of close to 2% and according to the ECB's inflation target of below, but close to 2% (Gaggl - Janger, 2009). The impact of deviations from this assumption on R&D expenditures is usually limited (see last year's report).

Based on these data, Austrian R&D expenditures would have to almost double from € 7.9 bn in 2010 to €15.3 bn in 2020. The growth rate of expenditure in 2010-2020 would be almost as high (6.7%) as during 2000-2010 (7.1%). As is obvious from Figure 2 and Table 2: R&D expenditures and expenditure targets, 2000-2020, Austria is currently not on track to meet this target,

as the actual R&D ratio is 0.21 percentage points below the target value for 2013; R&D expenditure is approx. € 0.6bn behind the target.

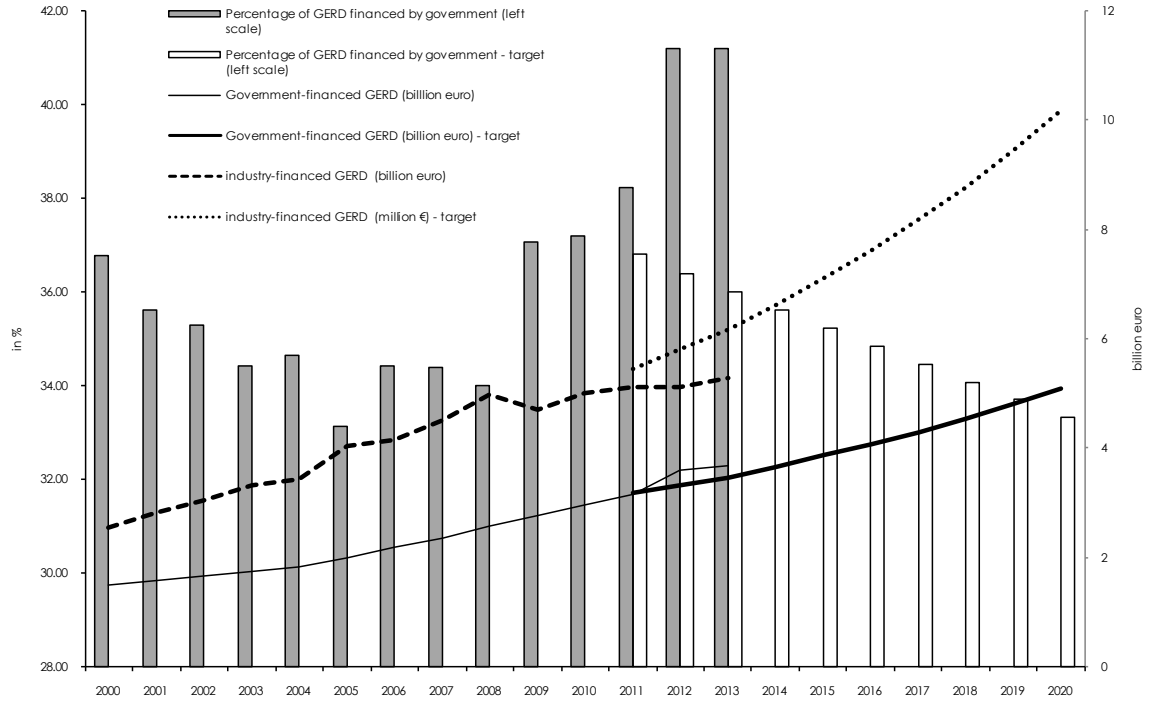
In addition to the target for the R&D ratio which mirrors the European-wide target, the Austrian government has set itself a target for the distribution of R&D expenditure between the public (30-33%) and the private sector (67-70%), inspired by a similar European target during the Lisbon Agenda. Table 2 and Figure 3 show that the reason for R&D expenditure being below target is the private sector. The public sector is actually slightly above target. Public expenditure share is at 41.1% compared with a target value of 36%. As is also obvious from Figure 2, the increase in the R&D ratio has significantly slowed down recently. Provided that R&D ratios for 2012 and 2013 are not substantially revised, bringing R&D expenditure back to the target track will be challenging, as public expenditure is already above target and public financing of business R&D is quite high in Austria (see last year's report). In fact, the national targets for the share of public R&D expenditure would imply the much slower growth of public expenditure over the period 2010 to 2020 (5.5%, or 4.7% for the remaining period 2013-2020, rather than 7.3% in 2000-2010), whereas business expenditure growth would have to accelerate significantly (from 7% in 2000-2010 to 9.9% for the remainder of the Europe 2020 timeframe, 2013-2020).

Figure 2: Target path for R&D expenditures, 2010-2020



Source: Statistik Austria, WIFO. R&D ratios 2012-2013 are estimations by Statistik Austria, so may be subject to revisions.

Figure 3: Target path for R&D expenditures, public vs. private financing of R&D, 2010-2020



Source: Statistik Austria, WIFO. R&D ratios 2012-2013 are estimations by Statistik Austria, so may be due to revisions.

- Past vs. required growth dynamics

Table 1 further documents the extent of the challenge. A "growth" differential between the past period 2000 to 2013 and the remaining period 2013-2020 is calculated to show how past dynamics compare with the dynamics required for reaching the targets ("probability of reaching target"). A negative number indicates that past trends are below the required growth and would point to the need for increasing efforts. Past dynamics are 0.06 percentage points behind the dynamics required; in the next column of table 1, current performance is shown as a comparison between last year's growth of the R&D ratio and required dynamics. This could be useful to pick up more positive recent trends; in this case, current performance is not better. Based on the growth performance of the latest available year and of the period 2000-2013, target forecasts of R&D as a % of GDP amount to 2.91% and 3.34%, respectively.

Table 1: Assessment of growth dynamics and target forecasts based on past trends, in percentage points

Indicator	actual v alue 2013(1)	target v alue 2020 (2)	past growth rate per year 2000-2013(3)	required growth rate per year 2013-2020 (4)	growth last year 2012 (5)	growth differential (3-4): probability of reaching target	growth differential (5-4): actual perform- ance	target forecast 2020 on the basis of (1) und (5)	target forecast 2020 on the basis of (1) und (3)
R&D ratio	2.85	3.76	0.07	0.13	0.01	-0.06	-0.12	2.91	3.34

Source: Statistik Austria, WIFO.

Table 2: R&D expenditures and expenditure targets, 2000-2020

	nominal GDP (million €)	Gross Domestic Expenditure on R&D - GERD (million €)		R&D ratio (of GDP)		Gov ernment-financed GERD (million €)		Percentage of GERD financed by gov ernment		Industry-financed GERD (million €)	
1998	191 910	3 400		1.77%		1 329		39.09%		2 071	
1999	199 270	3 762		1.89%		1 403		37.30%		2 358	
2000	208 470	4 029		1.93%		1 482		36.78%		2 547	
2001	214 200	4 393		2.05%		1 565		35.62%		2 828	
2002	220 530	4 684		2.12%		1 653		35.28%		3 032	
2003	225 000	5 042		2.24%		1 736		34.43%		3 306	
2004	234 710	5 250		2.24%		1 819		34.65%		3 430	
2005	245 240	6 030		2.46%		1 997		33.12%		4 033	
2006	259 030	6 319		2.44%		2 175		34.42%		4 143	
2007	274 020	6 868		2.51%		2 362		34.39%		4 506	
2008	282 740	7 548		2.67%		2 568		34.02%		4 981	
2009	276 150	7 480		2.71%		2 773		37.07%		4 707	
2010	286 400	7 980		2.80%		2 969		37.20%		5 011	
		target	actual	target	actual	target	actual	target	actual	target	actual
2011	299 240	8 625	8 276	2.88%	2.77%	3 174	3 165	36.80%	38.24%	5 451	5 112
2012	307 004	9 114	8 708	2.97%	2.84%	3 317	3 588	36.40%	41.20%	5 797	5 120
2013	314 897	9 629	8 962	3.06%	2.85%	3 466	3 692	36.00%	41.19%	6 163	5 271
2014	326 548	10 284		3.15%		3 662		35.60%		6 623	
2015	338 304	10 974		3.24%		3 864		35.22%		7 109	
2016	349 806	11 687		3.34%		4 071		34.83%		7 616	
2017	362 749	12 483		3.44%		4 300		34.45%		8 182	
2018	375 445	13 307		3.54%		4 534		34.07%		8 773	
2019	390 463	14 254		3.65%		4 804		33.70%		9 450	
2020	406 082	15 269		3.76%		5 090		33.33%		10 179	
growth rate 2000-2010	3.2%	7.1%				7.2%				7.0%	
growth rate 2010-2020	3.6%	6.7%				5.5%				7.3%	
growth rate 2010-2013	3.4%	3.9%				7.5%				1.7%	
growth rate 2013-2020	3.7%	7.9%				4.7%				9.9%	

Source: Statistik Austria, WIFO.

2.1.2 Policies for reaching the R&D target

Key policy options

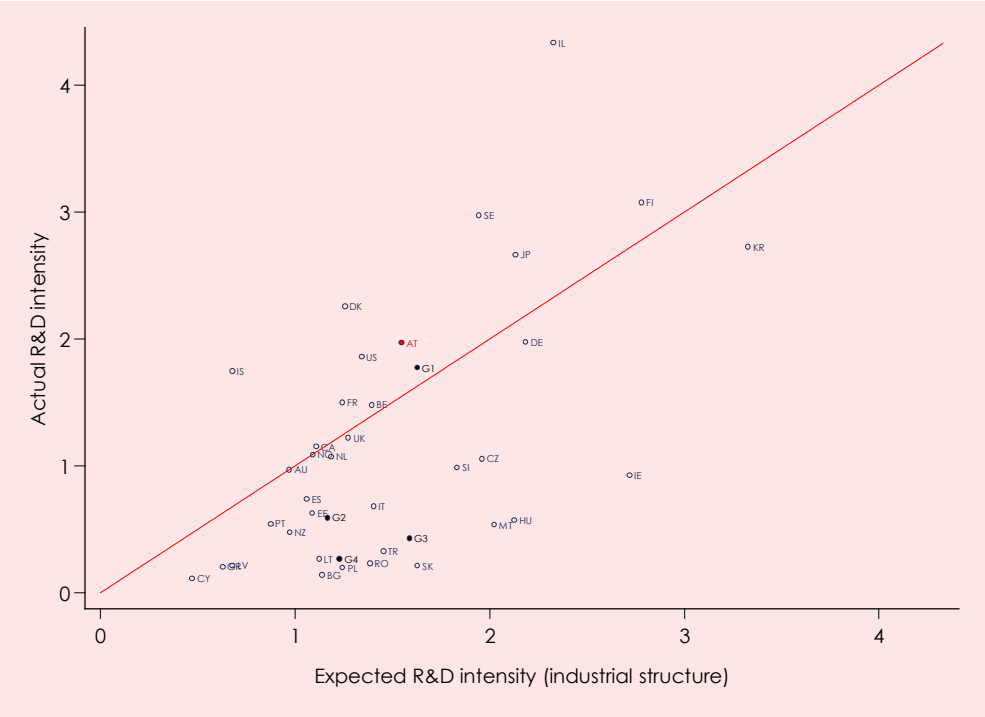
Taking a narrow view of the R&D target, efforts should be addressed at raising the R&D ratio and at achieving a split between public and private sector R&D expenditure of around one third – to two thirds. Taking a broader view, the target area contains policies aiming at increasing the innovation performance of firms and the research performance of the science base to foster smart and sustainable growth. We will first discuss the narrow interpretation.

There are basically two main ways to increase R&D intensity. One is to foster structural change towards industries or sectors that are on average more R&D intensive than the industries in which a country is currently specialised. Fostering structural change means simply increasing the share of the industries in total value added or total employment, so that these sectors get a higher economic weight. The second way is to raise R&D intensity in the existing sectors, i.e. there is not much change of shares between industries, but within industries R&D expenditures go up ("sectoral upgrading" as opposed to structural change). In practice, both effects are going to be present. However, so far, the specific Austrian growth performance in R&D intensity has been dominated by sectoral upgrading, raising R&D intensity in the sectors in which Austria is specialised.

Business R&D expenditures (BERD) are heavily influenced by the industrial structure of each country. Industries feature different average R&D intensities required for competitiveness. In pharmaceutics or computers, R&D intensity of production is very high. In metals or wood production, typical R&D intensity is much lower. Countries specialized in industries featuring low typical R&D intensities such as Austria can be "competitive" with much lower R&D intensities than countries specialized in industries characterized by high R&D intensities, ceteris paribus. Reinstaller - Unterlass (2012) develop a method to compare business sector R&D intensities controlling for varying industry specialization. Figure 4 shows this for a number of OECD countries. The horizontal axis shows expected business sector R&D intensity due to industrial structure – when each industry in a country would feature exactly average R&D intensity (calculated over several countries of the OECD). It can be seen that countries like Denmark or Austria are specialized in industries which are typically not R&D intensive, as they are quite far to the left, whereas countries such as Hungary, Ireland or Korea are far to the right. The vertical axis shows actual R&D intensity of the business sector. The distance to the 45-degree-line is the country-specific R&D intensity. A country above the 45-degree line achieves higher than expected R&D intensity, given its industrial structure. A country below this line achieves lower than expected R&D intensity. It can be seen that Austria is clearly quite R&D intensive given its industrial structure. Indeed, the main story of increasing R&D intensity in the Austrian business sector has been "sectoral upgrading", rising R&D intensity within given sectors. Although there are countries even more R&D intensive given their structure (e.g. Denmark, Sweden), existing firms in Austria may not need to raise R&D intensity much further to maintain their competi-

tiveness. A boost to R&D intensity may then come mainly from structural change towards more R&D intensive industries.

Figure 4: R&D intensity in the business sector, controlling for industrial structure, 2009



Source: WIFO. Group 1: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Netherlands, Sweden, United Kingdom. - Group 2: Cyprus, Greece, Italy, Luxembourg, Portugal, Spain.- Group 3: Czech Republic, Hungary, Malta, Poland, Slovakia, Slovenia. - Group 4: Bulgaria, Estonia, Latvia, Lithuania, Romania.

Contrary to the Commission's assessment of the NRP (European Commission, 2013), this upgrade or this increase in R&D intensity did have palpable economic effects (see last year's report). The commission judges economic effects of R&D expenditure on the basis of the indicators in the Innovation Union Scoreboard. This is a comprehensive set, but indicators on sectoral upgrading are lacking in the assessment of economic effects of innovative activity; the Commission strongly relies on indicators of structural change only (share of knowledge-intensive sectors, share of knowledge-intensive services exports etc.). For more details on the outcome monitoring of innovative activity see Janger, 2012; Janger et al., 2011; Reinstaller - Sieber, 2012.

While so far economic performance related to innovative activity has been good, demonstrated by the high quality of exports and good export performance, purely in terms of R&D intensity, Austria will need to more strongly foster structural change towards R&D intensive industries when targets are taken at face value due to its specialisation in medium-tech industries (for an up to date, detailed assessment of Austria's industrial structure, see Bock-Schappelwein - Janger - Reinstaller, 2012). Taking a broader view of policies to foster smart,

sustainable and inclusive growth, structural change should at the minimum not be artificially slowed down by e.g. policy or institutional deficits in supplying important ingredients for structural change, such as venture capital, higher education graduates, or a strong science base. At the same time, fostering structural change should not come at the expense of well-working sectors of the economy.

More precisely, policies for structural change should aim at start-ups in R&D intensive sectors and at the above average growth of existing, R&D intensive firms. It is obvious that these policies are not pure R&D policies but contain elements of industrial policy (as in firm growth, firm creation dynamics, luring R&D intensive firms to Austria etc.) and education policy (as R&D intensive firms need necessary human resources). Policies for sectoral upgrading should aim at increasing the intensity of R&D in existing firms and at getting traditional firms to innovate/to undertake research activities and are thus more narrow R&D and innovation policies. But of course when the R&D intensity is increasing, so should the share of highly qualified workers which undertake the R&D activity.

Examples for intensity raising policies are the classic direct public R&D promotion schemes (monetary support for research projects), innovation vouchers to motivate firms to engage in innovation activity, fiscal support of contract research and own R&D, cooperation between science and business... Examples for structural change policies are e.g. improving venture capital availability, improving conditions for firm creation, for spin-offs from universities etc. Education policies usually target both, but education policies targeted at structural change would lean more towards tertiary graduates, while incremental innovation in existing sectors in Austria often also needs upper secondary vocational graduates for innovation activities in the production process. In practice, there will of course be an overlap between these policies and their effects.

Next to the overall target for the R&D ratio, there is also the national target for the share of public and private sector R&D financing. Here, there are no easy solutions. The main imperative for the public sector is to maximise the leverage of its promotion policies; as the target would, if taken at face value, limit the volume of public financing of R&D. As public financing of business sector R&D expenditure is already quite high, this should not be increased to the detriment of higher education research. On the contrary, fostering the performance of the science base may be an effective way to boost structural change, i.e. a higher share of R&D intensive sectors which would also finance more R&D and take the weight off the public sector's shoulders in the medium-term. Of course such policies take time to bear fruit but the positive effects are then likely to be felt beyond 2020. Also the use of non-R&D subsidy based tools such as e.g. using public procurement to stimulate innovative activity in the private sector may be one way to maximise leverage of public R&D policies.

Finally, when we think about the policies aimed at R&D less from a narrow target perspective and more from a broad growth perspective, we can ask what is the bottleneck or the most binding constraint for a further improvement of innovative performance of firms and of the research performance of the science base. Here, the evaluation of the Austrian innovation

system (Aiginger - Falk - Reinstaller, 2009) pinpoints human resources for innovation, higher education and academic research as crucial inputs into the innovation process of firms which can be improved relative to Austria's level of development at the top of European countries.

Measures in the NRP – correspondence with key policy options and bottlenecks

How does the NRP live up to these challenges, does it address the main issues of the discussion above? The NRP refers mainly to the federal innovation strategy 2020[10] which focuses on five areas (education system, non-business research, business research, governance, financing R&D), outlining e.g. the most important measures addressing the most important bottlenecks.

In terms of the assessment of which measures are lacking, the plethora of measures announced in the strategy calls for a focus on implementation. Although the R&D target is among the ones furthest behind, in terms of measures the innovation strategy is certainly among the most comprehensive with consistent sets of announced measures to reach the Europe 2020 targets. It features a balanced analysis of the most important challenges or bottlenecks for a further improvement of innovation performance, such as human resources, basic research, venture capital, governance of the innovation system and structural change towards more R&D intensive sectors.

Points which could be addressed more strongly are non-tertiary human resources for innovation, such as graduates from technical upper secondary vocational schools. But even in the apprenticeship system there is considerable potential to train young people in occupational areas which ensure that innovative activity leads to productive activity, which ultimately leads to the value added justifying the innovative investment. So far, especially among women there is a choice of a few traditional occupations with little innovation potential (e.g. hairdresser, office assistant and salesperson). People from the upper secondary vocational schools ("HTL") are also in sometimes unsatisfied demand.

Furthermore, so far there is little information on how the public share in R&D financing could be lowered without endangering innovation performance. New models for the allocation of public R&D subsidies might be considered, such as auctioneering models; and the direct public promotion of R&D projects may be streamlined, or focused, to account for the importance of the tax premium on R&D activity.

Overall, there are many goals relating to higher education in the strategy, such as improving higher education teaching through a formula based unit cost model, improving research through more competitive financing, new organisational structures and doctoral studies, but compared with business sector policies there is less implementation so far.

[10] See http://era.gv.at/object/document/462.

In summary, based on past trends and on the policies put in place or announced by the government, the R&D target for the public sector is currently on track, while the one for the private sector is not on track. However, in a broader view of going after smart and sustainable growth, the measures announced in the innovation strategy would lead to a considerable improvement of the Austrian innovation system in terms of performance, if fully implemented. Such a full implementation of measures may lead to reaching the R&D target somewhat after 2020; structural change is usually slow. The important issue to keep in mind is that R&D intensity is no performance goal in itself. If the Austrian economy's innovative capability and competitiveness continues to be as strong as it is currently, not reaching the R&D target by 2020 should not be a major problem.

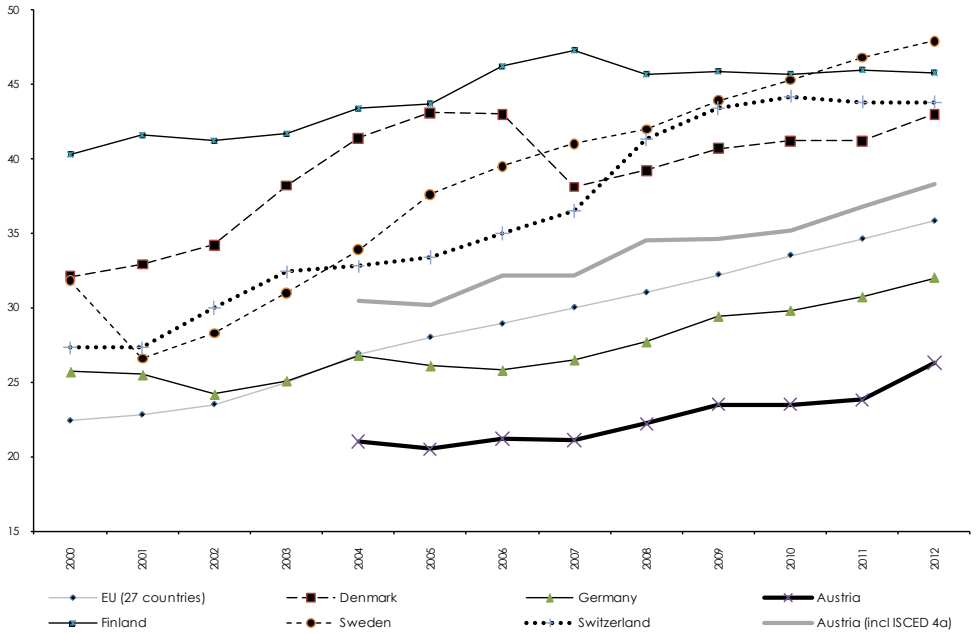
2.2 Key Target Education

2.2.1 Target path: 38% higher education graduates and early school leavers at 9.5%

- Past trends

Table 3, Figure 5 and Figure 6 show past trends for higher education and early school leavers. Fewer people obtain a tertiary education qualification in comparison with the EU/OECD average (ISCED 5, 6; Figure 5). When discussing higher education in Austria, one needs to point out Austria's vocational education system which leads to professional qualification early on and a relatively low share of higher education graduates. Nearly 60% of 25-64 year olds have an upper secondary qualification and over 90% with upper secondary education have a vocational education (ISCED 3, 4). In particular, the Austrian government has often argued that graduates from upper secondary vocational schools such as HTL, HAK etc. which take five years to complete and lead to A-levels at the age of 19, are equivalent to shorter tertiary studies in other countries. This is why the government (together with Germany) included this qualification level (ISCED 4a: 12% in 2011) in its national target.

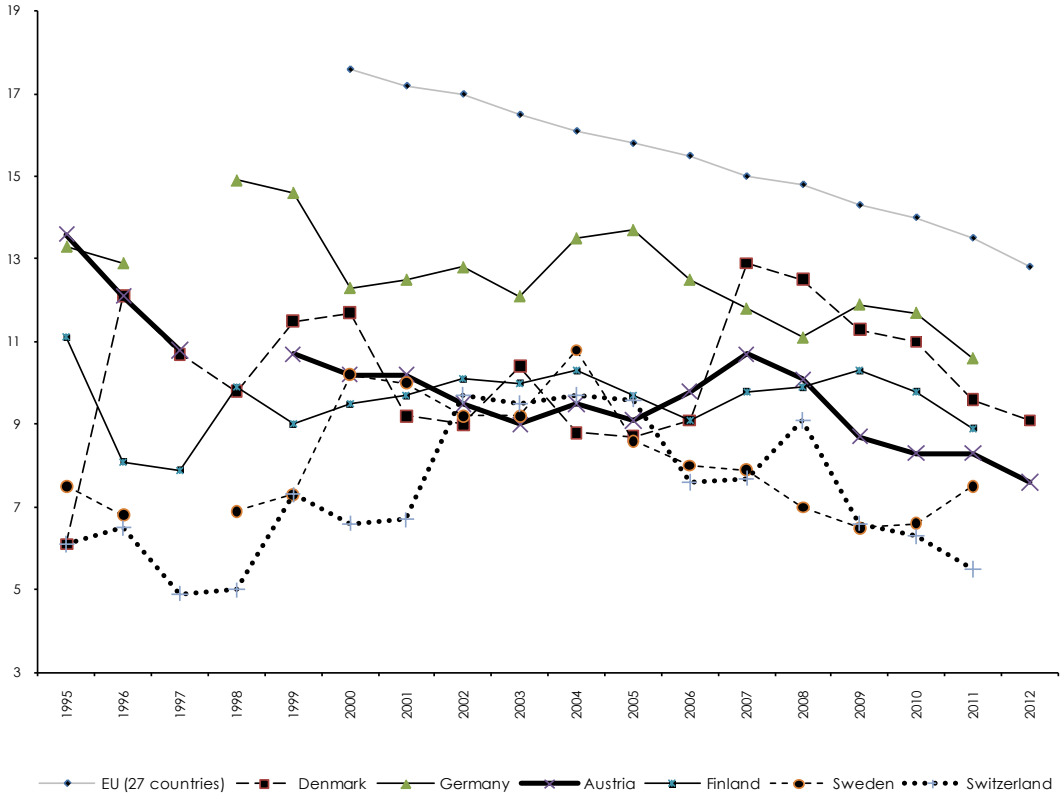
Figure 5: Population aged 30-34 with tertiary educational attainment level, 2000-2012



Source: EUROSTAT.

As regards early school leavers, between 2000 and 2008, early school leaving (ESL) fluctuated at around 10% in Austria, but decreased to 7.6% in 2012, well below the EU average (2012: 12.7 %; Figure 6). Nevertheless, socio-economic background has a strong influence on achievement in the Austrian education system, and pupils from a disadvantaged background face a much higher risk of dropping out "early" than their peers from more privileged backgrounds.

Figure 6: Early leavers from education and training aged 18-24, 1995-2012



Source: EUROSTAT.

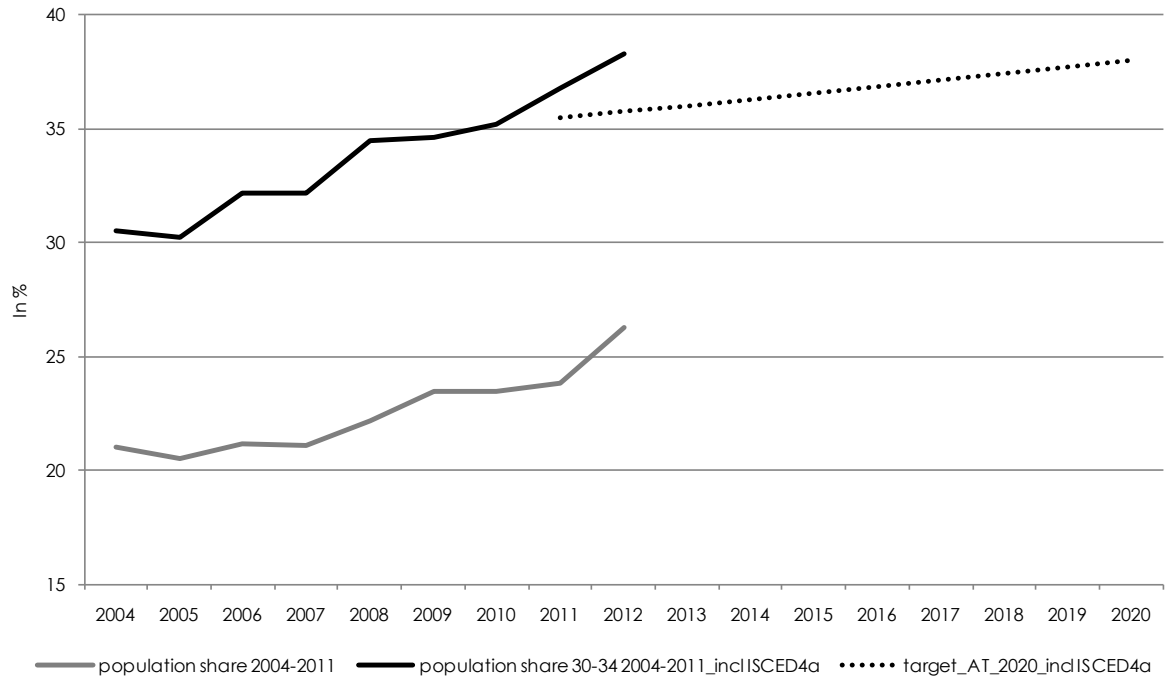
- Target path 2020

Education is one of the five targets of the Europe 2020 Strategy, its aim being to prevent skills bottlenecks in knowledge-intensive economic sectors. The Europe 2020 Strategy set two headline targets for education, one for the highly skilled and one for early school leavers. In the area of higher education, at least 40% of 30-34 year olds should have a tertiary degree or an equivalent qualification in the EU by 2020 to keep up with technological progress and global competition. Another obstacle to economic growth is early school leaving which hampers not only productivity and competitiveness but also leads to fewer job opportunities, higher unemployment risk, poverty and social exclusion. As regards early school leaving, school drop-out rates should be reduced to below 10% by 2020. Translated into national targets Austria has committed itself to increase the share of 30-34 year olds with a tertiary degree or an equivalent qualification to 38% by 2020. The second headline target is to bring down the rate of early school leavers to 9.5% by 2020.

Higher education target

Between 2005 and 2010 the share of the highly skilled population aged 30-34 grew on average by 0.7 percentage points per year. In 2012, the share of the population aged 30-34 having completed a tertiary education or equivalent was 38.3% in Austria (including ISCED 4a), i.e. 0.3 percentage points above the national target for 2020, and a 2.6 percentage points above the target value for the year 2012 which follows from a constant growth approximation to the target value in 2020. Table 3 and Figure 7 show the evolution of the share of the highly skilled population aged 30-34 between 2004 and 2012 with and without ISCED4a, together with the line (ISCED 5/6 plus ISCED 4a) projecting the necessary growth pattern that is needed to achieve the national target of 38% in 2020. It also becomes obvious that the increase in tertiary graduates comes from the ISCED 5 and 6 graduates, i.e. not the people doing 5-year upper secondary vocational schools. The increase is quite substantial.

Figure 7: Population aged 30-34 with tertiary educational attainment level (or equivalent qualification; including ISCED 4a)

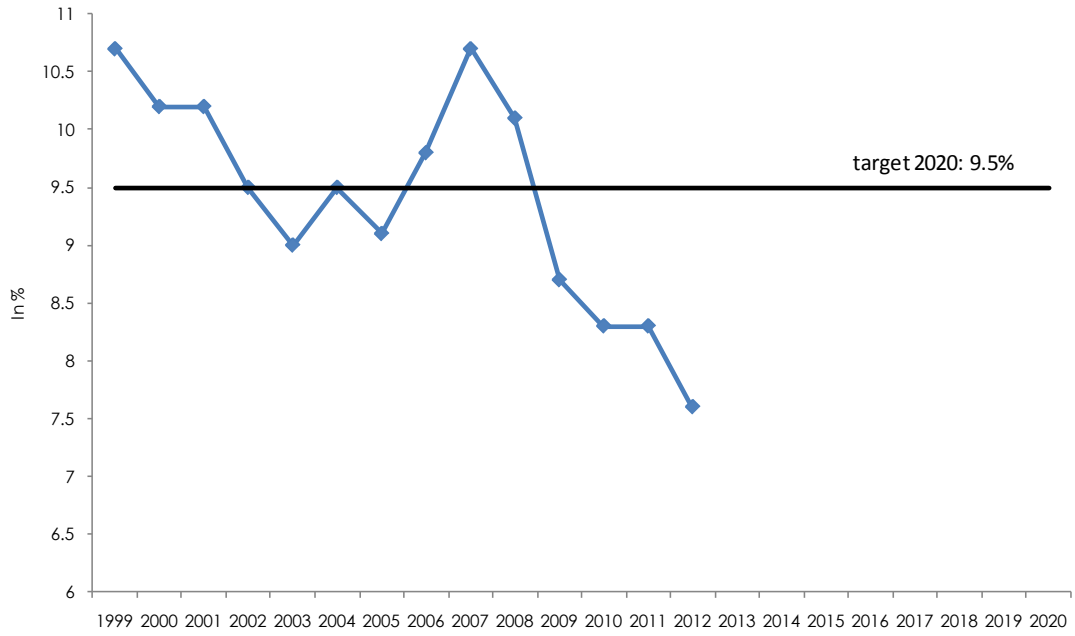


Source: EUROSTAT, WIFO-calculations.

Early school leaving[11]

Between 2000 and 2008, early school leaving (ESL) fluctuated at around 10% in Austria, but decreased to 7.6% in 2012, well below the EU average (2012: 12.7 %). The reasons for the fluctuations are not precisely known, it may be a statistical artefact as the data are based on the labour force survey which draws on a sample of the population (for details see Steiner, 2009). So Austria has actually already reached the core objective for the drop-out ratio (9.5 per cent). However, data on early school leaving according to migrant status still show very high gaps in Austria; this group is 3.5 times more likely to leave school early than Austrians. The next figure shows the changes in the share of early leavers from education and training aged 18-24 between 1999 and 2012.

Figure 8: Early leavers from education and training in the age cohort 18-24



Source: EUROSTAT, WIFO-calculations

- Past vs. required growth dynamics

We do not calculate required growth dynamics for higher education and early school leaving, as here the target is already reached. Table 3 and Table 4 show detailed numbers.

[11] Early leavers from education and training refers to persons aged 18 to 24 fulfilling the following two conditions: first, the highest level of education or training attained is ISCED 0, 1, 2 or 3c short, second, respondents declared not having received any education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding no answers to the questions "highest level of education or training attained" and "participation to education and training". Both the numerators and the denominators come from the EU Labour Force Survey.

Table 3: Share of population aged 30-34 with tertiary education (or equivalent qualification; including ISCED 4a) and qualification targets, 2004-2020

	Population aged 30-34	Population aged 30-34 with ISCED 4a, 5, 6		Share of population aged 30-34 with ISCED 4a, 5, 6 in %	
2004	598000	182500		30.5	
2005	582800	176200		30.2	
2006	566300	182200		32.2	
2007	549600	177200		32.2	
2008	537800	185500		34.5	
2009	530200	183600		34.6	
2010	526000	184900		35.2	
		target	actual	target	actual
2011	533600	189270	196100	35.5	36.8
2012	548000	195872	209600	35.7	38.3
2013	550847	198402		36.0	
2014	558014	202528		36.3	
2015	565181	206705		36.6	
2016	564041	207873		36.9	
2017	562900	209046		37.1	
2018	561760	210226		37.4	
2019	560619	211411		37.7	
2020	559479	212602		38.0	
	In %			In percentage points	
Growth rate 2005-2012	-1.1	0.9		2.0	
Growth rate 2010-2020	0.6	1.4		0.8	
Growth rate 2011-2012	2.7	3.5		0.8	
Growth rate 2012-2020	0.3	1.0		0.8	

Source: EUROSTAT, WIFO-calculations. Population projections based on Eurostat europop2010.

Table 4: Early leavers from education and training aged 18-24 and targets, 2000-2020

	Population aged 18-24 (January 1)	Early leavers from education and training aged 18-24		Share of early leavers from education and training in % of population 18-24	
1999	663873	71034		10.7	
2000	664649	67794		10.2	
2001	669382	68277		10.2	
2002	678165	64426		9.5	
2003	693482	62413		9	
2004	706175	67087		9.5	
2005	719227	65450		9.1	
2006	723465	70900		9.8	
2007	719740	77012		10.7	
2008	718785	72597		10.1	
2009	722040	62817		8.7	
2010	725354	60204		8.3	
		target	actual	target	actual
2011	729699		60565		8.3
2012	732897		55700		7.6
2013	739756				
2014					
2015					
2016					
2017					
2018					
2019					
2020				9,5	
	In %		In percentage points		
Growth rate 2000-2012	0.8	0.0		-0.2	
Growth rate 2010-2020					
Growth rate 2011-2012	0.4				
Growth rate 2012-2020					

Source: EUROSTAT, WIFO-calculations. Population projections based on Eurostat europop2010.

2.2.2 Improving educational outcomes

Key policy options

- Higher education

Due to very strong growth in the most recent year for which data is available (2012), Austria has already reached its target of 38% of tertiary education graduation in the population bracket of 30 to 34 year olds, including ISCED 4a graduates (5-year upper secondary voca-

tional schools). However, by comparison with leading European countries (see Figure 5), Austria is 5 to 10 percentage points behind, even accounting for ISCED 4a (the comparison countries figures' do not include ISCED 4a). Hence, having reached the target should not be reason for complacency.

To increase higher education graduation rates, two main pathways can be chosen: first, reduce the dropout rate of students taking up higher education; second, increasing the share of pupils gaining entrance right to higher education.

Entry rates into tertiary education are comparably low, not least because the Austrian school system streams pupils at an early stage into a vocational and an academic track. Many pupils enter the labour market after vocational education (ISCED 3). Nonetheless entry rates into tertiary education have doubled to 52%[12]) (2011, tertiary type A) since the 1990s in Austria, but they are still somewhat below the OECD-average (60%) (EU 21: 59%); almost 10 percentage points of the increase however come from international students studying in Austria (e.g. Germans), which often do not stay; a 2009 survey by the OECD sets the stay rate at only 17%.

Tertiary level dropout and survival rates are useful indicators of the internal efficiency of tertiary education systems. Reasons for leaving tertiary education programmes are varied: students can realize that they have chosen the wrong subject, they cannot fulfil the standards set by the educational institution or they get an attractive job opportunity before completing the educational programme. Unfortunately, timely international comparison of proper drop-out rates is difficult (a proper drop-out rate calculates the share of students who started university in a specific field but failed to finish any field; it may take a long time before it is clear that a student who started tertiary education has not finished it as he may return to university at a later stage). Hence survival rates specific to studies are more commonly used even if only an imperfect proxy. They measure for a specific study field how many students finished given to the total number who started at a given year. In Austria, the survival rate (Erfolgsquote) in 2009/10, the most recent year available, was at 77%, up 7 percentage points from 2006/7.

- Early school leaving

As with the share of tertiary graduates, Austria has already reached its target of early school leavers. Again, a comparison with leading international countries such as Switzerland shows that the best performing countries achieve an even lower share of early school leavers, by about 2 percentage points. Hence, there is still room for improvement. Socio-economic background has a strong influence on achievement in the Austrian education system, and pupils from a disadvantaged background face a much higher risk of dropping out than their Austrian peers. A particular challenge is to unlock the potential of the young with a migrant background, since achievement gaps compared to native peers are amongst the highest in the EU. Key policy options are improving the overall quality of the education system – from

[12] Sum of net entry rates for each year of age.

pre-primary education up to the lower secondary system, giving specific advice and coaching to vulnerable students and lower achieving students and making sure pupils get a second chance Examples of school-level factors that maintain lower achieving students are small class sizes, peers´ success and teacher quality (see e.g. OECD, 2011).

Measures in the NRP – correspondence with key policy options and bottlenecks

- Increasing the share of tertiary graduates

Austria's policies to increase the share of tertiary graduates are mainly described in relationship with the CSR on education, as regards further improving the strategic planning in the higher education sector and reducing the drop-outs. To reduce drop outs, increase quality and tertiary graduates and coordinate the Austrian higher education sector, a mix of measures is proposed: first, more funding, an additional billion euro for the higher education sector from 2013-2015, mostly going to universities but also expanding the universities of applied sciences. However, after 2015, there is currently no information on how budgets for higher education are going to be increased, as it is still being negotiated. In comparison with a group of European leading countries such as Finland, Sweden, Denmark and Switzerland, Austria's higher education spending per student is below average. A flat budget from 2015 would clearly threaten the progress achieved in the past years, with rising numbers of graduates and rising higher education spending; the goal of spending 2% of GDP on higher education from private and public sources would be unachievable by 2020 (see Hranyai - Janger - Strauss, 2013; Hranyai - Janger, 2013).

To reduce drop-outs, more information is provided to study beginners. Some of the programmes are unlikely to increase the share of the highly skilled population in the short run but they could be relevant for the medium or longer run (e.g. Studienchecker or Studienberatung NEU). The potential effects on the participation in higher education will probably only be seen beyond 2020. There is also a university introduction and orientation phase now. Note that this would not be necessary in a system where universities have the right to select applicants (as most international universities can do, and even Austrian universities in applied sciences). In principle, a system where universities can select applicants may come out of the planned and partly introduced different funding model for teaching ("capacity-based university funding based on enrolment"), which is supposed to link student numbers to teaching capacity by universities, as already practiced in the universities of applied sciences. Its overall impact on drop-outs and the share of tertiary graduates depends on its implementation, which is slow for the time being. If it does lead to lower student-teacher ratios while increasing overall numbers of graduates, it would be big step forward. Needless to say, lower student teacher ratios need more money, which is currently not planned beyond 2015 (see above). This new funding model is a main part of the "Hochschulplan", the higher education planning exercise, which is supposed to enhance coordination and differentiation of universities, contributing to more efficient spending and also higher teaching quality and international visibility of

universities, all of which should also have at least indirect impacts on drop-outs and the share of tertiary graduates.

It remains to be seen however how effective the higher education planning will become in practice. The recent addition of a medical university to the University of Linz was not part of the original version of the higher education plan (www.hochschulplan.at). Medical universities are expensive and it is not clear that increasing the supply of medical graduates rather than improving working conditions for young doctors is the right way forward to safeguard provision of health care services. More generally, the case of the medical university of Linz casts doubt on the practical relevance of the planning exercise for higher education policy and highlights again the difficult governance of policy areas in Austria due to the relations between the federal and the regional level (the Länder).

Moreover, while cooperation on big research infrastructures and new buildings, as planned, can certainly be efficiency-enhancing, it is not entirely clear that the differentiation of universities as regards their research portfolios can be strategically coordinated, due to the information asymmetries inherent between those who do the highly specialised research and those who aim at coordinating universities (see Clark, 1983; Janger, 2013 for a discussion). Aiming at complementary teaching offers and research portfolios by universities may also come at the expense of incentives arising from competition between universities, which in general leads to higher quality of teaching (hence should lead to fewer drop outs) and is particularly strong at the local level. In this regard, setting up the medical university of Linz may have unintended positive consequences.

In terms of broadening access to higher education, or increasing the entry rate into higher education, some measures have been taken. E.g., the Berufsmatura, i.e. an apprenticeship diploma plus a certificate of secondary education enabling access to tertiary education[13], is an essential measure to broaden access to higher education (for the middle (vocationally) qualified), i.e. to increase the entry rate, but its effect will strongly hinge on the quantitative dimension of the measure, i.e. how many apprentices will choose to take the exam or are able to pass the exams[14].

This in turn is influenced by the quality of the pre-university school system which is a crucial determinant of the entry rate into higher education. One measure relevant here is (high quality) full-day schooling. Recently there have been initiatives to upscale the expansion speed of full-day schooling. As stated, the quality of the pre-university school system is crucial; measures which typically feature in suggestions to improve the quality of schools are autonomy of schools in conjunction with nation-wide standards and evaluation or accountability (see e.g. OECD, 2010, Wößmann, 2003, 2006, 2008A/B), apart from a high-quality full-day schooling sys-

[13] In Austria, both apprenticeship programmes and formal schooling are statistically classified as upper secondary education. But only formal schooling diplomas convey the right to enter tertiary education.

[14] In November 2011, 9484 apprentices attended Berufsmatura-related courses.

tem. The Austrian government is currently setting initiatives in all of these areas, the implementation and success of which cannot be assessed fully yet.

Other measures are lacking. In particular, there are no measures aimed at under-represented groups (e.g. youth from low-income families, nor are there any programmes to overcome financial barriers to participating in higher education, or measures to bring more flexibility into how you can enter higher education, e.g. subsidy programmes for employees to access higher education independent of age; matching subsidy programmes with the duration of (higher, further) education programmes, for example via part-time "Bildungskarenz" – when there is only one year of subsidies available but the educational programme takes two years, uptake will be limited). Although there are reforms to the lower secondary school system and the new school type "Neue Mittelschule" is replacing the old "Hauptschule", officially there is no end to early tracking of students by ability into different educational streams at the age of 10. This will necessarily impact on the entry rate into higher education as at this age; pupils' abilities are not fully developed yet so that there may be loss of potential. If this is not addressed, other measures must be intensified, such as improving the permeability of the vocational system (see below, e.g. via Berufsmatura for apprentices).

However, it remains questionable whether this structural characteristic of the Austrian school system can be overcome by specific measures. Hence, when taking the target of increasing higher education at face value, early streaming has only partially been addressed.

All in all, there is clear progress; just taking the target at face value, efforts could stop here. But thinking more long-term and beyond Europe 2020, more efforts to improve higher education in Austria are clearly commendable (see also CSR on higher education).

- Early school leaving

The NRP lists several measures that aim at reducing early school-leaving rates (or reducing negative consequences of early school leaving), e.g.:

- New secondary school
- Further expansion of full-day schooling
- Educational standards
- Coaching of youth and apprentices against dropping out
- Improving reading and language competences, in particular support for children for pupils with a first language other than German
- Developing of an early school leaving strategy
- Fighting truancy

These measures address the challenge of preventing school drop-outs and improving the educational level (and quality) of the working age population. Most of the listed measures in the NRP can help to achieve better educational outcomes and strengthen basic knowledge. They are also consistent with the country specific recommendations to improve educational

outcomes, especially of the disadvantaged young (see section 3.4.2). All the above-mentioned measures are to be welcomed even though measures aimed at under-represented groups (e.g. youth from low-income families) are missing.

Over the next few years, the 'training guarantee' *(Ausbildungsgarantie)* for those up to the age of 18 and youth coaching should help to keep pupils in the mainstream educational system and thus keep the number of school drop outs – despite the fluctuations in the past –at below 9.5%. Also the planned shift from "compulsory schooling" to "compulsory education" within the current government programme should work to reduce the number of early school leavers and youth with compulsory education only.

It is now important to embed all relevant measures (i.e. not only those listed in the national reform programme) — from pre-school education to formal education and lifelong learning — into one comprehensive national qualification strategy, which would be one measure lacking among the key policy options. This strategy should not only aim to reduce the number of school drop-outs and enhance educational outcomes but also to broaden access to higher education and to facilitate access to lifelong learning. Such a comprehensive strategy is a prerequisite for a sustainable labour market and social integration for the whole working age population, in particular for the disadvantaged and older workers. Clear responsibilities and financing structures are unavoidable, as for example in the field of lifelong learning to promote access/participation irrespective of employment or unemployment.

In conclusion, the national reform programme includes a range of measures to improve educational outcomes, especially of the disadvantaged youth, and includes measures aimed at primary and lower secondary education as well as lifelong learning activities (see also the section on employment). Measures lacking or not fully addressed, are the impact of early streaming on entry rates into higher education. There are also no measures to broaden access to higher education for e.g. adult low income earners. Measures to reduce drop outs from higher education could be far reaching, depending on the implementation of the formula based unit cost model. Generally however, the impact of the measures on graduation rates in higher education is not immediately visible and first results are to be expected in the medium term at the earliest (around 2020 and beyond, as the target value is formulated with respect to the population age group of 30-34). This holds also true for advice and tutoring of new students. This should not be a reason however not to introduce reforms. It is furthermore essential to embed all the above mentioned measures aiming for better educational outcomes, regardless of whether at the pre-primary, primary, secondary or tertiary education or lifelong learning level in one common national strategy.

In summary, the Europe 2020 education targets are already met; regarding early school leavers however, due to the fluctuations in the past complacency is misguided, in particular as Austria shows vulnerable groups such as children with a migration background. The higher education target is also already met. In a broader view of going after smart and inclusive

growth, there is no harm involved in trying to go beyond the official target which would have important benefits for the Austrian economy.

2.3 Key target Employment

2.3.1 Target path: 77-78% of the population aged 20-64

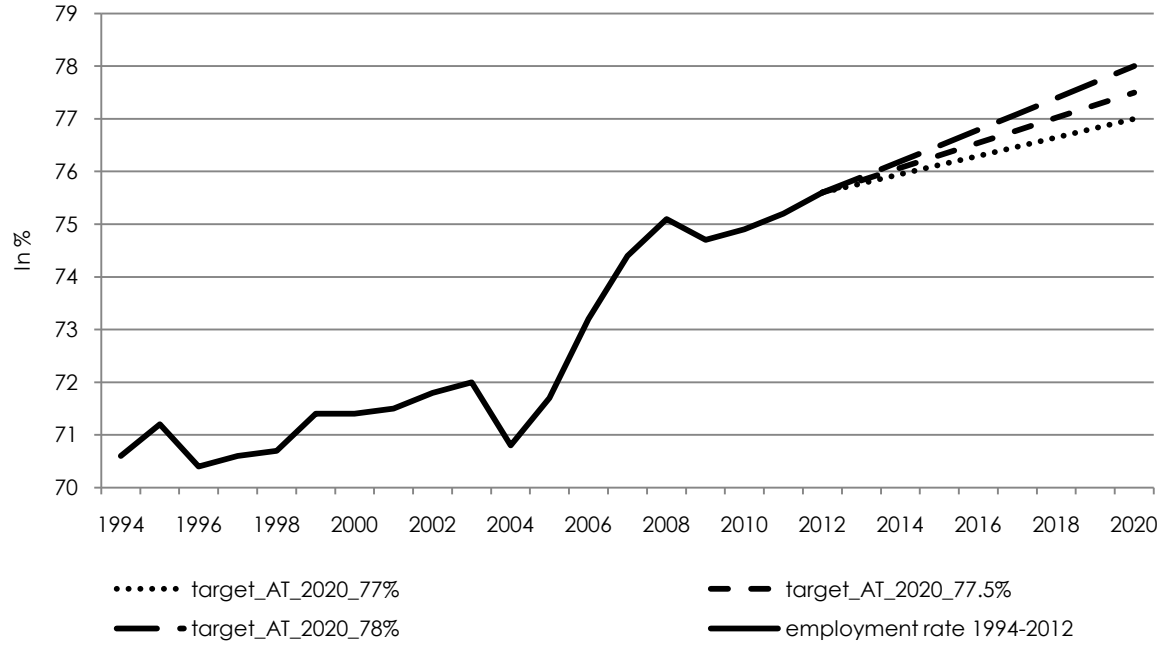
- Target path

The Europe 2020 strategy sets one target in the area of employment: the employment rate of those aged between 20 and 64 should rise to 75% within the European Union. Austria has set itself an even higher target of between 77 and 78% by 2020. In 2012 the employment rate of the population aged between 20 and 64 in Austria reached 75.6%, thus already exceeding the EU wide target employment rate (75%) but was still 1.4 to 2.4 percentage points below the national target rate (77-78%).

Figure 9 shows the evolution of the employment rate in Austria over the time period from 1994 to 2012 together with projection lines indicating the necessary growth patterns needed to achieve the Europe 2020 target (Table 6). During the period from 1994 to 2003[15]) the employment rate grew at an average rate of 0.22 percentage points and thus was only slightly below the minimum rate needed to reach 77% in 2020 (0.23 percent per year). As the figure illustrates, recent employment dynamics seem to be well on track, even after one year of declining employment rates in the aftermath of the recent financial crisis.

[15])Notice that there is a break in the time series around 2004 due to changes in the labour force survey structure.

Figure 9: Employment rate of population aged 20 to 64, 1994-2020



Source: EUROSTAT, WIFO-calculations.

- Past vs. required growth dynamics

Table 5 shows how the current employment rate relates to the target level for 2020 in more detail. Between 2000 and 2012 the employment rate of those aged 20 to 64 grew on average by 0.47 percentage points per year (column 3). In order to reach the lower limit of the 2020 target an average growth rate of 0.23 percentage points per year is required, while the more ambitious targets require yearly growth rates of 0.31 and 0.39 percentage points respectively (column 4).

Comparing these intended growth rates to last year's employment growth (0.4 percentage points) shows relatively high employment growth rates. Austria is therefore well on track in order to achieve the employment target set by the EU 2020 strategy. Table 1 shows that there remains a positive growth differential (difference between current and required average growth rate) of 0.17 percentage points (column 7) and even a larger one when considering the longer time trend (0.24 percentage points; column 6). The longer term trend in employment growth of 0.47 percentage points between 2000 and 2011 is also above the required growth rate for the upper limit of the target.

As column 7 shows, last year's growth in the employment rate would be sufficient in order to achieve even the upper bound employment target of 78% by 2020. Note however, that since employment growth (according to EUROSTAT definition) is expected to decline in 2013 - due to rather weak economic performance - at least the upper target rate might get out of reach in future years. The definition of employment rates used by EURO-STAT does not ac-

count for transnational commuters, who play a quite substantial role in Austria. When accounting for these commuters, employment rates are actually growing in 2013.

Table 5: Employment rate: Assessment of growth dynamics and target forecasts based on past trends, in percentage points

Indicator	actual value 2012 (1)	target value 2020 (2)	past growth rate per year 2000-2011(3)	required growth rate per year 2011-2020 (4)	growth last year 2011 (5)	growth differential (3-4): probability of reaching target	growth differential (5-4): current performance	target forecast 2020 on the basis of (1) and (5)	target forecast 2020 on the basis of (1) and (3)
Employ- ment rate (20-64)	75.60	77.00	0.47	0.23	0.40	0,24 (205%)	0,17 (174%)	78.8	79.4
	75.60	77.50	0.47	0.31	0.40	0,16 (151%)	0,09 (129%)	78.8	79.4
	75.60	78.00	0.47	0.39	0.40	0,08 (120%)	0,01 (102%)	78.8	79.4

Source: EUROSTAT, WIFO-calculations.

Table 6: Employment rate, 2011-2020

	Population aged 20-64	Total employment aged 20-64						Employment rate aged 20-64					
	In 1000							in %					
1999	4886,5	3463,2						71,4					
2000	4908,5	3470,1						71,4					
2001	4937,2	3490						71,5					
2002	4879,6	3461,9						71,8					
2003	4984,5	3553,2						72,0					
2004	4990,5	3473,5						70,8					
2005	5042,3	3613						71,7					
2006	5054,0	3698,9						73,2					
2007	5067,9	3768,3						74,4					
2008	5088,7	3821,5						75,1					
2009	5100,7	3811,3						74,7					
2010	5122,3	3834,8						74,9					
2011	5167,5	3884,9						75,2					
		target_77%		target_77.5%		target_78%		target_77%		target_77.5%		target_78%	
		target	act.	target	act.	target	act.	target	act.	target	act.	target	act.
2012	5194,7	3927,2	3926,7	3927,2	3926,7	3927,2	3926,7	75,6	75,6	75,6	75,6	75,6	75,6
2013	5206,9	3945,5		3948,7		3951,8		75,8		75,8		75,9	
2014	5219,1	3963,8		3970,2		3976,6		75,9		76,1		76,2	
2015	5231,4	3982,2		3991,9		4001,5		76,1		76,3		76,5	
2016	5239,3	3997,4		4010,4		4023,3		76,3		76,5		76,8	
2017	5247,2	4012,7		4028,9		4045,2		76,5		76,8		77,1	
2018	5255,2	4028,0		4047,6		4067,2		76,6		77,0		77,4	
2019	5263,1	4043,3		4066,3		4089,2		76,8		77,3		77,7	
2020	5271,1	4058,7		4085,1		4111,5		77,0		77,5		78,0	

	in %							in percentage points					
Growth rate 2000-2011	0,5	1,0		1,0		1,0		0,3		0,3		0,3	
Growth rate 2011-2020	0,3	0,6		0,6		0,7		0,2		0,3		0,3	
Growth rate 2012-2013	0,2	0,5		0,5		0,6		0,2		0,2		0,3	
Growth rate 2013-2020	0,2	0,4		0,5		0,6		0,2		0,2		0,3	

Source: EUROSTAT, WIFO-calculations.

2.3.2 Policies for increasing employment

Key policy options

Key policy options can be seen in increasing the employment rate of labour market segments which are clearly below the overall employment rate. In Austria this is the case especially for older people, where the scope of increasing the employment rates is limited on the one hand by health related issues but also by legal constraints (e.g. the lower retirement age for women). At the same time Austria shows a very strong decline in employment rates of elders with low educational attainment levels.

The Austrian pension system has been characterized by relatively high incentives for early retirement. However, the recent pension reform (becoming active from 2014 onwards) further increases pension deductions (from 4.2 to 5.1% per year) and retirement age for early retirement schemes and from 2014 onward there are new structures for health and job rehabilitation. The measures are supposed to increase participation rates among older workers and will decrease incentives (and possibilities) for early retirement considerably. But at the firm level there are still no incentives or compulsory measures to improve working conditions for older workers.

For women on the other hand, important constraints that hinder (full-time) employment participation are associated with unpaid care activities. Unequal distribution between men and women as well as the infrastructure of care facilities are of particular concern in this context. At the same time differences in statutory retirement age between men and women lead to lower labour market participation rates among older women compared to men. The Austrian tax system also works against fostering employment, especially for low-income earners, because of the high effective tax and the level of social security contributions between mini jobs and low-paid jobs at the margin of social security contributions (see section on the corresponding CSR).

The main challenge concerning youth employment are individual formal qualification, quality of the education and training system and smooth transition from school to the labour market. Reducing the number of low skilled youth, education drop-outs, NEETs as well as improving the quality of educational institutions is essential for fostering (sustainable) youth employment, especially for disadvantaged youths with migration backgrounds, and for decreasing their comparatively high unemployment rate.

Measures in the NRP – correspondence with key policy options and bottlenecks

The Austrian strategy to increase labour force participation can be split into four different packages of measures (see Annex), which clearly correspond to main pathways or bottlenecks to increase the employment rate:

1. Increasing the labour market participation of older persons
2. Increasing the labour market participation of women
3. Increasing the labour market participation of the young, persons with migration backgrounds and low skilled persons
4. The quality of work

- Increasing the labour market participation of older persons

The Austrian labour market is characterized by low employment rates of older persons compared to other European countries, especially for those with low educational attainment levels. While older workers usually enjoy more stable employment compared to young workers who have higher turnover and more fluctuations their employment prospects decline strongly compared to younger workers, once they get unemployed. Probability of re-employment is much lower – even more so during phases of economic downturns or stagnation. On the other hand older workers are increasingly remaining in the labour market longer due to reforms in the pension system. At the same time the educational structure changes over time, leading to smaller shares of low qualified within each age group which should improve also older workers' employment prospects[16]. These facts imply that the number of both, unemployed as well as employed older workers is likely to increase over the next few years.

The first policy package aiming at increasing the labour market participation of older workers focuses mainly on three aspects: the legal conditions framing the pathway into early retirement, health aspects of older employees and fostering their rehabilitation and thirdly prevention measures to reduce health related employment drop-outs at an early stage.

The National Reform Programme lists several measures for increasing older persons' labour market participation, e.g.:

- "fit2work"

[16] Also, higher formal education usually requires workers to postpone labour market entry. Therefore higher educated workers need to remain in the labour market longer, in order to fulfill minimum insurance-time requirements.

- "Health road"
- Rehabilitation rather than pension principle
- Implementation of new invalidity pension system ("IP NEW")

Most of the measures listed in the National Reform Programme that aim at the labour market participation of older people are unlikely to increase labour market participation in the short run but will be relevant in the medium and longer run. One shortcoming within this particular package of measures is that despite the policy shift towards "rehabilitation rather than invalidity" for persons below the age of 50 there are no structural changes aiming at invalidity pensions for those aged 50 plus, who are actually the vast majority of invalidity pensioners. Also the gender difference in statutory retirement ages is not addressed. However, recent reforms in the pension system concerning early retirement rules came into force with the beginning of 2014. These changes should have an impact on effective retirement ages (e.g. by increasing minimum age requirements of the Hacklerregelung by two years; see CSR 2, section 3.1) and – to some extent, in the case of employment – also on employment rates at older ages.

The current government programme considers the role of active labour market policy for increasing labour market integration of older persons e.g. by extending the funding for unemployed older persons to reintegrate into the labour market by active labour market measures. As recent reforms as well as intended measures will lead to an increase in the number of (older) persons with (multiple) employability obstacles within the labour force it is crucial to permanently evaluate and adapt active labour market instruments, in order ensure their effectiveness (e.g. for "Eingliederungsbeihilfe" the effectiveness for older workers has been evaluated in a recent study[17]). It is therefore very appreciable that the government programme explicitly addresses this issue.

Also the employers' role in older workers' employment prospects is considered explicitly by planning the introduction of a bonus-malus system for firms. However, this system (planned to start from 2017 onwards) will come at the expense of the dissolution payment (Auflösungsabgabe) and may lead only to minor behavioural change if associates costs and benefits are too low. Overall employer-side incentives still remain scarce in this context.

- Increasing the labour market participation of women

Comparing female labour market participation in Austria with other EU countries shows that the female employment rates in Austria are relatively high compared to the EU average (70.3% compared to an EU average of 62.4%) but still lower than female employment in e.g. Germany (71.5%). Female employment does not, in general, react immediately to economic development as the share of female employment in export oriented sectors is low. The employment rate of male workers, on the other hand, reacts more strongly to downturns since export oriented sectors tend to feel the impact of economic shocks more strongly.

[17] Eppel, Mahringer, Weber, Zulehner, „Evaluierung der Eingliederungsbeihilfe", WIFO 2011.

The key policy options are addressed by several measures within this second policy package concerning female labour market participation. The focus lies mainly on addressing the infrastructure for care activities, aspects of the gender specific labour market segmentation as well as implementing direct measures to support female employment.

The National Reform Programme lists several measures that aim at fostering female labour market participation and lowering labour market segmentation/segregation, e.g.:

- "Women in technology" (Frauen in Handwerk und Technik)
- "Return to a working life with a future"
- National action plan for gender equality in the labour market
- Obligation for companies to draw staff income reports
- Further extension of child care facilities

In particular, measures regarding the availability of care (especially child care, also for younger school children and the possibility of full-day schooling) are highly relevant in order to foster female employment (and their weekly working hours) and can have direct effects on female employment even in the short run. However, the aim is (or should be) to increase female full-time employment (as stated in the country specific recommendations) which means that the actual quality of the care infrastructure is also of major importance (concerning daily/weekly and yearly opening times etc.).

Most measures aiming at the reduction of gender based labour market segmentation are unlikely to have a large direct impact on female labour market participation in the short run but, if correctly tackled, may help to address gender based earning differentials. However, many programmes listed in the NRP address only small areas of the labour market and are therefore quantitatively of limited importance when it comes to effectively reducing labour market segmentation. Further measures that aim at increasing male child care activities would also be useful in this context (such as the "Papamonat" that is mentioned in the current government programme).

- Increasing the labour market participation of the young, persons with migration backgrounds and low skilled persons

The young as well as persons with migration background and low skilled are more sensitive to economic developments than other groups. During economic downturns less new jobs become available which in turn makes it more difficult for the young to enter the labour market or to find new employment when unemployed.

The National Reform Programme lists several measures that aim at fostering (future) labour market participation of the young and reducing the share of low skilled youth, e.g.:

- Training guarantee for young people and supra-company apprenticeship training
- Youth coaching
- Apprentice coaching

Special measures are directed at persons with migration background, e.g.:

- Interpretation services, mother tongue basic information, ect.
- Basic qualifications, German language courses
- "Mentoring for Migrants"
- Specialized counselling offers for highly skilled migrants
- Project for recognition of foreign qualifications

The third policy package focuses on advice, education and qualification measures as well as the legal aspects of employment. Measures within the education system are incredibly important when it comes to increasing the labour market prospects of the young. The youth coaching programme intends to systematically catch those youths that are at risk of dropping out of school and automatically leads them to suitable advice and qualification programmes, in order to prevent a total drop out from the education system. One critical aspect of this programme is, that it only targets at youths from their ninth (and therefore last compulsory) schooling year onwards. For those youths which suffer from major disadvantages (e.g. reading disabilities, language skills) a successful (re)integration into the schooling system would require an earlier intervention.

Programmes that directly address persons with migration backgrounds are scarce within the NRP and appear not to have a great impact on employment rates. While some measures aim at attracting migrants with higher qualifications, the reduction of labour market discrimination of already resident persons with migration background is underrepresented (e.g. for second generation migrants). Simplifying the recognition of foreign qualifications is important for reducing labour market disadvantages but do not remove e.g. difference in education participation (inheritance of education; early school tracking). Tackling disadvantages with respect to e.g. language knowledge from early childhood on is one important step in this context, e.g. via the introduction of a second cost-free year of kindergarten, which is planned in the current government programme.

For the low-skilled there are some important measures included in the package (e.g. training guarantee) but these overlap only with those for the young.

- The quality of work

The fourth package of measures focuses on the quality of work. Measures in this area concern mainly the legal framework. The quality of work can also affect the willingness to work and therefore increase labour market participation.

The National Reform Programme aims at improving the quality of work via:

- Law to fight wage and social dumping
- Educational leave
- Skilled workers package

New measures that aim at increasing employment perspectives are introduced in the current NRP:

- Skilled worker training initiative
- Education Policy Package 2013: Part-time work for educational purposes and grants for the purpose of gaining skilled worker qualifications

These measures aim at increasing education participation for low and medium-skilled workers by e.g. allowing for temporary reductions in working time for educational purposes (Bildungsteilzeit). Such measures should increase the attractiveness to participate in education activities because they allow workers to keep their employment while being in education. Especially for low skilled older workers (e.g. grants and leaves of absence for educational purpose (Bildungskarenz) of grants for the purpose of gaining skilled worker qualifications (Fachkräftestipendium)) bared the risk of losing their employments due to temporary absenteeism.

In conclusion, the national reform programme addresses employment participation from different angles. Although many measures – especially those aiming at older workers- will not increase employment strongly in the short run, they are structurally important and will affect labour market participation in the longer run. In particular measures that improve the care infrastructure have the potential to increase female labour market participation not only in the long run. But here some measures that directly foster female full-time employment are missing, such as opening times of child care for older children. As regards to the young an important step has been taken with the introduction of the "training-guarantee".

In summary, based on past trends and on the policies put in place or announced by the government, the Europe 2020 employment targets are well on track to be met, even though some key policy options are currently not addressed in the NRP, such as the gender difference in the statutory retirement age between men and women.

2.4 Key target Poverty

2.4.1 Target path: Number of individuals living in or at risk of poverty -235.000

- Target path

Poverty and social exclusion occur in a variety of situations throughout the EU. 24.8% (2012) of the EU's population is considered to be at risk of poverty or social exclusion. This means that they are affected by at least one of the three indicators used to define the EU poverty and exclusion headline target. These indicators are the "at risk-of-poverty rate", the "severe material deprivation rate" and the "share of people living in households with very low work intensity". They reflect the many factors underlying poverty and social exclusion, as well as the diversity of challenges for Member States. Austria is well below the European average, at 18.5%

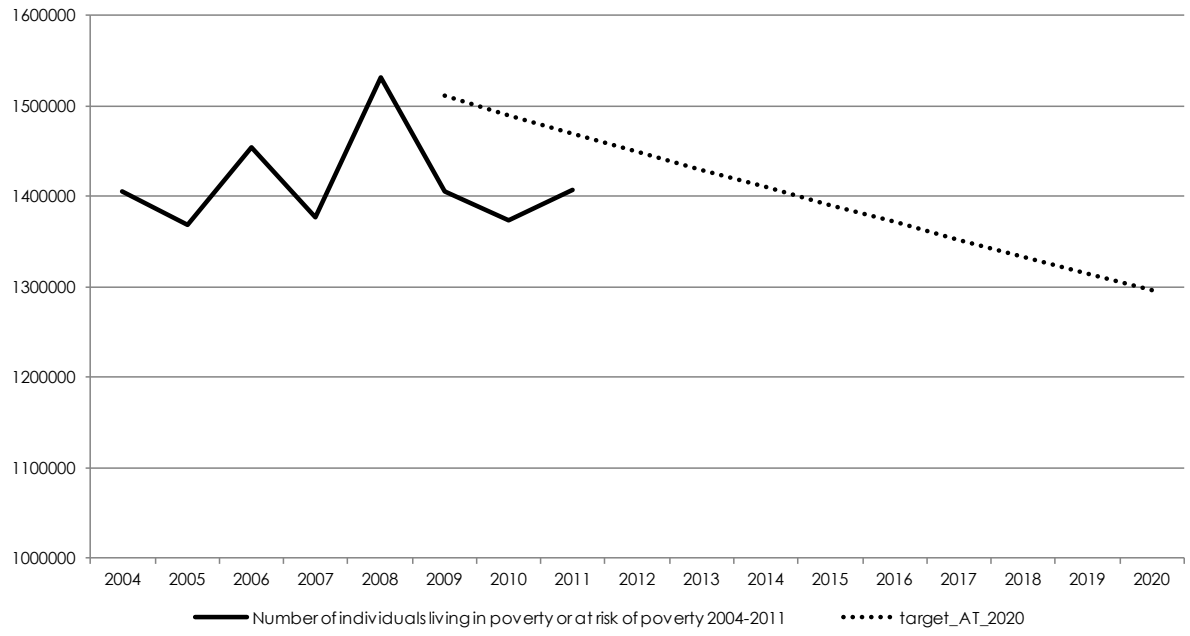
population at risk of poverty or social exclusion in the EU (2012), in line with countries such as Sweden or Finland.

The fifth headline target for the EU in 2020 is to measure the progress in meeting the Europe 2020 goals of reducing poverty and social exclusion. In 2020, at least 20 million fewer people should be in or at risk of poverty and social exclusion in all EU member countries. Austria has set itself the target to reduce the number of individuals living in poverty or at risk of poverty by at least 235,000 between 2008 and 2020.

Notice that there has been a change in the survey method used to analyze poverty issues. This causes a break in the time series in the year 2012. Therefore these values cannot be compared directly to previous years' values. Since data have not yet been revised the current version of this report cannot quantify the poverty target for 2012[18]. Revised data should become available in 2014 and the target path will be evaluated within the next update of this report. For the sake of completeness last year's results are quoted below.

In 2010, 1.373,000 (2011: 1,407 million) or 16.6% (2011: 16,9%) of the Austrian population were at risk of poverty or social exclusion. The target path in the following figure shows that Austria is well below the target value in 2011, mainly due to a significant drop in poverty in the year 2009 and a smaller drop in 2010 which was however compensated by a rise in 2011. Overall, up to 2011 Austria has reduced the number of people living in poverty by 125.000, a little bit more than half the target value for 2020 (Janger et al. 2013).

Figure 10: Population at risk of poverty or social exclusion in Austria, 2008-2020



[18] Statistics Austria has estimated all poverty indicators for Austria back to 2008. EUROSTAT itself does not report these re-estimated data. Revised data should become available within 2014.

Source: EUROSTAT, WIFO-calculations. Due to a break in the time series no value for 2012 is reported.

- Past vs. required growth dynamics[19]

To achieve the goal of 235,000 fewer individuals living in poverty or at risk of poverty in 2020, an average annual decrease of -1.4% is required (following table), in absolute terms approx. 19.000 people per year on average. Over the time period between 2004 and 2011, the number of people living in poverty or being at risk of poverty stayed practically stable, masking a rise up to 2008 and then a drop in 2008-2010. This longer term time trend per year would imply a yearly growth differential of almost 1.4 percentage points, i.e. the target would not be met; it would stay at roughly the reduction in poverty already achieved now. Additionally the number of individuals living in poverty or at risk of poverty has risen by 2.5% between 2010 and 2011 implying an actual growth differential of 4.4 percentage points, leading to a very unfavourable target forecast for 2020. However, these short time trends should not be taken at face value, they will become more important towards the end of time horizon in 2020. It remains to be seen whether poverty figures will follow more closely the very positive 2008-2011 trend with an average yearly reduction of more than 40.000 people, well above the required 19.000 people per year, or whether poverty figures will align with the longer term trend of 2004-2011, implying virtual stagnation. This will depend on overall economic trends but also on the measures put in place in the National Reform Programme (see below).

Table 7: Number of individuals living in poverty or at risk of poverty: Assessment of growth dynamics and target forecasts based on past trends

Indicator	actual value 2011(1)	target value 2020 (2)	past growth rate per year 2004-2011 (3)	required growth rate per year 2011-2020 (4)	growth last year 2011 (5)	growth differential (3-4): probability of reaching target	growth differential (5-4): current performance	target forecast on the basis of (1) und (5)	target forecast on the basis of (1) und (3)
Inidv iduals liv ing in pov erty or at risk of pov erty	1407000	1297000	0.02	-1.38	2.48	1.40	3.85	1713000	1409576
	-125000	-235000	286	-19170	34000	19456	53170	181000	-122429

Source: EUROSTAT, WIFO-calculations. Due to a break in the time series no actual value for 2012 is reported.

Table 8: Individuals in or at risk of poverty, 2008-2020

	Number of individuals living in poverty or at risk of poverty		Yearly change in absolute values		Yearly change in absolute values (cum. values)	
2004	1405000					
2005	1369000		-36000			
2006	1454000		+85000			
2007	1376000		-78000			
2008	1532000		156000			

[19] Growth dynamics presented here are based on the time period 2004 to 2011. The results are taken from last year's report (Janger et al. 2013).

	target	actual	target	actual	target	actual
2009	1510888	1406000	-21112	-126000	-21112	-126000
2010	1490066	1373000	-20821	-33000	-41934	-159000
2011	1469532	1407000	-20534	+34000	-62468	-125000
2012	1449281		-20251		-82719	
2013	1429308		-19972		-102692	
2014	1409611		-19697		-122389	
2015	1390186		-19426		-141814	
2016	1371028		-19158		-160972	
2017	1352134		-18894		-179866	
2018	1333500		-18634		-198500	
2019	1315124		-18377		-216876	
2020	1297000		-18124		-235000	
	In %	Absolut				
Growth rate 2004-2011	0.2	286				
Growth rate 2008-2011	-2.7	-125667				
Growth rate 2011-2012						
Growth rate 2012-2020	-1.4	-19170				

Source: EUROSTAT, WIFO-calculations. Due to a break in the time series no actual value for 2012 is reported.

2.4.2 Policies to reduce poverty

Key policy options

An integrated approach to fight poverty should always combine measures to foster the overall economic situation and growth with specific measures addressed at vulnerable target groups. Bottlenecks or key options for reducing poverty risks may be regrouped into such of prevention or avoidance on the one hand, and corrective action on the other.

a) Poverty prevention

- A comprehensive and high-quality network of professional care facilities, in particular for children below 3 years of age (see above labour force participation)
- The reform of the tax and social security contribution system (reduction of non-wage labour cost, especially for low wages)
- The promotion of social mobility via the education system (to avoid "inheritance" of poverty)
- Combating long-term unemployment
- Foster health prevention

b) Fight against poverty

- The introduction of a means-tested basic income is one, albeit not perfect, way to fight poverty, inter alia via national minimum standards, closer integration of groups outside the labour market, the abolition of discriminatory elements for recipients of social assistance, such as earmarked health insurance vouchers or recourse claims.
- Unemployment, sickness and disability increase the risk of poverty. The same is true for the low qualified or persons in low-wage employment or households with only low labour market attachment. Fighting poverty is therefore highly interacted with the employment and education goals.
- Labour force participation is of crucial importance for avoiding the risk of poverty. People who are not, or for too short time or only marginally, in gainful employment, be it that they are ill, handicapped, poorly qualified or obliged to take care of others, are often without sufficient means and to a much higher degree threatened by poverty.

Measures in the NRP – correspondence with key policy options and bottlenecks

The Austrian strategy to fight against poverty and social exclusion can be summarized in five sub-goals to achieve this core goal of 235,000 fewer individuals living in poverty or being at risk of poverty in 2020:

1. Combating long-term unemployment by improving the participation in the labour market of working-age groups at risk of poverty and exclusion
2. Introducing measures preventing health risks at the workplace and increased labour market integration of individuals with impaired health and individuals with a disability
3. Reduction of women-specific disadvantages in income and employment issues
4. Introducing measures to combat child and youth poverty, and inherited poverty
5. Reconciliation of family and working life

- Combating long-term unemployment by improving the participation in the labour market of working-age groups at risk of poverty and exclusion

Since long-term unemployment considerably increases the risk of poverty, combating long-term unemployment is of major importance in order to reduce the number of persons at risk of poverty. This first policy package extends measures that address persons with a relatively low labour market attachment using wage subsidies and employment subsidies (for older workers) and by introducing a needs-based minimum benefits system in 2011.

The National Reform Programme list several measures for poverty reduction, e.g.:

- Improved employment possibilities for recipients of the means tested minimum income benefits system (BMS) through activating initiatives and integration into active labour market programmes of the PES
- Additional unemployment assistance and diverse active labour market instruments (job coaching, work assistance, etc.)

The current government programme aims at harmonizing the standard of the BMS and a stronger integration of BMS recipients with active labour market measures, which is generally positive.

- Measures preventing health risks at the workplace and increased labour market integration of individuals with impaired health and individuals with a disability

The second policy package focuses on programmes to prevent health risks at the workplace and to increase labour market integration of individuals with impaired health and individuals with a disability. These health related measures also focus mainly on people with higher labour market attachment (e.g. pro FITNESS for SME) even though work assistance is an important measure to increase labour market integration of the disabled.

The National Reform Programme list several measures, e.g.:

  - New long-term care fund (see chapter 3.3 on CSR "Health and Care")
  - National action plan on disability
  - Measures for health prevention and rehabilitation (fit2work, Healthroad, ect.)

- Reduction of women-specific disadvantages in income and employment issues

The high level of labour market segmentation in Austria engenders a higher risk of poverty for women as they are more often employed in low wage jobs, work part time and therefore build up lower pension entitlements. The unequal distribution of unpaid care work between women and men also leads to lower labour market attachment and longer career gaps which negatively affect future income prospects and once again increase poverty risks (see section on employment above). Reducing female income disadvantages is therefore essential to reducing the risk of poverty among women. This is closely linked to measures that increase male childcare participation, reduces unpaid female care work (by improving the quantity and quality of the care infrastructure) but also embodies addressing education and career choices.

The National Reform Programme list several measures, e.g.:

  - Enhance income transparency
  - Improvement of (child) care facilities

The third policy package lists measures to reduce women-specific disadvantages in income and employment issues (see above). In addition to the above-mentioned measures, it is also important to influence the choices of career paths and education for women as these are the key to better paid jobs. Such career and education advisory programmes are unlikely to reduce female disadvantages in the labour market in the short run but they are more relevant and indeed highly necessary in the medium or longer run (e.g. when they become role models for other (young) women). The measures listed above respond partly to the country

specific recommendations to reduce the high gender pay gap and enhance full-time employment opportunities for women, notably through the provision of additional care services for dependants.

- Combating poverty of children and the youth, and inherited poverty

The fourth package extends measures to combat the poverty of children and the young, and inherited poverty. All the programmes are aimed at preventing inherited poverty. There are too few measures especially targeting the young with multidimensional risks (e.g. drug abuse, debts, mental health problems, low skilled, NEET, early school leaver etc.). Early streaming of children can reduce social mobility. Nonetheless these measures are in line with the country specific recommendations to improve educational outcomes, especially of the disadvantaged youth.

The National Reform Programme list several measures, e.g.:

  - Expansion/improvement of child care facilities /obligatory free year of kindergarten
  - Youth coaching
  - Training guarantee for young people and supra-company apprenticeship training

Education is one fundamental aspect of fighting poverty of young persons (see below). The already implemented training guarantee is a big step forward in creating more equal opportunities for youths with different socio-economic backgrounds.

- Reconciliation of family and working life

Within the fifth package the compatibility of family and career is addressed by improving the care infrastructure. Here, as above, the quality of the infrastructure must also be considered and assured, as much as any improvement in terms of quantity (such as daily/yearly opening hours, distance between the home, the care facility and work, costs of care). A quantitative extension alone will not be sufficient to foster female employment and more female full-time employment. The listed measures correspond partly to the country specific recommendations to reduce the high gender pay gap and enhance full-time employment opportunities for women, notably through the provision of additional care services for dependants.

The National Reform Programme list several measures:

  - Improvement of (child) care facilities
  - Mandatory year at kindergarten free of charge

Improving childcare – especially the quality (e.g. daily opening hours) - is extremely important in improving the reconciliation of family and working life. This is a key factor in fostering female employment and therefore reducing poverty risks.

Some new measures aim at reducing the number of people at risk of poverty or social exclusion, e.g.:

- Changeover of disability pension system ("IP-NEW")
- Part-time work for educational purposes and grants for the purpose of gaining skilled worker qualifications

The changeover of the disability pension system aims at fostering reemployment/reintegration into the labour market for people with health conditions or disabilities. Employment is a key factor for an autonomous life and in reducing poverty risk. In how far this policy shift will effectively lead to longer working careers for concerned workers will also depend accompanying labour market measures (such as extending promoted employment). In order to effectively increase employment rates for concerned workers more firm sided incentives would be important.

The possibility to temporarily reduce work time for educational purpose may help especially the low and medium skilled to participate in education measures without the need to temporarily withdraw from their current employment. This makes education participation more attractive/more affordable for concerned workers.

In summary, based on past trends, policies put in place or announced by the government and current unemployment growth, it is difficult to assess whether Europe 2020 poverty targets will be reached. However, there is now a balanced approach in place which combines an overall economic growth strategy (Europe 2020) with specific measures to address vulnerable groups addressing many of the key policy options. Within those specific measures (some of them are also relevant in the fields of employment and education), some are lacking, such as a nation-wide extension of the step-to-job programme, youth with multidimensional risks, quality of childcare, labour taxation of low income earners, personal bankruptcy etc, i.e. by and large mostly specific measures for marginalised persons.

2.5 Key target Environment

2.5.1 Target path: The 20-20-20 Targets

Austria's National Reform Programme (Bundeskanzleramt, 2013) refers to three European goals regarding the subject of climate protection, energy and the environment:

a) Reducing greenhouse gas (GHG) emissions by 10% as compared with the 2005 levels in sectors not subject to the European Emissions Trading Scheme (EU ETS)
b) Generating 20 % of gross final energy consumption from renewable energy resources
c) Improving energy efficiency by 20%

The 20-20-20 targets represent an integrated European approach to climate and energy policy that aims at mitigating climate change, increase the EU's energy security and strengthen

its competitiveness. They are also headline targets of the Europe 2020 strategy for smart, sustainable and inclusive growth.

Targets a and b were defined by EU leaders in March 2007, when they committed Europe to becoming a low carbon and highly energy-efficient economy, and were enacted through the climate and energy package in 2009[20]. The climate and energy package does not address the energy efficiency target directly. This is specifically treated in the 2011 Energy Efficiency Plan and the Energy Efficiency Directive[21].

The European targets were subsequently translated into national targets for the Member States. Austria's targets were described by the Austrian government in the 2011 National Reform Programme. According to the effort sharing decision the European target of -10% GHG emissions for non-ETS sources implies an emission reduction of 16% until 2020 (relative to 2005).

Regarding renewable energy sources, Austria's 2020 target is a share of 34% in gross final energy consumption.

As for the energy efficiency target, the energy efficiency law to implement the Energy Efficiency Directive is still awaiting its adoption. Austria reported an indicative reduction target[22] to the EU Commission, according to which the final energy consumption in 2020 will amount to 1.100 PJ.

- Past trends – greenhouse gas emissions[23]

Between 1990 and 2011 Austria's GHG emissions grew by 5.9% in total[24] (Figure 14). In contrast, GHG emissions in the EU 27 were reduced by 18.3%. Germany, in fact, decreased its GHG emissions by 26.7% in the same period of time. In particular, the GHG emissions trajectory of Austria is characterized by three periods: stagnating to slightly growing GHG emissions between 1990 and 2000, noticeable emissions growth until 2005 when emissions reached a peak (+20% relative to 1990[25]) from where they continually declined until 2009. The year 2010 is marked by a rebound of GHG emissions related to the economic recovery after the financial downturn of 2008/09. In 2011 emissions again declined to some extent, totalling 80.2 million tons of CO_2 equivalents (see footnote 23).

While the development of GHG emissions following the financial crisis constitutes a uniform pattern throughout Europe, the emission growth in Austria between 2000 and 2005 is striking.

[20] Comprising Directive 2009/29/EC to improve and extend the greenhouse gas emission allowance trading scheme of the Community; Decision 406/2009/EC on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 ("Effort Sharing Decision") and Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

[21] On 4 December 2012 the Energy Efficiency Directive (Commission Directive 2012/27/EU) entered into force.

[22] See: http://ec.europa.eu/energy/efficiency/eed/doc/reporting/2013/at_2013report_de.pdf.

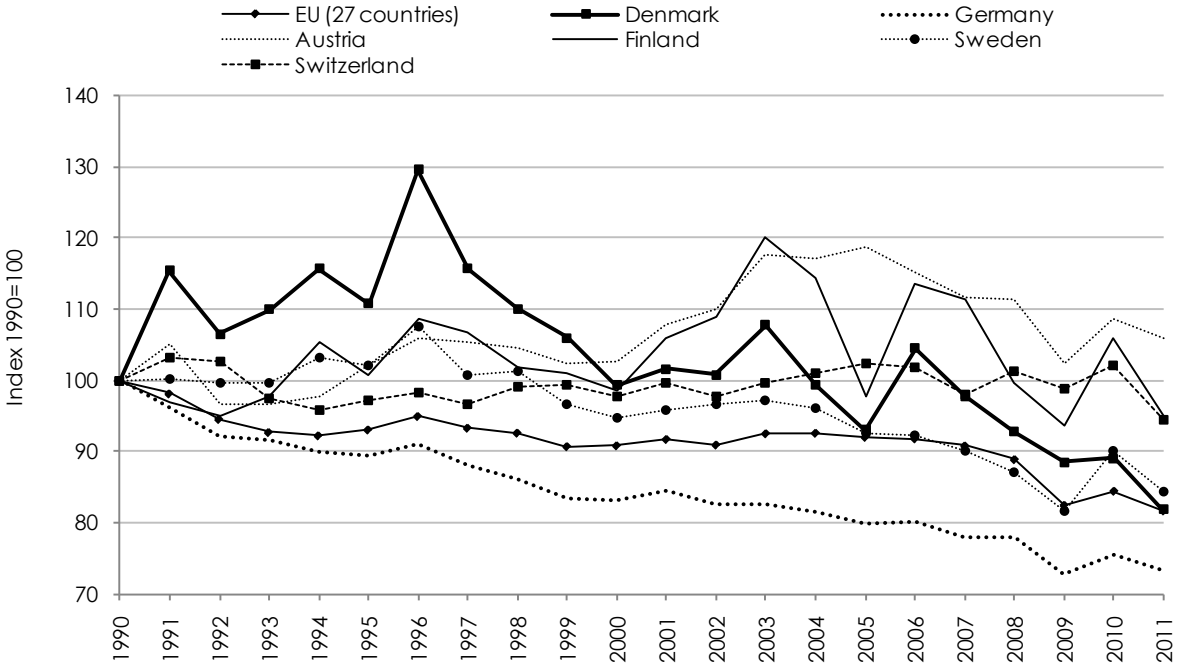
[23] For the comparison of EU countries data from Eurostat are used. These are currently available for 2011. For the detailed assessment of targets in the following paragraphs, Austrian data are used that are available for 2012.

[24] For 2012 the total growth relative to 1990 declined to 2.8% (UBA, 2014).

[25] Reaching 95.6 million tons of CO_2 equivalents.

In this period climate policy in Austria did not sufficiently tackle the challenge of climate change and emissions showed a development contrary to the general European trend. However, the last six years showed continuously declining emissions (except for 2010) which points at continued changes beyond the effects of the economic crisis, especially the increased use of renewable energy sources and energy efficiency measures (UBA, 2013) [26].

Figure 11: Greenhouse gas emissions, 1990-2011, 1990=100



Source: EUROSTAT database, WIFO.

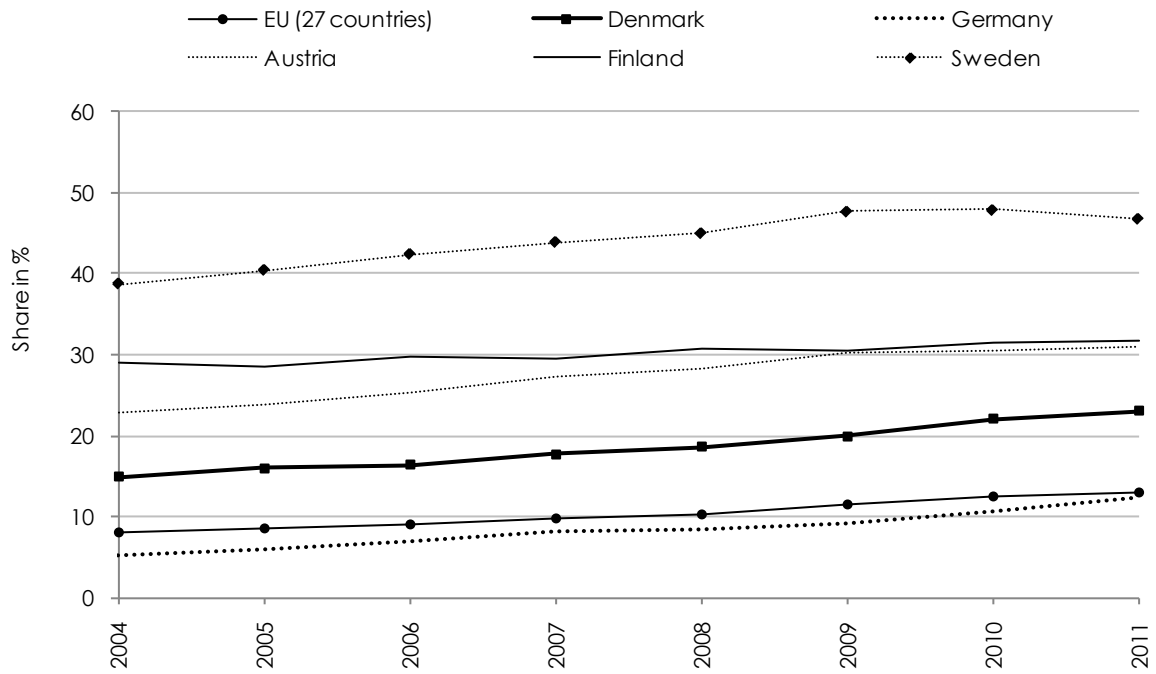
- Past trends – renewable energy[27]

Austria's share of renewable energy in gross final energy consumption rose from 22.7% in 2004 to 30.8% in 2011 (Figure 15). This share is above the European average (13% in 2011) and among the highest of all Member States (Finland 31.8%, Sweden 46.8%). Austria's growth dynamic in comparison is rather low with a rise of 35% between 2004 and 2011 compared to e.g. the EU 27 (60%), Denmark (55%) and Germany (136%). This is however due to the already rather high initial level. Other countries with high shares of renewables in gross final energy consumption like Finland and Sweden exhibit even lower growth rates.

[26] As Austria's National Reform Programme 2013 points out, the decline in emissions in 2011 was "*…partly attributable to a lower level of transport activity as well as the relatively warm weather in the winter months.*"

[27] For the comparison of EU countries data from Eurostat are used. For the detailed assessment of targets in the following paragraphs, Austrian data are used that are available for 2012. Due to methodological differences Eurostat data slightly diverge from Statistics Austria data.

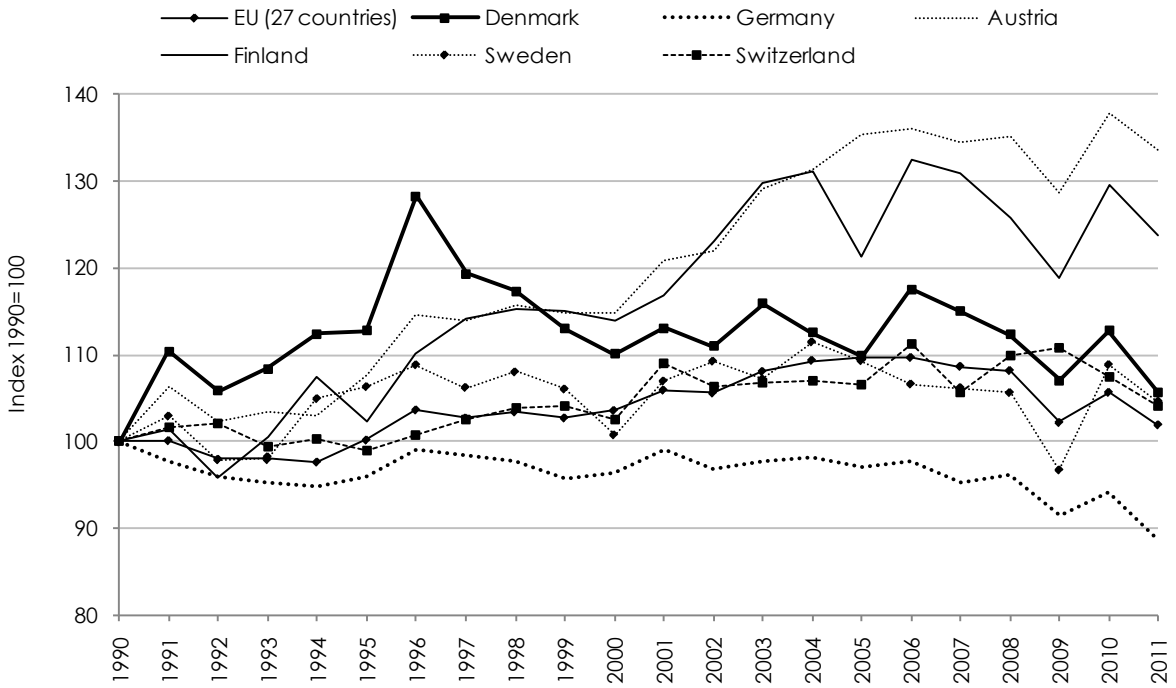
Figure 12: Share of renewable energy in gross final energy consumption, 2004-2011



Source: EUROSTAT, Europe 2020 Headline indicators; WIFO.

With an increase of 33.6% between 1990 and 2011 primary energy consumption in Austria grew faster than the EU 27 average (Figure 16). The increase in primary energy consumption amounted to 5.4% for the EU 27; Denmark and Sweden showed an increase of 5% over the period while Germany achieved a decrease in primary energy consumption of 11%.

Figure 13: Primary Energy Consumption, tonnes of oil equivalent (TOE), 1990-2011, 1990=100



Source: EUROSTAT, Europe 2020 Headline indicators; WIFO.

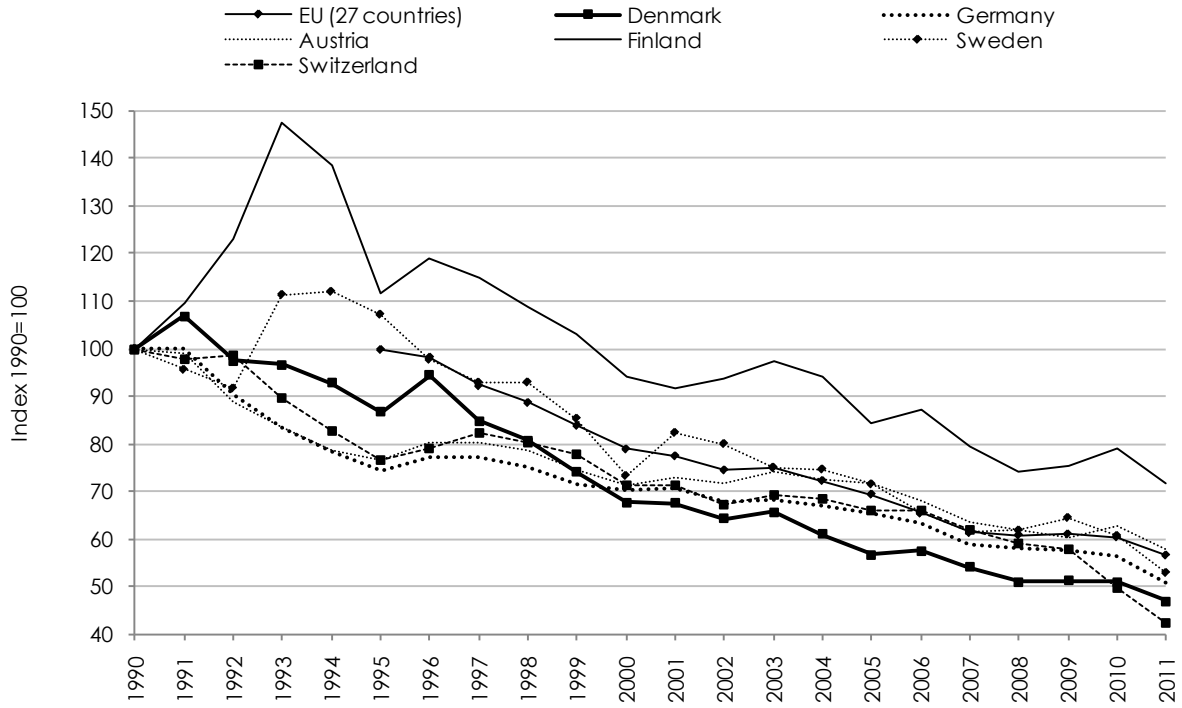
However, Austria's primary energy consumption per million € of GDP (figure 17) decreased by 42.1% showing an improvement in energy efficiency. In comparison with other countries Austria's improvements in energy efficiency are slightly below average (EU 27: -43.4% in the period 1995 – 2011). Denmark reduced its primary energy use per unit of GDP by 53% between 1990 and 2011, Germany by 49% and Sweden by 47%.

This comparison shows that while energy use relative to GDP in absolute terms in Austria is below the European average and also below other Member States like Sweden and level with Germany[28], Austria has achieved lower improvements in energy efficiency over time.

[28] In absolute terms primary energy consumption per unit of GDP declined from 159 tonnes of oil equivalent per million € GDP in 1990 to 136 TOE/million € in 2011.

The 2011 reference values are 158 TOE/million € for the EU 27, 144 TOE/million € for Sweden.

Figure 14: Primary Energy Consumption, tonnes of oil equivalent (TOE) per million € GDP, 1990-2011, 1990=100



Source: EUROSTAT, Europe 2020 Headline indicators; WIFO.

Target a: Reducing Greenhouse Gas Emissions

The EU ETS, covering emissions from energy supply and manufacturing, represents 50% of the EU's greenhouse gas emissions. The ETS is the key instrument of European climate policy. It is administered on a European level by the Emission Trading Directive and is not subject to the National Reform Programme.

Within the EU climate and energy package, the Effort Sharing Decision (Decision 406/2009/EC) establishes binding annual GHG emissions targets for member states for the period 2013-2020. The target relates to emissions from sectors not included in the EU Emissions Trading System (EU ETS) including transport (except aviation), buildings, agriculture, waste management, fluorinated gases and non-ETS energy and industry.

By 2020 GHG emissions from the non-ETS sectors in the EU 27, i.e. emissions under the Effort Sharing Decision, are to be reduced by 10% relative to 2005. Together with a 21% cut in GHG emissions covered by the EU ETS, this will accomplish the overall emission reduction goal of the climate and energy package of a 20% cut in GHG emissions below 1990 levels by 2020.

Emission targets within the Effort Sharing Decision have been allocated at the national level on the basis of Member States' relative wealth (measured by Gross Domestic Product per capita). National targets for 2020 are expressed as percentage changes from 2005 levels. For

Austria, GHG emissions are to be reduced by 16%. The national target was implemented via the Austrian Climate Protection Act (KSG; Federal Law Gazette No. 106/2011). The KSG[29] also defines the maximum permissible quantities of greenhouse gas emissions for each sector for the period 2013 - 2020 in accordance with the effort sharing decision.

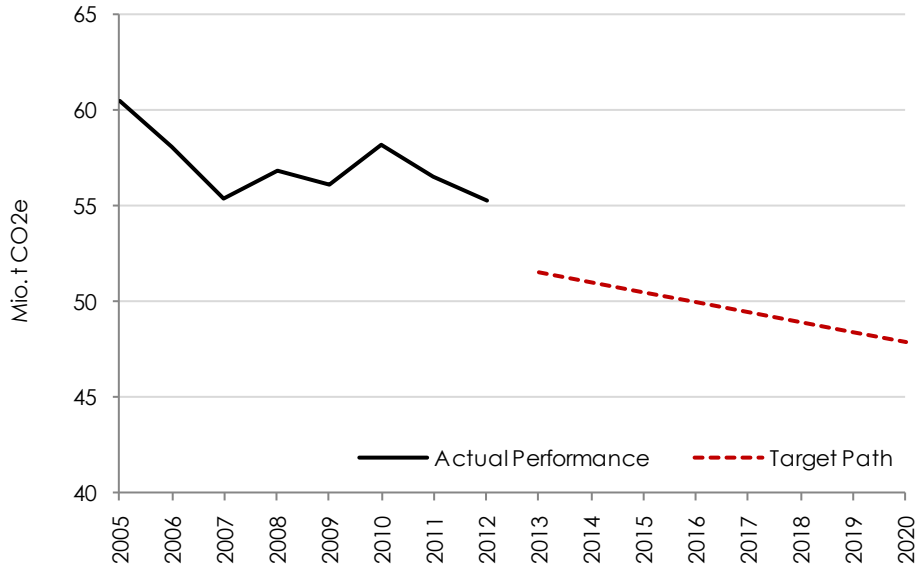
The sectoral emission limits are summarized in Table 9, the linear target path until 2020 is depicted in Figure 15.

Table 9: Greenhouse gas emissions limits per sector according to the KSG (Climate Protection Act)

	Greenhouse gas inventory (OLI system)	Maximum annual quantity under the KSG (draft version of 19 December 2012) (in millions of tons of CO_2 equivalents							
	2011	2013	2014	2015	2016	2017	2018	2019	2020
Energy and industry (non-ETS)	6,1	6,7	6,7	6,6	6,6	6,6	6,6	6,5	6,5
Transport	21,3	21,9	21,7	21,5	21,2	21,0	20,8	20,6	20,4
Buildings	9,7	10,0	9,8	9,6	9,4	9,2	9,0	8,8	8,7
Agriculture	8,6	8,7	8,6	8,6	8,6	8,6	8,5	8,5	8,5
Waste management	2,8	2,7	2,7	2,6	2,6	2,5	2,5	2,5	2,4
Fluorinated gases	1,7	1,6	1,6	1,6	1,5	1,5	1,5	1,5	1,5
Total (non-ETS)	50,3	51,6	51,0	50,5	50,0	49,5	48,9	48,4	47,9

Source: Umweltbundesamt.

Figure 15: GHG Emissions in Austria



Source: Umweltbundesamt, WIFO calculations, 2013 starting value of target path.

[29] As amended by Federal Law Gazette No. 94/2013.

The data available for 2011 (UBA, 2013) show emissions of 50.3 million tons CO_2 equivalent from the KSG sectors, which is below the 2013 target value (51.6 Mt CO_2e)[30].

The further decline in total emissions in Austria in 2012 (relative to 2011) suggests that also emissions from the KSG sectors might have shown a continued reduction, and thus would also be below the 2013 target value.

It has to be noted that the stringency or ambitiousness of the climate policy target has to be assessed taking into account the general economic framework conditions. In general the economic crisis contributed to putting the EU on track for reaching the 2020 emission target. GHG emissions are strongly correlated with economic performance, as could be seen in 2010. Prospects of an accelerated economic upturn thus call for continued efforts in climate and energy policy. Ambitious measures need to be enacted and enforced in order to decouple GHG emissions from economic growth in the medium to long term and ensure the compliance with medium to long term climate and energy targets[31].

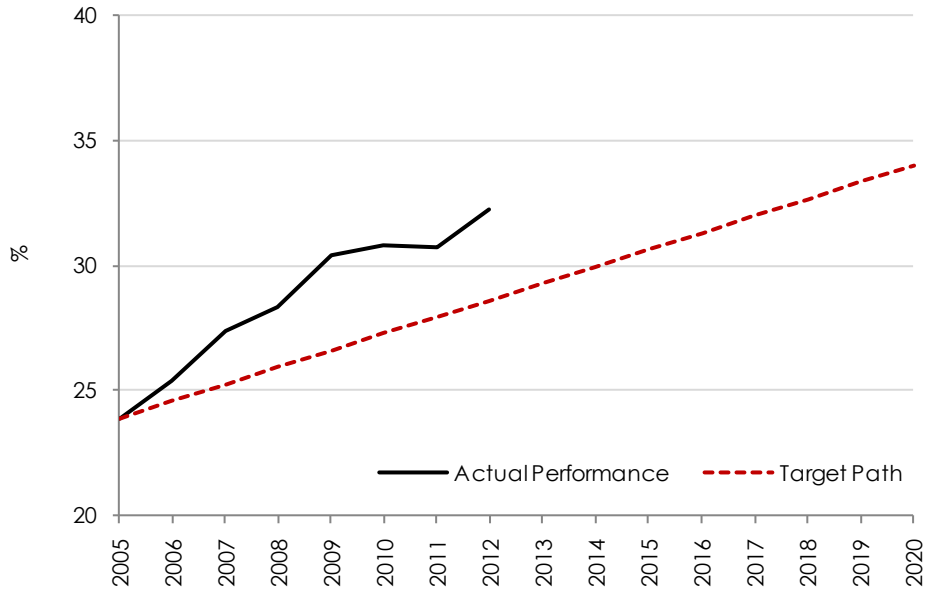
Target b: Enhancing the Renewable Energy Share

The Austrian target regarding the share of renewable energy sources in gross final energy consumption in 2020 is 34% (European Commission, 2009). In order to support the renewable energy objective, each member state is requested to submit a national renewable energy action plan (NREAP) detailing how they will reach their individual targets (Karner et al., 2010). Austria's NREAP indicates target paths for energy use and renewable energy deployment as a result of sector-specific policy measures (Figure 19).

[30] As GHG emissions data have a time lag of 2 years, the evaluation whether the actual emissions in 2013 matched the target value can only be carried out in 2015.

[31] This refers to the 2030 framework for climate and energy policies presented by the European Commission on 22 January 2014, including the target to reduce EU greenhouse gas emissions by 40% below the 1990 level, as a milestone on the track towards meeting the objective of cutting emissions by at least 80% by 2050. In addition, the share of renewable energy will have to be increased to at least 27% of the EU's energy consumption by 2030.

Figure 16: Austrian Renewable Energy Share, 2005-2020*



Source: Energy Balance 2011, Statistik Austria, own calculations, *renewable energy as share of gross final energy consumption

Figure 16 shows the actually achieved share of renewable energy until 2012 (solid line) compared with the target trajectory (dotted line[32]). The comparison shows that Austria's share of renewable energy currently exceeds the calculated target and it is expected that Austria will comply with the 2020 target.

But still, in order to achieve the set 2020 target, proactive policy measures that promote a constant additional supply of renewable energy on the one hand and instruments targeted at increasing energy efficiency on the other hand must be enhanced.

As the current data show, after stagnating between 2009 and 2011[33] the share of renewables has restarted to increase in 2012, reaching 32.2%. However, in the light of long-term decarbonisation plans of the EU the deployment of renewable energy sources need to be strengthened.

[32] As a linear interpolation between the target in 2020 and the 2005 reference data.

[33] Ranging between 30.4% and 30.8%. This was due to the economic uptake and the correlated rise in energy consumption after the economic slump of 2008/09. Primary energy demand in 2010 grew by 6.1% while renewable energy supply (including combustible waste) increased by only 3.2% (Kettner et al., 2012).

Target c: Improving the Energy Efficiency

The EU's Energy Efficiency Directive (European Commission, 2011) set the target of reducing energy consumption by 20% by the year 2020. This corresponds to 368 Mtoe (million tonnes of oil equivalent) less energy use in 2020 to be achieved by the EU as a whole relative to the baseline development.

Energy efficiency is one of the main aspects of the Europe 2020 flagship initiative for a resource-efficient Europe (European Commission, 2010). Increasing EU energy imports and rising energy prices pose a potential risk to Europe's energy security and economic growth. According to the European Commission, energy efficiency is the most cost-effective way to increase the security of supply and, at the same time, to reduce greenhouse gas emissions (cf. target a). Any reductions in energy consumption also contribute to meeting the target regarding the share of renewable energy sources set by the Renewable Energy Directive (European Commission, 2009; cf. target b). Finally, producing more with less energy input should on the one hand improve the competitiveness of industries and on the other hand allow a lead in the global markets for energy efficiency technologies. Making the economy more energy efficient will therefore generate positive impacts in terms of economic growth and job creation. For these reasons, the European Energy Strategy 2020 identified energy efficiency as one of the key priorities of EU energy policy for the coming years (European Commission, 2011).

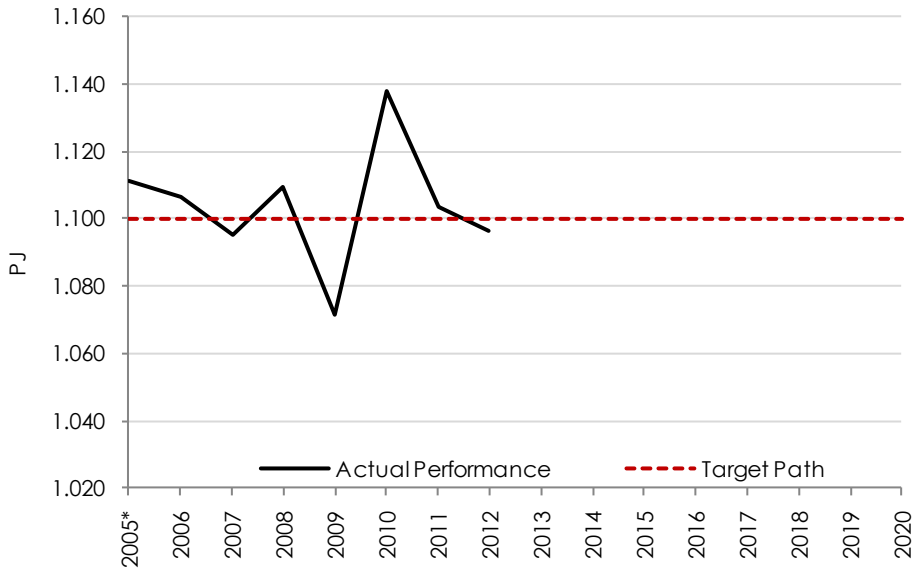
Given this political framework, member states have committed to achieving 2020 targets for energy efficiency in terms of primary energy savings in million tonnes of oil equivalent (Mtoe). Member States are obliged to set indicative national energy efficiency targets and subsequently achieve certain amounts of final energy savings over the obligation period (2014 – 2020). According to its Energy Strategy and the National Renewable Energy Action Plan 2010 Austria reported an indicative target of 1,100 PJ of final energy consumption in 2020 (26.3 Mtoe final energy consumption and 31.5 Mtoe primary energy consumption) which corresponds to stabilising final energy consumption at the level of 2005. (BMLFUW/BMWFJ, 2010). Austria's National Energy Efficiency Action Plan was published in April 2014 (BMWFW, 2014) and contains the indicative target of 1,100 PJ final energy demand in 2020.

Figure 17 compares Austria's actual performance in terms of final energy consumption with the target path until 2020. This comparison shows that the economic slump in 2008/09 was responsible for the 3.4% decline in final energy consumption in 2009. Final energy consumption rose again quickly with the recovery of the economy in 2010 and declining again somewhat in the following years. In 2011 and 2012 final energy demand stabilized at around 1,100 PJ. However, it has to be taken into account – as also noted in the previous paragraphs – that currently the weak economic growth and other positive influencing factors (warm winters etc.) contribute to this development.

The future progress in energy efficiency or in reducing energy consumption will depend on various determinants, above all future economic performance, the development of heating

degree days, i.e. whether strong winters will drive energy demand for heating or not, and last but not least on the implementation of measures to improve the energy efficiency of the economy. This relates to energy efficiency investments in the energy consuming capital stock of the economy such as in the building, transport and industry sectors. But policies must also address the behavioural side of energy consumption because energy efficiency improvements are often offset by rebound-effects, i.e. higher (energy service) demand manifests itself as a result of lower energy service prices from efficiency improvements.

Figure 17: Final Energy Consumption in Austria, 2005-2020



Source: Energy Balance 2011, Statistik Austria, own calculations.

- Past vs. Required growth dynamics

In recent years greenhouse gas emissions in Austria showed a continuous decline (apart from the year 2010 in which the economic recovery caused a pronounced rise in emissions) as depicted in Table 9, which includes a comparison of past growth in percentage points with the growth in percentage points required for reaching the target in 2020. On average the annual rate of change for greenhouse gas emissions was -1.3% (2005 – 2012; -2.1 in 2012). However, meeting the target for the non-ETS sectors in 2020 will require additional effort, especially if economic growth increases.

As outlined above, Austria is well on track for meeting the national 2020 target for renewable energy. This is also illustrated by Table 9. On average the annual rate of change of the share of renewable energies was 1.2 percentage points (2005 – 2012; 1.5% in 2012). Given the target value of a 34% share, an annual rate of change of 0.23 percentage points between 2013 and 2020 would suffice to meet the target. If the past rates of change (1.2 or 1.5 percentage

points) would be maintained, the share of renewables in gross final energy consumption would rise to 41.7% or 44.2% respectively.

Austria's final energy consumption declined by 0.2% on average between 2005 and 2012 (again with the exception of 2010). In 2012 the rate of change amounted to 0.7%. The indicative energy efficiency target for 2020 corresponds to a stabilisation of final energy consumption at 2005 levels. The effort required in coming years will depend on contributing factors like economic performance, climatic conditions as well as structural and behavioural changes.

Table 10: GHG emissions, share of renewable energies, energy efficiency: Assessment of growth dynamics and target forecasts based on past trends

Indicator	actual v alue 2012(1)	target v alue 2020 (2)	past growth rate per year 2005-2012 (3)	required growth rate per year 2012-2020 (4)	growth last year 2012 (5)	growth differential (3-4): probability of reaching target	growth differential (5-4): current performance	target forecast 2020 on the basis of (1) und (5)	target forecast 2020 on the basis of (1) und (3)
GHG Emissions	55,30	47,70	-1,28	-1,83	-2,12	0,56	0,29	40,17	49,90
Share of renewables	32,2	34,0	4,35	0,6822	4,89	3,67	4,20	47,16	45,27
Energy effiency	1.096,2	1.100,0	-0,2	0,0	-0,7	0,2	0,7	1.040,4	1.079,0

Source: WIFO.

Summary of results

Table 1110 summarizes the data on the actual and the target trajectories with respect to the three discussed Europe 2020 climate and energy goals.

While GHG emissions have been reduced by 8.5% between 2005 and 2012, they need to be cut by a further 11% from 2013 to 2020. The share of renewable energy consumption has been increased by 34.7% between 2005 and 2012 and must be further increased by 14% from 2013 to 2020. Final energy consumption has decreased by 1.4% between 2005 and 2012 but cannot be allowed to grow further until 2020; otherwise the target trajectory cannot be met.

Table 11: Climate and Energy Data, actual vs. target trajectory, 2005 - 2020

	GHG emissions in Mio. t CO_{2e}		Renewable Energy Share in %		Energy Efficiency as Primary Energy Consumption in PJ	
2005	60,5		23,9		1.111	
2006	58,1		25,4		1.106	
2007	55,4		27,4		1.095	
2008	56,9		28,3		1.109	
2009	56,1		30,4		1.071	
2010	58,2		30,8		1.138	
			target	actual		
2011	56,5		31,1	30,7	1.103	
2012	55,3		31,4	32,2	1.096	
2013	54,29		31,7		1.097	
2014	53,29		32,0		1.097	
2015	52,32		32,4		1.098	
2016	51,36		32,7		1.098	
2017	50,42		33,0		1.099	
2018	49,50		33,3		1.099	
2019	48,59		33,7		1.100	
2020	47,70		34,0		1.100	
growth rate 2005-2012	-1,28		4,35		-0,20	
growth rate 2011-2012	-2,12		4,89		-0,65	
growth rate 2012-2020	-1,83		0,68		0,04	

Source: Umweltbundesamt, Statistik Austria, own calculations.

2.5.2 Policies for reaching the climate targets

Key policy options

Key policy options for reaching the climate targets must address all energy-relevant sectors of the economy, namely manufacturing industries and construction, with a share in Austria's GHG emissions of 30.9% (2012), transport (27.1%), energy industries (15.5%), space heating (13.6%), agriculture (9.4%) and waste management (2.1%) (Umweltbundesamt, 2014). The challenge for the design of measures to combat climate change and reduce energy use consists in securing the generation of the necessary energy supply (e.g. for heating, lighting, mobility, production) with significantly lower primary energy input and lower emission intensity (CO_2 per energy unit). This requires higher energy efficiency for user and transformation technologies as well as a more widespread use of renewable energy. Climate and energy policies play a key role in the EU2020 strategy because they must ensure that any growth in GDP is sustainable, i.e. does not lead to increased energy use and emissions of greenhouse gases. Moreover, they must achieve the (absolute) decoupling of economic growth from (fossil) energy use and GHG emissions. Sectoral policies are effective as they address sector specific technological and behavioural aspects of energy intensity, energy use behaviour and emissions. Some important starting points or key policy options to be addressed in the design of future climate and energy policies are briefly summarized below.

Manufacturing industries

There is a large potential for higher energy efficiency in those areas of manufacturing industries that require heat because heat generation is predisposed for the use of highly efficient industrial co-generation. The sector is characterized by a trend shift towards a higher consumption of electricity while the share of renewable energy input is rather small. There are specific requirements for R&D investments in the energy-intensive iron and steel industries and the cement industry etc. that are characterized by specific process engineering and production functions responsible for the bottlenecks in energy efficiency improvements. Other aspects of consideration relate to structural changes within the manufacturing industries. The main tool for climate policy in this area is however the EU ETS, which is not in the realm of national policy making.

Transport

The reliance on fossil fuels for transport services and the growth dynamics in demand for both passenger and freight transport is responsible for the high and growing share of transport related GHG emissions. There is an overall need for a fundamental reconsideration of transport service demand. Three main strategies may guide the way: avoid, shift, and improve. Additional transport demand needs to be avoided; transport demand should be satisfied by more energy-efficient modes and thus requires policies that shift demand for transport services, e.g. from individual motorized transport to more efficient modes such as public transport; and transport services need to improve its energy efficiency, e.g. by substituting traditional com-

bustion engines for alternative propulsion systems (hybrid electric, natural gas) and alternative fuels (biofuels, electricity from renewable resources).

Energy industries

In principle, the share of renewable energy sources must increase as to decarbonise the energy sector. The transformation technologies and the distribution networks must be restructured in order to become more energy efficient, e.g. the combined supply via highly efficient co-generation technologies is particularly relevant for this sector. In addition, new challenges arise from the increased use of renewable energy which has a fluctuating supply, new producer-consumer structures, e.g. de-centralized energy production, and new demand segments from e.g. e-mobility. As with manufacturing, the key climate policy instrument for energy generation is the EU ETS. However, for this sector also national policies, especially the support scheme for electricity generated from renewable energy sources (feed-in tariffs) are relevant.

Buildings

The building sector (other sectors) plays a key role in climate and energy policy. Efforts to raise energy efficiency have long been supported mainly by new construction. Energy saving investments into the existing stock of buildings offers a large potential for improvement, notably for single and double family homes, which according to the 2001 census of buildings and dwellings ("Gebäude- und Wohnungszählung") make up around 75 per cent of the total stock. A significant increase in the share of insulated buildings is indispensable for an increase in energy efficiency. Since 2009 increased efforts are made concerning thermal refurbishment of the building stock. The support started as part of the economic recovery package in 2009 and is since continued as "Sanierungsoffensive".

Public investments and research for clean energy

Market studies anticipate strong advances in climate and energy technologies by 2020. While Austria's environmental and clean energy technology providers have over two decades proven to be very innovative and successful also on foreign markets (Köppl et al., 2013), the industry's growth potential will not only depend on the implementation of respective climate and energy policy instruments but also on research and investments in this area. According to Austria's "Forschungs- und Technologiebericht 2013" (BMWF – BMVIT – BMWFJ, 2013), public expenditure on energy research accounts for 2 per cent of total public research expenditure. This share has remained rather stable over the period 1997 – 2013. Another 3% are generally spent on research for environmental protection. Even if the share is constant, in recent years expenditures in energy related research have gained in momentum. The introduction of the "Klima- und Energiefonds" contributed to the increase in available support for energy related research in Austria. In the period 2010 – 2012 annual expenditures amounted to around 120 million € (Indinger – Katzenschlager, 2013).

However, in comparable countries such as Finland, Denmark, Sweden, Switzerland, the share of energy related research in total research expenditures share is substantially higher. Thus, energy research is a priority area for public support which also serves the EU 2020 goals.

Measures in the NRP – correspondence with key policy options and bottlenecks

Political measures that address the 20-20-20 targets of reducing GHG emissions, augmenting the share of renewable energy production and improving energy efficiency are taken from the national reform programme of 2013. Listed measures address the national level only and thus the display of measures is not exhaustive. Each of these measures is assigned to a single main target (target a) to c)) accordingly. In fact, most measures serve different purposes at the same time (see the column "qualitative assessment of proposed measure"). In addition, policy measures are not systemized according to their relative role and value in achieving the main targets. Such systematization would require a profound and comprehensive analysis of the impacts of each measure on GHG emissions reduction, energy use and renewable energy growth. This, however, was not the objective of the present study. Furthermore, the measures are not clearly hierarchically defined as some measures overlap with others, e.g. the Climate and Energy Fund (KLIEN).

From these measures it can be concluded that a strong focus on funding activities (deployment of low carbon and energy efficient technologies) prevails. Complementary policies that address price signals, i.e. carbon taxes, and thereby the demand side of energy use, including the subject of rebound effects from energy efficiency, are lacking in most sectors with the exception of the transport sector (car registration tax). In fact it seems as if a coherent and comprehensive approach to a climate and energy policy aiming at achieving the 20-20-20 targets has not yet been conceived despite the very fundamental funding schemes and policy initiatives that have been set.

Hereafter, the selected measures are briefly analyzed along the lines of the analytic grid. However, assessing the potential contribution of the measures to reaching the targets is, in most cases beyond the scope of this project.

The climate initiative „**klima:aktiv**" was founded by the Austrian Ministry of Agriculture, Forestry, Environment and Water Management in 2004 and is part of the Austrian climate strategy. The primary objective of "klima:aktiv" is to introduce and promote the rapid diffusion of climate friendly technologies and services on the market. The initiative is managed by the Austrian Energy Agency and deals with 4 areas: transport, energy saving, buildings and refurbishment, renewable energies. The first programme period ran until the end of 2012 and offered services in the field of vocational training and education (green skills), quality assurance measures, promoting standards, information, consulting and awareness raising, the market introduction and deployment of low carbon and energy efficient technologies with private partners and the federal states. The programme also comprises electro mobility model regions. The programme's activities correspond to the key policy options described above. The

impact of "klima:aktiv" is potentially high as to the yearly monitoring of its GHG emissions reductions achieved. An evaluation was carried out analysing the programmes effects and its strengths and weaknesses in order to contribute to improvements in the second period until 2020.

The **Green Electricity Act** is a key element of Austria's energy and climate policy legislation and addresses the sector of energy generation (key policy option). The objective of the Green Electricity Act is to raise the share of subsidized green electricity to 15% by 2015[34]. Due to the higher cost of electricity produced on a renewable basis funding is required in order to promote green electricity. The support is granted via feed-in tariffs over a certain period or via investment support. The tariffs vary according to technology used.

The potential contribution of the Green Electricity Act to raise the share of renewable energy is high but actual effects depend upon the design of the Act. The legislation has been amended several times with respect to the level and duration of the technology specific tariffs. These amendments also contributed to uncertainty with respect to long term planning security of investments. The Green Electricity Act was evaluated by E-Control Austria in 2007, analysing the development of green electricity in terms of quantities and costs as well as additional potentials and barriers for further expansion.

Several funding programmes have been established that relate to different sectors of the economy (key policy options), such as the support programme for thermal housing refurbishment ("**Sanierungsoffensive**" 2011-2016) for residential and commercial buildings, the environmental support programme in Austria (**UFI**) and the Fit for SET programme on funding for research on energy and technological development and demonstration projects related to smart cities. These programmes are generally suitable for contributing to the main 20-20-20 targets.

Originally, the funding programme for thermal housing refurbishments was developed as a measure of economic recovery following the economic crisis in 2008/09. The economic effects related to this measure and other support areas of the federal environmental support scheme (UFI) were analysed in Kletzan-Slamanig – Steininger (2010). In addition, the federal environmental support scheme is evaluated on a regular basis regarding the ecological-technical aspects, organisational issues and economic effects (see e.g. BMLFUW, 2011).

The Climate and Energy Fund (**KLIEN**) was established in 2007 by the Austrian Federal Government in order to support the realization of the Austrian climate strategy and is part of Austria's environmental legislation (Climate and Energy Fund Act). The Climate and Energy Fund Act aims at the research and development of sustainable energy technologies and on climate change with particular emphasis on public transport in passenger and freight transport.

[34] This objective is further broken down to technology specific targets (see Ökostromgesetz 2012 §4). §4(2) further clarifies that "*Bis zum Jahr 2015 ist die Neuerrichtung und Erweiterung von Anlagen in einem solchen Ausmaß zu unterstützen, dass durch Anlagen mit Kontrahierungspflicht durch die Ökostromabwicklungsstelle und durch Anlagen mit Anspruch auf Investitionszuschuss ein Gesamtstromanteil von 15%, gemessen an der Abgabemenge an Endverbraucher aus öffentlichen Netzen, erzeugt wird*."

The potential contribution of the programme to the key policy options for reaching the main targets is considered to be high but depends on the rate of implementation and diffusion of research results, either in the form of technological demonstration projects or contributing to achieving behavioural changes. The programme has yet not been evaluated.

3. An overview of policies addressing the Country Specific Recommendations

In addition to last year's detailed look at the target paths to reach the Europe 2020 goals, this edition of the monitoring of the implementation of Austria's national reform programme has a close look at the country specific recommendations (CSR) addressed to Austria within the European Semester (see Council of the European Union, 2013). Of the seven broad recommendations, recommendation 1 and 7 (see box below) are not within the scope of this monitoring exercise. We break down the broad CSR into narrower recommendations and analyse them in turn. Every section follows the same structure: first, we discuss whether the CSR is appropriate, i.e. whether according to judgement by WIFO experts the CSR addresses an economic problem to be tackled in priority by Austrian authorities. Second, we shortly sketch key policy options to address the problems underlying the individual CSRs. Third, we analyse on the basis of the NRP and the key policy options outlined the measures which have been taken by the government to respond to the CSR. We conclude on whether the measures taken correspond to the key policy options and as such can be seen as important steps toward meeting the CSR, or whether important key policy options remain unaddressed.

As the CSR are very heterogeneous in terms of scope and level of specificity, our investigation of the CSR is necessarily also heterogeneous. In addition, some of the CSR overlap with the discussion above on the target paths, to which we will refer to keep the analysis short. More precisely, there already has been discussion on employment and education policies, while competition and regulation, the effects of taxation on employment and health care reform were not part of the discussion above. Policies which have not been discussed in detail already will hence be examined in much greater detail.

Box: CSR 2013 for Austria

1. Deficit reduction and fiscal relations between government layers

Implement the budget for the year 2013 as envisaged so as to correct the excessive deficit in a sustainable manner and achieve the average annual structural adjustment effort specified in the Council recommendations under the Excessive Deficit Procedure. After correction of the excessive deficit, pursue the structural adjustment effort at an appropriate pace so as to reach the MTO by 2015. Streamline fiscal relations between layers of government, for example simplifying the organisational setting and aligning spending and funding responsibilities.

2. Pensions

Bring forward the harmonisation of pensionable age for men and women, increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy, implement and monitor the recent reforms restricting access to early retirement and further improve older workers' employability in order to raise the effective retirement age and the employment rate of older workers.

3. Employment

Take new measures to increase the labour market participation of women, namely by further improving child care and long-term care services and address the high gender pay and pension gaps. Fully use the labour market potential of people with a migrant background by continuing to improve the recognition of their qualifications and their education outcomes. Reduce the effective tax and social security burden on labour for low-income earners in a budget-neutral way by relying more on other sources of taxation less detrimental to growth, such as recurrent property taxes.

4. Health care

Effectively implement the recent reforms of the health care system to make sure that the expected cost efficiency gains materialise. Develop a financially sustainable model for the provision of long-term care and put a stronger focus on prevention, rehabilitation and independent living.

5. Education

Improve educational outcomes, in particular of disadvantaged young people, including by enhancing early childhood education and reducing the negative effects of early tracking. Further improve strategic planning in higher education and enhance measures to reduce dropouts.

6. Competition and regulation

Further strengthen the powers and resources of the federal competition authority and monitor the implementation of the competition law reform. Remove excessive barriers for service providers. This includes reviewing whether existing restrictions on entry and conduct in regulated professions are justified by general interest and fostering competition notably in the railway sector.

7. Financial stability

With a view to maintaining financial stability continue to closely oversee the nationalised and partly nationalised banks and speed up their restructuring

3.1 CSR relating to pensions

"Bring forward the harmonisation of pensionable age for men and women, increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy, implement and monitor the recent reforms restricting access to early retirement and further improve older workers' employability in order to raise the effective retirement age and the employment rate of older workers."

Background: is the CSR appropriate?

The average effective retirement age in Austria is low compared to other European countries. One reasons for this is the gap in statutory retirement ages between men and women (65 for men and 60 for women) which implies lower average effective retirement ages for women. But also the high share of persons leaving the labour market via different forms of early retirement schemes works to considerably reduce average retirement age.

The European Commission recommends that Austrian policy should aim at:

1. Harmonizing female and male statutory retirement age sooner than planned
2. Reducing the share of workers entering early retirement schemes
3. Increasing effective retirement age by aligning retirement age or pension benefits to changes in life expectancy
4. Improving older workers' employability in order to raise the effective retirement age and employment rate of older workers

We discuss these recommendations in turn. The Austrian government does currently not aim at harmonizing the statutory retirement age sooner than planned. This recommendation is at the moment not seen as a key policy option in the Austrian pension system, as given the large share of workers leaving the labour market via early retirement schemes, there is a large gap between effective and statutory retirement age as well as a large gap between age at employment exit and age at retirement entry (Horvath – Url, 2013). Harmonising the statutory retirement age would hence not produce substantial short-term benefits. The gap between the age at employment exit and the age at retirement entry highlights the significance of unemployment, sickness or out of labour force periods prior to retirement.

Reducing early retirement rates on the other hand is highly relevant in the Austrian context and already led to pension reforms that came into effect recently and should work to decrease early retirement rates considerably (see below and chapter 2.3. "Increasing the labour market participation of older persons").

The recommendation to adapt the financing principles of the pension system by aligning retirement age or benefits to changes in life expectancy may appear attractive at first glance since it dispenses future governments from stepwise adapting pension rules (pensionable age or level of benefits) which may be difficult in practice. Therefore a pension system which comprises of such automatic demographic adaption mechanisms may seem convenient. On the other hand such correction factors may also lead to successive benefit reductions, resulting in increasing old age poverty rates if implied deductions of benefits are large. As life expectancy increases, automatic increases in the statutory retirement age also entail the problem that such an increase will only partly translate into increasing employment rates because a large share of pensioners enter the pension system via unemployment, sick leave or other forms of "out of labour force" (Horvath – Url, 2013). Increasing the statutory retirement age in times of weak economic performance therefore bears the risk of mainly shifting large parts of older people into unemployment or the health care system rather than effectively keeping them in employment longer (and therefore financially relieving the pension system).

Increases in retirement age should be accompanied by sustainable labour market measures (including health measures such as rehabilitation) and also take into account the current labour market situation of older people. Therefore the recommendation to improve older workers' employability is very welcomed, even though the recommendation is formulated very vaguely. The recent increase in unemployment that was particularly large among older

people as well as the large gap between employment exit and entering retirement reveal the need to prepare the labour market for the structural changes implied by future demographic trends.

Overall increasing statutory retirement age (either by harmonizing retirement age for males and females sooner or by aligning retirement age to changes in life expectancy) does not seem to be of top priority given the large gap in effective and statutory retirement age, recent unemployment developments as well as the already prevailing gap between exit from the labour market and entry into retirement. Tackling these gaps and improving workers' employability on the other hand are highly relevant aspects for Austria in order to raise effective retirement ages and employment rates of older workers.

Key policy options

Policy options mentioned in the CSR are only partly relevant for the Austrian case, as described above. Other key policy options in the context of pensions and older workers employability mainly concern health prevention at the work place, rehabilitation for those with health issues and educational measures that increase employment prospects especially for those with low education levels as well as employment support programmes that ease older workers' transition from unemployment to employment. Measures in this context are highly relevant given the low employment rates especially among older workers with low education levels as well as the large share of workers leaving the labour force early due to impaired health conditions or unemployment.

At the same time incentives for employers to invest in health prevention measures and to (re)employ older workers are important policy options that foster older workers' employability (compare section 2.3 "Increasing the labour market participation of older persons").

Correspondence of measures in NRP with key policy options and CSR

- Harmonisation of pensionable age for men and women

This recommendation is not directly addressed by NRP and the current government programme also does not include any reforms that aim at harmonising the pensionable age for men and women ahead of the planed schedule. Thus, the current path of harmonisation that increases female pensionable age by six months each year between 2024 and 2033 will be retained.

- Increasing effective retirement age by aligning retirement age or pension benefits to changes in life expectancy

No measures aim at the inclusion of an automatic demographic factor into the calculation of pension allowance or pensionable age.

- Monitor the recent reforms restricting access to early retirement

The Austrian government has passed resolutions that lead to marked changes in the access to early retirement. These changes that are contained in the National Reform Programme concern:

  - Changes in early retirement due to long time insurance (Hacklerregelung)
  - Changes in invalidity pension ("IP-NEU")
  - Amendment of the corridor pension
  - Pension account

The retirement scheme for the long time insured (Hacklerregelung) has been reformed in the past and these changes come into force from 2014 onwards. The most important change in this respect concerns an increase in the minimum pensionable age by two years from 60 to 62 for men and from 55 to 57 for women. Additionally, substitute periods for time spent in education (Ausbildungsersatzzeiten) are no longer recognized as an insurance period which implies that the minimum insurance period will be much harder to fulfil for most workers. Also, the pensionable age for women will gradually increase to 62 from 2016 on. Changes in the invalidity pension scheme imply that from 2014 onward, people below the age of 50 are no longer able to temporarily retire due to disability or health conditions but will receive rehabilitation benefits instead. This measure aims at preventing people from completely withdrawing from the labour market early since temporary invalidity pensioners only rarely re-enter the labour market. Also the entitlement of early retirement via the "Corridor Pension" will be stepwise increased to 40 years. These reforms should in sum have considerable effects on the number of workers transiting to early retirement, although the especially the latter measure will results in prolonged unemployment spells for older unemployed workers as long as prospects for re-employment remain low for older workers.

The current government programme schedules also a monitoring system that observes how effective retirement age as well as employment rates of older persons change. Also single measures will be monitored in order to assess in how far these measures contribute to increasing employment rates and retirement age. If developments lag behind expectations an intervention process is started that should bring employment and pension age back on track. These measures therefore correspond partly to the CSR.

- Further improve older workers' employability in order to raise the effective retirement age and employment rate of older workers

Given the large share of people entering the pension system via unemployment, sickness or other forms of "out of labour force" implies that improving workers' employability is crucial for raising the effective retirement age. The National Reform Programme contains several measures that aim at this pivotal issue with measures that aim at health prevention, rehabilitation, supporting reintegration into employment as well as legal aspects concerning early retirement (see section above). Among these:

- Reform of the old-age part-time scheme
- Amendment of Occupational Safety and Health at Work for Employees Act (ArbeitnehmerInnen-schutzgesetz - ASchG
- "Health road"
- Reform of the disability pension scheme ("Disability in transition II")
- "Fit2work"
- IP New: reform of disability pension system for workers under the age of 50

Employability is not solely a worker related topic. Employment prospects (especially for older workers) heavily depend on workplace conditions and the willingness of employers to invest in their workers' health and safety as well as employing older workers. In general the employer side of the economy is underrepresented in this context, even if first steps towards employer side incentive measures are planned in the current government programme (bonus-malus system).

The current government programme also lists several measures that aim at increasing effective retirement age and sets itself ambitious targets: by 2018, the average retirement age of males and females should increase from 58.4 (2012) to 60.1 years. In order to achieve this goal the government plans to:

- Consistently implement the doctrine of prevention, rehabilitation and labour market integration of older people
- Increase incentives to remain in the labour market longer than the minimum pensionable age (by introduction a partial pension (Teilpension) and increasing the "postponing bonus" (Aufschubbonus) from 4,2 to 5,1%)
- Intensifying the efforts to permanently reintegrate older, unemployed persons (e.g. via a "hiring bonus" for firms employing older unemployed persons)
- Extending and stabilising employment of older workers (e.g. by introducing a bonus-malus system)
- Permanently monitoring measures to increase retirement age

These measures together with recent changes in the pension system (IP-NEW, Hacklerregelung and Corridor-Pension; see above), should increase labour force/employment rates of older people and lead to an increase in the average retirement age. On the positive side, further steps to increase incentive for prolonging working life are intended (e.g. increasing "postponing bonus") but it must be noted, that these measures suffer from an insider-outsider problem, as such measures only affect those in employment. Thus, for those how enter the pension system from e.g. unemployment these measures will have no effect other than pro-

longing their unemployment periods. In how far employer side incentive measures will affect firms' behaviour will depend to a large extent on the size of costs and benefits involved.

All in all, only parts of the CRS are addressed in the NRP and the current government programme. Pensionable age between males and females will not be harmonized faster than already planned and there are no plans for aligning retirement age or pension benefits automatically to changes in life expectancy. Given the large gap between effective and statutory retirement age and current increases in unemployment such measures are not of top priority and would lead for large parts of concerned workers to prolonged unemployment or sickness periods rather than prolonged working carers.

Policies however focus on closing the gap between effective and statutory retirement age by fostering older workers' employability and monitoring the effectiveness of already enacted pension reform. Different measures address these parts of the CSR well, although more emphasis should be given on employer side incentives to (re)employ older workers as well as investing in workplace design and health care prevention. While some measures (such as investing in active labour market programmes addressed to elders) are likely to have positive employment effects, it remains to be seen how the introduction of e.g. a bonus malus system will affect firms' employment policies and therefore older persons' employment prospects.

3.2 CSR relating to employment

3.2.1 Labour market participation of women and people with a migrant background

"Take new measures to increase the labour market participation of women, namely by further improving child care and long-term care services and address the high gender pay and pension gaps.

Fully use the labour market potential of people with a migrant background by continuing to improve the recognition of their qualifications and their education outcomes. "

Background: is the CSR appropriate?

This CSR addresses crucial issues, as especially female full-time employment is still low in Austria. At the same time the high level of segmentation on the labour market as well as within the education system are core factors that drive the large gender pay gap in Austria. Since care activities are still largely provided by women, improving the quality and quantity of care infrastructure is of high importance in fostering female labour market participation.

Foreign born are also disadvantaged in the Austrian labour market. Easing the recognition of foreign qualifications certainly addresses this issue but is not sufficient in order to overcome the disadvantages of foreign born which reveal themselves e.g. by lower educational attainment rates or higher shares of persons with migration background working in jobs for which they are formally over-qualified (Vogtenhuber, 2012; Stadler and Wiedenhofer-Galik, 2010). Witting or unwitting discrimination of persons with migration background should not be underestimated as well as the degree of labour market segmentation that negatively affect employment prospects and may lead to persons with migration background being employed below their qualification levels more often (Biffl – Pferrer – Skrivanek, 2012). Addressing educational outcomes of foreign born (as well as second and third generation migrants) from an early stage on is extremely important in order to improve their labour market outcomes.

This CSR is of high relevance in Austria and coincides to a large extent with parts of the EU 2020 target of increasing the employment of those aged 20 to 64 (see section 2.3).

Key policy options

Key policy options to increase labour market participation of women concern the compatibility of family and work (quantity and quality of care infrastructure; opening hours) since important constraints that hinder (full-time) employment participation of women are associated with unpaid care activities. Especially the unequal distribution of unpaid care activities between men and women implies lower (full-time) employment rates among women. At the same time the strong labour market and occupational segmentation as well as the large gender pay gaps are of particular concern. Increasing the share of females in non-traditional

occupations and fostering male participation in care-activities are two important policy options in fostering female employment and earnings (see section 2.3.2).

Fostering the use of the labour market potential of people with migrant background requires measures that reduce educational and occupational disadvantages. Removing barriers that hinder people with migrant background from making full use of their qualifications by easing their recognition can improve labour market outcomes. At the same time educational disadvantages and language abilities must be addressed from early childhood on.

Correspondence of measures in NRP with key policy options and CSR

- Labour market participation among women by further improving child care and long-term care services and address the high gender pay and pension gaps

The National Reform Programme lists several measures that aim at fostering female labour market participation mainly by improving the infrastructure of care activities, the reduction of gender specific labour market segmentation as well as direct measures to support female employment (see section 2.3).

The current government programme addresses female employment, mainly by extending child care facilities, social services and improving support programmes for women after maternity leave. Some improvements are intended concerning child care activities by increasing the flexibility of child care benefits and further extension of childcare places, but the incentives for men to go on parental leave remain low.

At the same time the government programme intends to examine the possibility to decrease the legal entitlement of parental part-time work (Elternteilzeit) from the child's seventh to its fifth year of age. The intention might be that this may foster female full-time employment. However, the possibility of working full-time depends strongly on the availability of full-time child care facilities. Without sufficient high quality childcare a decrease in the maximum duration of parental part-time work may force females out of employment rather than foster their employment. Measures should also aim at increasing incentive for a more equal split of parent part-time work. One important aspect concerning care-work is addressed in the programme by the introduction of a care-leave (Pflegekarenz) and a care-part-time scheme that helps concerned persons (mostly women) to take care of their relatives (for a maximum of three months) without completely withdrawing from the labour market.

- Labour market potential of people with a migrant background

The National Reform Programme lists several measures that aim at fostering labour market participation educational disadvantaged persons that are relevant also for persons with migration background. These measures aim at increasing educational attainment levels of youth (training guarantee, supra-company apprenticeship training, youth coaching). For persons with migrant background special measures aim at easing the recognition of foreign qualifications for better labour market integration/qualified employment or improving lan-

guage skills. A programme for easier recognition of foreign education/occupation qualifications has already been introduced.

The current government programme lists some additional measures in order to foster migrants' labour market integration, aiming e.g. at the reduction of NEETs by introducing a compulsory occupational and education coaching system. From 2016 onwards "compulsory schooling" (Schulpflicht) shall be extended to "compulsory education" (Ausbildungspflicht) in order to prevent youths from leaving the school system with no formal degree which should improve labour market prospects for concerned youths. In order to foster labour market prospects of educationally disadvantaged young persons (with migration background) the government plans to introduce a second cost-free year of kindergarten, which is generally appreciable. It is however important to extend the quantity and quality of childcare places at the same time, in order to avoid "crowding out" effects. Thus, extending free childcare from one to two years should not come at an expense of childcare places for younger children. Improving language skills in early childhood is definitively an important issue; however, they should not serve as an exclusion criterion from the schooling system ("German before schooling").

Overall the NRP takes some important steps in order to foster female labour market participation but more incentives for male child-care participation would be appreciable. Labour market segmentation and the large gender pay gaps remain core issues that need further improvement. Programmes that directly address persons with migration backgrounds are scarce within the NRP and appear not to have a great impact on employment rates. Simplifying the recognition of foreign qualifications is important for reducing labour market disadvantages but do not remove e.g. differences in educational participation (inheritance of education; early school tracking). These issues must be addressed more.

3.2.2 Changing the tax structure to foster employment

"Reduce the effective tax and social security burden on labour for low-income earners in a budget-neutral way by relying more on other sources of taxation less detrimental to growth, such as recurrent property taxes."

Background: taxation and growth – is the CSR appropriate?

Early work on the influence of taxes on growth focused primarily on the level of total taxation, hypothesizing a negative relationship between the tax ratio (revenues from taxes and social security contributions in relation to GDP) and economic growth. Meanwhile, however, ample empirical evidence has accumulated that a relatively high tax ratio does not necessarily impact negatively on economic growth (see e.g. *Arnold*, 2008, *Myles*, 2009, *European Commission*, 2008 and 2010): not least because the explanatory power of the existing empirical studies is limited by endogeneity problems, the neglect of growth-enhancing expenditures fi-

nanced by tax revenues, statistic/conceptual problems in defining the tax ratio, and the disregard of taxation structures (*Pitlik – Schratzenstaller*, 2011).

Recently, the last of these numerous points of criticism has inspired several empirical analyses examining the relationship between growth and the tax structure as a whole. Of these, one study conducted under the roof of the OECD (*Arnold et al.*, 2011) and another one by IMF economists (*Acosta-Ormaechea – Yoo*, 2012) have drawn particular attention in tax theory as well as tax policy, as – in contrast to most previous studies focusing on growth effects of specific taxes in a more or less isolated perspective – they study the growth impact of different tax categories in a comparative perspective. Their result of a "tax-and-growth-hierarchy" (see Figure 18) ranking the various types of taxes according to their growth-friendliness has been influencing also recent analyses (e.g. *Prammer*, 2011) and tax policy recommendations by the European Commission (as, for example, in the latest Annual Growth Survey 2014; see *European Commission*, 2013D) in general, and is obviously one of the pillars the latest country-specific recommendations in the realm of tax policy are based on.

Figure 18: Tax-and-growth-hierarchy

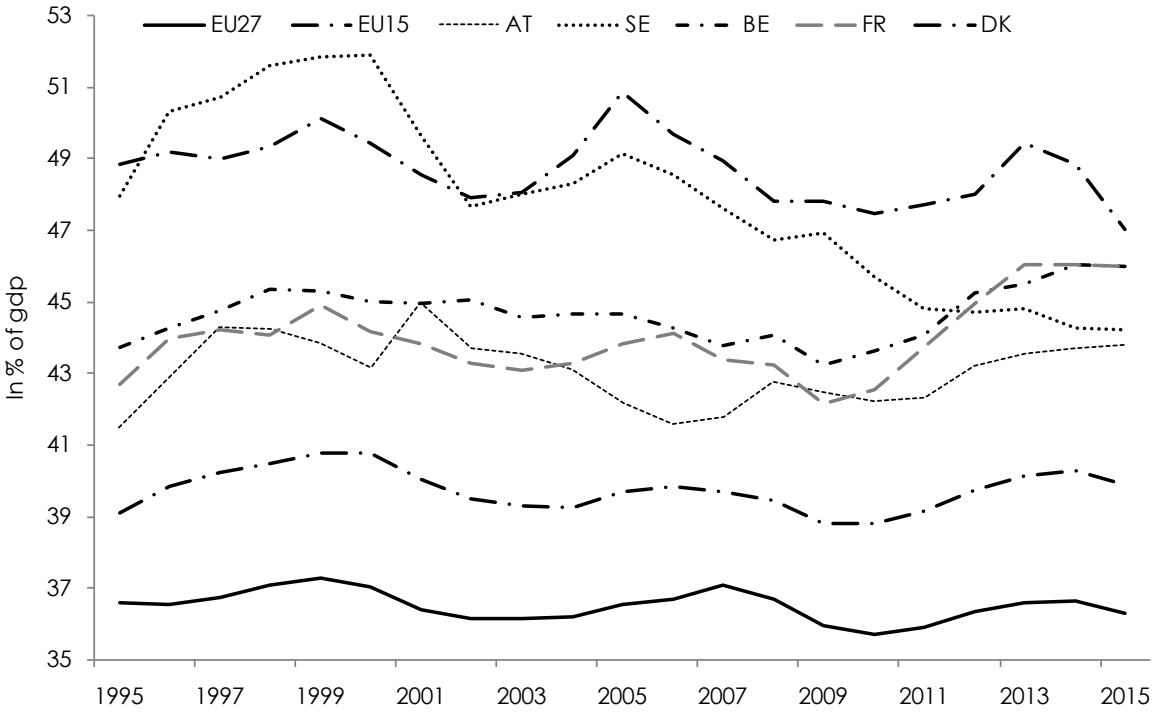
Arnold et al. (2011)	**Acosta-Ormaechea/Yoo (2012)**
Property taxes (particularly inheritance and gift tax, net wealth tax, real estate tax; less transfer taxes)	**Property taxes** (particularly inheritance and gift tax, net wealth tax; less real estate tax)
Consumption taxes (particularly environmental taxes)	**Consumption taxes** (particularly value added tax)
Personal income tax, social security contributions and payroll taxes	**Corporate tax**
Corporate tax	**Personal income tax, social security contributions and payroll taxes**

Source: *Arnold et al.* (2011), *Acosta-Ormachea – Yoo* (2012).

According to this tax-and-growth-hierarchy, property taxes and consumption taxes can be classified as rather growth-friendly, while the personal income tax (including social security contributions and payroll taxes) and the corporate tax can be expected to be rather detrimental for growth. Thus the very general conclusion may be drawn that tax systems relying more on property and consumption taxes are more growth-friendly than those drawing heavily on personal and corporate income taxes.In Austria the tax-to-GDP-ratio (total tax burden[35])) has been exceeding the European average in every single year since the mid-nineties, as figure 1 shows.

[35]) The total tax burden includes tax revenues and social security contributions.

Figure 19: Tax-to-GDP-ratios (total tax burden) in Austria and the EU, 1995 to 2015

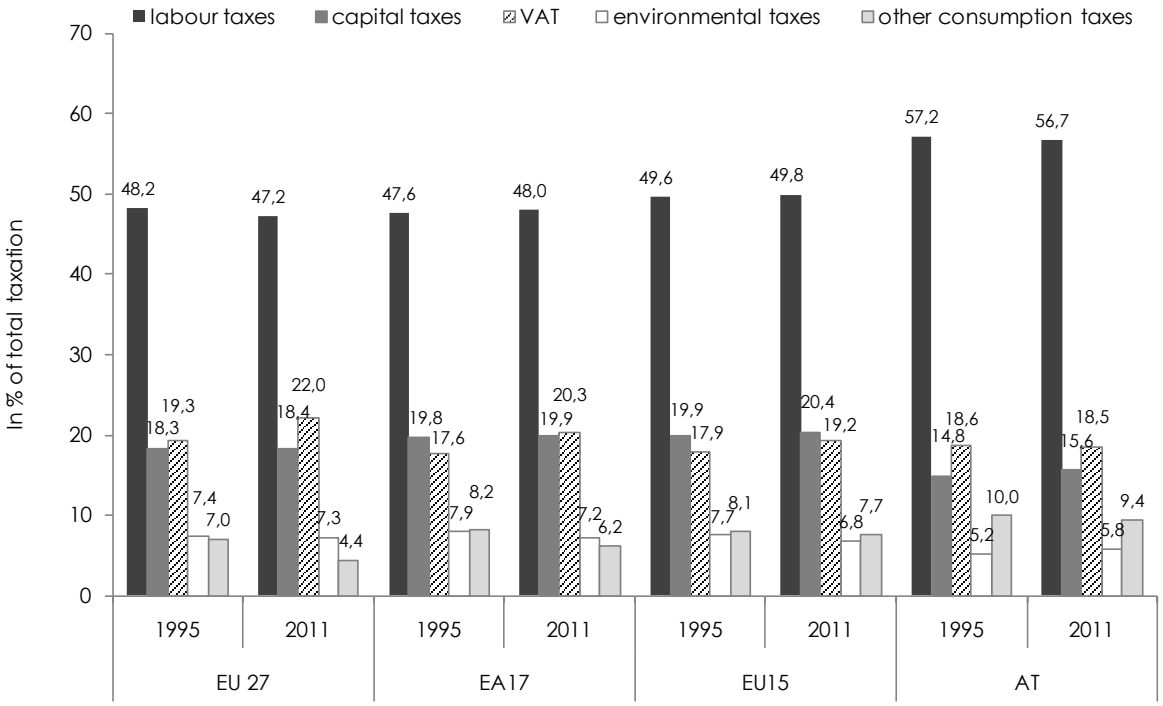


Source: European Commission (2013A). EU15 and EU27 arithmetic mean.

According to the most recent projections by the European Commission (economic forecast autumn 2013), Austria's tax-to-GDP-ratio will reach 43.8 percent of GDP in 2015 (EU27 average: 36.3 percent, EU15 average: 39.9 percent) and will thus rank (together with Italy) 6th among EU countries. Figure 1 also shows that the group of countries with even higher tax-to-GDP-ratios includes countries with good economic performance (Denmark, Sweden) as well as economically less successful countries (Belgium, France). These descriptive data support the econometric evidence of the absence of a clear-cut relationship between the level of the total tax burden and economic performance.

A first look at Austria's tax structure shows the (in European comparison) remarkable predominance of the share of labour taxes in overall tax revenues as the most striking feature (see Figure 20). Not surprisingly, almost all other tax categories – environmental taxes and other consumption taxes as well as taxes on capital – contribute less than the EU average to overall tax revenues.

Figure 20: Tax structure in Austria and the EU



Source: European Commission (2013B). - [1]) Computed as the ratio of total tax revenues of the category to a proxy of the potential tax base in %. Energy taxes (deflated, base year 2000), in Euro per tons of oil equivalent (TOE).

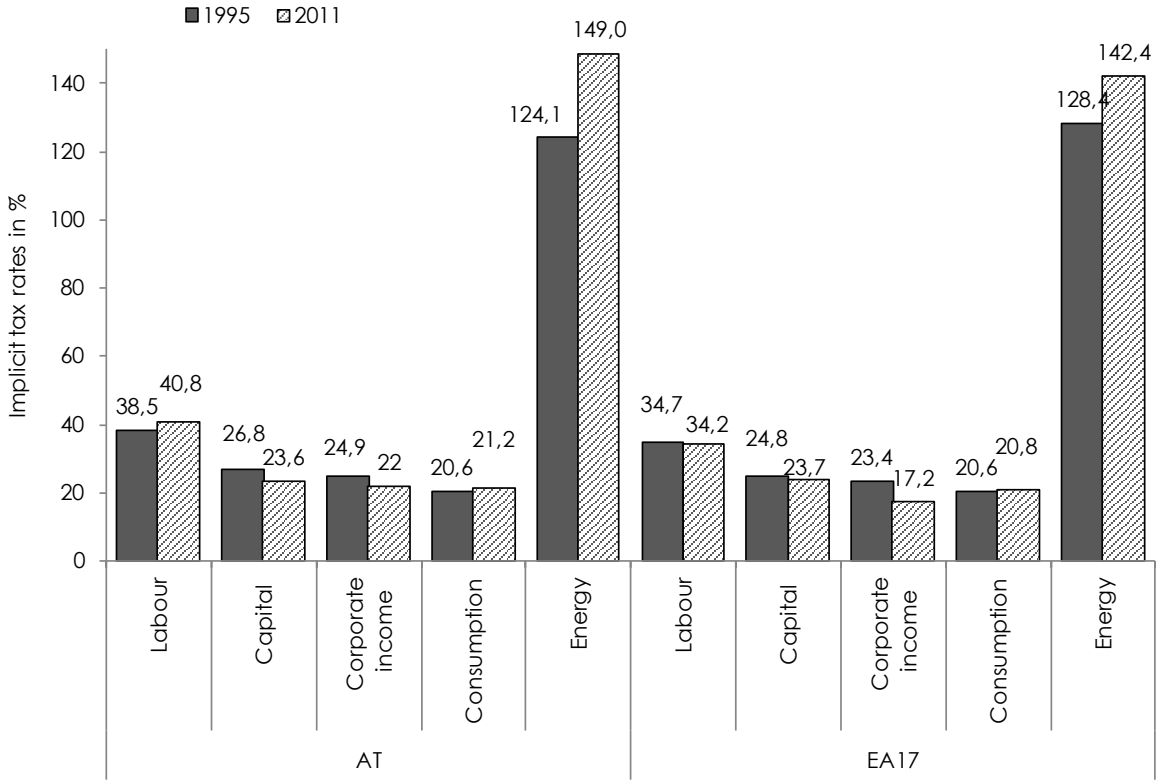
The share of property taxes, which are not recorded separately in Eurostat tax data, according to OECD statistics is significantly below EU15 average (1.2 percent of overall tax revenues in Austria versus 5.1 percent on EU15[36]) average). In contrast to the slightly increasing share of property taxes in the EU15, their share has more than halved in Austria since 1980 (*OECD*, 2013A). This development is the result of the stepwise elimination of most property-related taxes within the last 20 years: the net wealth tax (1994) and the inheritance and gift tax (2008) as the most important ones in quantitative terms. Meanwhile, the only substantial revenues from property-related taxes stem from the real estate tax and the real estate transfer tax.

For a detailed and well-founded assessment of the growth- and employment-friendliness of a country's tax system, however, a look at its overall tax structure – i.e. the shares of different tax categories in total tax revenues – can only be the starting point. In a next step, macroeconomic tax burden indicators are to be examined, as they convey a more meaningful picture of the distribution of the total tax burden across the various tax bases (whole groups of tax payers or aggregate taxable activities, respectively). Implicit tax rates relate total reve-

[36]) As not all EU28 countries are OECD members, average values based on OECD tax data are not available for the EU28.

nues stemming from the various tax categories to the corresponding tax bases and thus reflect the effective macroeconomic tax burdens on individual tax bases. Figure 3 shows the effective macroeconomic tax rates – or implicit tax rates – on consumption, labour, energy and capital for Austria and the Eurozone (EA17), as calculated by Eurostat in their yearly publication "Taxation Trends in the European Union". Between 1995 and 2011, implicit tax rates on labour and energy increased considerably in Austria, while the implicit capital tax rate (including taxes on property as well as on capital income) declined.

Figure 21: Implicit tax rates in Austria and the EU



Source: *European Commission* (2013B). - [1]) Computed as the ratio of total tax revenues of the category to a proxy of the potential tax base in percent. Energy taxes (deflated, base year: 2000) in Euro per tons of oil equivalent (TOE).

To identify incentive effects of taxes, micro-economic (marginal and average) tax rates influencing individual behaviour of private households and individuals, respectively, are of interest. In addition, existing empirical studies focusing on the growth impact of individual tax categories can provide deeper insights into the concrete channels via which these may directly or indirectly influence economic growth. In the context of this evaluation, analyses studying the influence of labour taxes on individual labour supply are of particular relevance.

Labour taxes can be assumed to influence various individual decisions shaping the quality and quantity of labour supply: employment in the shadow economy or in non-taxed sectors

of the economy (particularly in the household sector), investment in human capital, occupational choices, individual work effort and productivity, etc. Their impact on labour market participation (which is influenced by average tax rates) and hours worked (which are influenced by marginal tax rates), however, has been examined most intensely. The numerous empirical studies dedicated to the relationship between (variations of) the net wage rate (influenced by labour taxes) or (variations of) labour taxes on the one hand and labour supply on the other hand have produced the most robust and clear-cut empirical results, which can be summarised briefly as follows:[37])

- Labour taxes influence individual demographic groups and educational levels differently, as these differ in wages elasticities of labour supply.
- Labour taxes have a strong impact on the decision about participation and hours worked for some groups, e.g. mothers with young children.
- Lone mothers and men with low qualifications display a rather tax-sensitive participation decision.
- Labour tax variations have only very limited effects on participation and hours worked by men in general and by highly-qualified men in particular.

Empirical studies for Austria show that the participation elasticity for married women has been falling in the long-run but is still rather high, while married women's elasticity of weekly hours have reached a rather low level.[38] Thus average tax rates on labour income appear the more important policy variable compared to marginal tax rates.

Nominal personal income tax rates and social security contribution rates are the most simple microeconomic marginal tax rates. These are rather high in Austria, with a personal income tax rate (wage tax rate) of effectively (considering the reduced rate for holiday and Christmas bonuses) 32.1 percent for the lowest income tax bracket and a social security contribution rate for employees of 15.07 percent for low incomes, and a top income tax rate of effectively 43.7 percent and a social security contribution rate of 18.07 percent[39]) for high incomes. To assess the incentive effects of labour taxes with regard to labour supply – in particular with regard to the number of hours worked –, the combined effect of personal income tax rates and social security contribution rates (which in Austria are applied on different tax bases) needs to be determined for different levels of incomes.

The resulting microeconomic marginal effective tax rates as calculated regularly by the OECD (in their yearly publication "Taxing Wages") based on a uniform framework for all OECD countries are shown in table 2. Compared to the EU15 average, microeconomic marginal effective tax rates are considerably higher in Austria, and particularly so for lower and average labour incomes, while for an income level of 133% of average labour income they are slightly above average only. For an income level of 167% of average labour income mar-

[37]) See the extensive literature review by *Meghir – Phillips* (2010).

[38] See for an overview of empirical studies for Austria *Schratzenstaller* (2012B).

[39])Above an upper limit of 62,160 € gross yearly income (2013), the marginal social security contribution rate is zero.

ginal effective tax rates are remarkably below the EU15 average, and most remarkably also more than 10 percentage points lower that the marginal effective tax rate for income levels of 100% and 133% of the average labour income, respectively. This regressive combined effect of wage tax and social security contributions results from the upper limit for the latter ones.

Since 2000, Austrian marginal effective tax rates increased particularly at the (particularly tax sensitive) low and average income level, while they changed only marginally for above-average labour incomes. Thus, also the development of marginal effective tax rates stands in contrast to the general trend in the EU15, where marginal effective tax rates for lower and average labour incomes were somewhat reduced, while they slightly increased for above-average labour income levels.

Table 12: Microeconomic average tax rates (personal income tax and employees' social security contributions) for different labour income levels, Austria and EU15

	Marginal personal tax burden on gross labour income 2012							
	In % of average wage							
	67%	100%	133%	167%	67%	100%	133%	167%
	Tax burden (taxes and social security contributions) in % of gross labour income1)				Difference 2000/2012 in percentage points			
Belgium	54,9	59,4	59,4	59,8	+ 0,9	+ 3,9	– 1,1	– 3,1
Denmark	40,9	42,3	56,1	56,1	– 9,8	– 8,4	– 7,3	– 7,3
Germany	47,2	52,6	53,0	44,3	– 5,7	– 6,7	– 5,0	– 7,1
Greece	24,9	38,2	39,0	47,4	+ 9,0	+ 9,7	+ 10,5	+ 6,3
Spain	29,5	34,4	34,4	40,0	– 3,6	+ 5,6	+ 1,6	+ 11,7
France	31,8	42,4	42,4	42,4	– 1,7	+ 3,1	+ 6,2	+ 0,1
Ireland	31,0	31,0	52,0	52,0	+ 2,5	– 19,5	+ 5,3	+ 5,6
Italy	39,3	39,4	49,3	49,9	+ 6,2	– 1,0	+ 8,9	+ 3,4
Luxembourg	36,5	48,5	48,5	48,5	– 0,8	+ 0,2	– 3,5	– 3,5
Netherlands	42,6	44,0	49,3	49,3	– 3,2	– 9,1	– 0,7	– 0,7
Austria	44,4	49,1	49,1	37,9	+ 3,9	+ 7,9	+ 1,1	– 0,5
Portugal	25,0	35,5	35,5	46,5	– 1,0	– 0,5	– 0,5	+ 0,5
Finland	43,0	44,1	47,8	47,8	+ 0,6	– 4,0	– 5,9	– 5,9
Sweden	28,6	31,6	51,6	56,6	– 9,7	– 21,4	+ 1,2	+ 1,2
United Kingdom	32,0	32,0	42,0	42,0	+ 0,0	– 0,0	+ 2,0	+ 2,0
EU 15	36,8	41,6	47,3	48,0	– 0,8	– 2,7	+ 0,9	+ 0,2

Source: OECD (2013B). Average wage (average annual gross wage earnings of adult, full-time manual and non-manual workers in industry).

For an evaluation of incentive effects of labour taxes, a focus on marginal effective tax rates is too narrow, however. While these are important for decisions on the number of hours worked, the participation decision is influenced by average tax rates accounting for nominal tax rates and the rules to determine the tax base. Table 3 displays microeconomic average tax rates (personal income tax and employees' social security contributions) for different levels of gross labour incomes for Austria and the EU15 countries. For Austria, these are above

EU15 average for all income levels considered. While they fell on EU15 average since 2000 for all income levels regarded, they went up throughout in Austria.

Table 13: Microeconomic average tax rates (personal income tax and employees' social security contributions) for different labour income levels, Austria and EU15

	Average personal tax burden on gross labour income 2012							
	In % of average wage							
	67%	100%	133%	167%	67%	100%	133%	167%
	Tax burden (taxes and social security contributions) in % of gross labour income1)				Difference 2000/2012 in percentage points			
Belgium	36,4	42,8	46,9	49,5	+ 0,6	– 0,2	– 0,4	– 0,5
Denmark	37,5	38,9	42,3	45,1	– 3,4	– 5,3	– 6,2	– 6,4
Germany	34,9	39,9	42,5	43,8	– 1,8	– 3,3	– 4,5	– 5,0
Greece	21,1	25,4	29,4	31,9	+ 5,2	+ 8,3	+ 9,5	+ 9,7
Spain	18,2	23,9	26,5	28,1	+ 3,3	+ 4,0	+ 3,8	+ 3,7
France	26,3	28,3	31,8	33,9	+ 0,6	– 0,5	+ 1,2	+ 1,4
Ireland	11,5	18,0	26,4	31,5	– 7,2	– 9,4	– 6,3	– 2,1
Italy	26,7	30,8	35,0	37,9	+ 2,5	+ 1,9	+ 3,0	+ 3,6
Luxembourg	20,1	27,9	33,0	36,1	– 1,8	– 1,0	– 1,4	– 1,8
Netherlands	26,5	31,9	35,3	38,1	– 6,2	– 1,3	– 2,7	– 2,3
Austria	28,0	34,0	37,8	38,6	+ 2,4	+ 3,0	+ 3,0	+ 2,2
Portugal	15,9	21,7	25,2	28,8	– 1,5	– 0,7	– 0,7	+ 0,2
Finland	22,3	29,4	33,9	36,7	– 5,8	– 4,8	– 4,4	– 4,7
Sweden	22,1	24,9	30,5	35,2	– 9,6	– 8,8	– 7,7	– 5,9
United Kingdom	21,4	24,9	27,8	30,7	– 1,3	– 0,9	+ 1,9	+ 1,9
EU 15	24,6	29,5	33,6	36,4	– 1,6	– 1,3	– 0,8	– 0,4

Source: OECD (2013B). Average wage (average annual gross wage earnings of adult, full-time manual and non-manual workers in industry).

To summarise, from a growth and employment perspective, the Austrian tax system in its current design relies too heavily on labour-related taxes, particularly for lower and average labour incomes. At the same time there is some scope to increase taxes which are less detrimental for growth and employment in a revenue-neutral way to compensate for revenue losses from labour tax cuts. Specifically, certain property-related taxes (real estate tax, inheritance and gift tax) and environmental taxes (mineral oil tax, energy taxes, carbon tax) could be increased or newly introduced, along with the elimination of (ecologically counterproductive) tax exemptions in income and value-added taxes to finance reductions in labour taxes with a focus on lower and medium incomes. Such a revenue-neutral reform of the tax structure would increase the growth- and employment-friendliness of the Austrian tax system, without endangering the medium-term budgetary path aiming at reducing budget deficits and debt (and thus without compromising CSR 1). Hence, overall the CSR on the reduction of the tax and social security burden via increasing sources of taxation less detrimental to growth seems to be well justified.

Key policy options

Within the group of environmental taxes, there are various "candidates" which could be increased or newly introduced to intensify the "greening" of the Austrian tax system without endangering international competitiveness too much. One option is to raise the mineral oil tax for diesel to align it to the one applied to petrol. Another possibility would be to increase the electricity tax rate and to introduce a carbon tax (a fiscal consolidation measure implemented by several EU Member States in the last few years; see European Commission, 2013C). The existing tax rebates for energy-intensive firms would prevent a significant deterioration of international competitiveness. In addition, existing environmentally harmful tax exemptions should be decreased further: in particular, there is the need of a more environmentally-friendly re-design of the tax exemption for commuters (Pendlerpauschale) as well as for the limitation and "greening" of the tax relief for company cars, which is rather generous individually and incurs significant budgetary costs.

To strengthen property taxation, in particular two measures offer themselves.[40]) The first option is the increase of the real estate tax by basing the tax base more on real property values (market values) instead of the currently used unit values, which capture only a (decreasing fraction) of real property values. The resulting increase in real estate revenues for municipalities would create scope for the federal government to reduce personal income tax, as the municipalities' share in income tax revenues could be decreased accordingly. The second option is the re-introduction of a reformed inheritance and gift tax, which in its original design must not be applied in Austria any more since August 2008, because it was ruled unconstitutional by the Constitutional Court due to the undervaluation of real estate compared to other assets.

Measures in the NRP – correspondence with key policy options and bottlenecks

On October 15, 2013, the Austrian Ministry of Finance delivered the Austrian Draft Budgetary Plan 2014 to the European Commission and the Eurogroup, as required as one element of the European semester by all Eurogroup Members. In this budgetary forecast, measures decided or entered into effect after April 16, 2013 (submission of the Stability Programme 2012-2017) and April 29, 2013 (submission of the National Reform Programme 2013), respectively, are specified for most country-specific recommendations issued in June 2013[41]). With regard to the country-specific recommendation to reduce the tax and social security burden for low-income earners, however, no concrete measures are mentioned, as none were decided or entered into force since April 2013.

The Austrian National Reform Programme issued in April 2013 answers to the country-specific recommendations for Austria issued by the European Commission in 2012. Point 4a of these

[40]) For more details, see *Aiginger et al.* (2010).

[41]) See table 16 of the Draft Budgetary Plan 2014.

recommended with regard to taxation to "Take steps to reduce the effective tax and social security burden on labour especially for low income earners with a view to increasing employment rates for older persons and women given the need to counteract the impact of demographic change on the working population. Shift the tax burden in a budgetary neutral way, towards real estate taxes, and environmental taxes."

Thus, the CSR 2012 is almost identical to the CSR 2013, with the exception of a wider perspective regarding potential tax increases (i.e. considering also environmental taxes, not only real estate taxes) which could be used to compensate for revenue losses from cutting labour taxes for low-income earners. This wider scope of the CSR 2012 in any case seems appropriate, considering the existing imbalances in the Austrian tax system.

Table 4 contains the measures related to this recommendation according to the Austrian National Reform Programme 2013.

Table 14: Taxation-related measures taken according to the National Reform Programme 2013

Number and short title of the measure	**main policy objectives and relevance for CSR**	**description of the measure**
Measure 1: Reform of taxation of gains from sales of private real property (Immobilienertragsteuer)	close existing loopholes in private real estate taxation	gains from sales of private real property are taxed with 25% PIT
Measure 2: Marginal increases in VAT	The nature of the tax measures in the budget 2013 presented in October 2012 (Abgabenaenderungsgesetz 2012) is mainly to close existing loopholes in PIT (real estate taxation (see above)), VAT and maintaining incentives for environmentally-friendly vehicles. Moreover, the recently introduced flight tax (Flugabgabe) was reduced for reasons of competitiveness	
Measure 3: Increase the tax relief for commuters, tax exemption of the "jobticket"	Decrease PIT for commuters, "greening" of the tax system	Increase the tax relief for commuters, public transportation costs borne by employers for commuting for commuting employees are tax exempted

Source: Austrian Federal Chancellery (2013).

It appears of limited use to exclusively assess the measures included in the National Reform Programme 2013 and the Draft Budgetary Plan 2014 without putting them into the context of the overall tax policy measures implemented by the Austrian government within the last few years.[42])

As one significant element of the two stimulus packages (also in quantitative terms) which were implemented to cushion the recession following the outbreak of the financial market crisis in 2008, Austria enacted a tax reform mainly aiming at cutting personal income taxes at all income levels and at introducing tax reliefs for families. Specifically with regard to low-

[42]) For details see Schratzenstaller (2009; 2011; 2012A).

income earners, this tax reform included the reduction of the tax rate for the lowest income bracket from effectively 33.7 percent to 32.1 percent and the raise of the tax-free personal allowance from 10,000 € to 11,000 € yearly taxable income. This measure, taking effect in 2009, accompanied the reduction of the unemployment insurance contribution for employees by 3 percentage points for low-income earners from 3 percent to 0 percent as of 2009. In 2008, employees' as well as employers' unemployment contribution rates for elder employees were abolished. Finally, as of 2013, the commuter allowance was increased for all income groups and a commuter subsidy was introduced for low-incomes; particularly easing the tax burden for low-income earners.

The tax increases within the various fiscal consolidation packages introduced since 2011 contain a few measures (albeit rather small ones with respect to their expected budgetary impact) which increase the tax burden on labour: Notably the solidarity contribution for very high-income earners[43]) and the marked increase of the upper limit for social security contributions (beyond regular inflation-adjustment). These measures, however, burden high-income earners only, whose tax responsiveness accordingly to the vast majority of empirical studies is rather limited.

As part of the fiscal consolidation packages, also revenues from various environmental taxes were increased from 2011 on. The mineral oil tax and the car registration tax (NOVA) were increased and a flight tax was introduced (however, reduced as of 2013). Moreover, several environmentally harmful tax exemptions were abolished (tax exemption for liquefied petroleum gas in local passenger transport, fuel tax rebate on diesel used in rail transport and in the agricultural sector, tax rebate for energy-intensive firms other than in the manufacturing sector). The new government has just decided to further increase the car registration tax, the motor-related insurance tax (*motorbezogene Versicherungssteuer*) and the motor vehicle tax (*KFZ-Steuer*) in 2014.

Also the tobacco tax has been increased in several steps since 2011, and will be increased further in three steps until 2016 by the new government. The latest fiscal consolidation package to be introduced in 2014 also envisages the increase of additional "sin taxes", specifically the alcohol tax and the tax on sparkling wine.

None of the altogether three fiscal consolidation packages included the increase or reintroduction of property taxes in a narrow sense. However, existing loopholes were closed in the taxation of capital gains from the sale of financial assets and real estate, by taxing these independent of the length of the holding period at a uniform tax rate of 25 percent, analogous to all other capital incomes.

Overall, the latest tax reform 2009/10 as well as the tax measures already taken and still planned within the three fiscal consolidation packages eased the high tax burden on low-

[43]) The reduced rate for the 13th and 14th bonus payments is not granted for very high incomes; this measure which originally was introduced as temporary for the period from 2013 to 2016 will be extended for an indefinite period according to the most recent consolidation package, which will enter into force on March 1, 2014).

income earners slightly, contributed somewhat to the "greening" of the tax system, raised the tax burden on harmful consumption of alcohol and tobacco, as well as the taxation of property incomes by closing various loopholes. The taxation of property remained unchanged. However, the tax changes of the last few years were not embedded into a systematic approach to re-design and re-structure the Austrian tax system in a more growth-friendly way. The tax increases implemented since 2011 were not part of a methodical approach to systematically change the structure of the Austrian tax system, but were primarily motivated by the existing – and increasing – fiscal consolidation needs, which is reflected in the continuous increase of the tax-to-GDP-ratio.

While it has to be acknowledged that the tax measures implemented with the various fiscal consolidation packages were mainly designed in a rather growth- and employment-friendly way, it also has to be stated that a fundamental structural reform – including a substantial decrease of labour taxes particularly for low- and medium-income earners – is still on the agenda. Considering the current lack of fiscal scope to substantially reduce labour taxes without compensating for the resulting revenue loss, the tax system should be subject to a fundamental budget-neutral structural reform, as sketched above, to be consistent with CSR 1. Such a revenue-neutral structural reform of the overall tax system could and should be implemented at the earliest possible time. The time frame as envisaged in the coalition agreement of the new government – namely to enact a tax reform in 2016 only – does not appear as sufficiently ambitious, and if implemented in a budget-neutral way, labour tax cuts for lower incomes could be realized before reaching a structurally almost balanced budget, as planned for 2016. Moreover, the scope of the envisaged tax reform appears too narrow: according to the coalition agreement it appears to be limited to a substantial cut of the income tax rate for the lowest tax rate and more tax exemptions for families, but makes no mention at all of the obvious need to reduce social security contributions if labour taxes are to be lowered for low-income earners, considering the fact that more than 40 percent of income-earners do not pay any personal income taxes as their taxable incomes are below the tax-free personal allowance. Moreover, neither environmental nor property taxes are addressed as possible sources to finance revenue losses from reducing personal income taxation and social security contributions in the coalition agreement.

To sum up, the tax measures taken up to now (decrease of the personal income tax burden for low earners, increase of certain environmental and other „sin taxes" and of taxes on property income, closing of loopholes) are not sufficient to implement the CSR. There still is the urgent need to lower personal income tax further and to also reduce social security contributions for low incomes and to increase certain environmental taxes as well as certain property-related taxes (real estate tax, inheritance and gift tax) to compensate for the resulting losses in tax revenues. The measures taken up to now therefore address important bottlenecks but have to be intensified further.

3.3 Health and long-term care

3.3.1 Health care reform

Effectively implement the recent reforms of the health care system to make sure that the expected cost efficiency gains materialise.

Background – is the CSR appropriate?

The Austrian health system provides universal coverage for a wide range of benefits and high-quality care at an above EU- and OECD-average GDP share spent on health. Free choice of providers and unrestricted access to all care levels (general practitioners, specialist physicians and hospitals) is characteristic for the system.

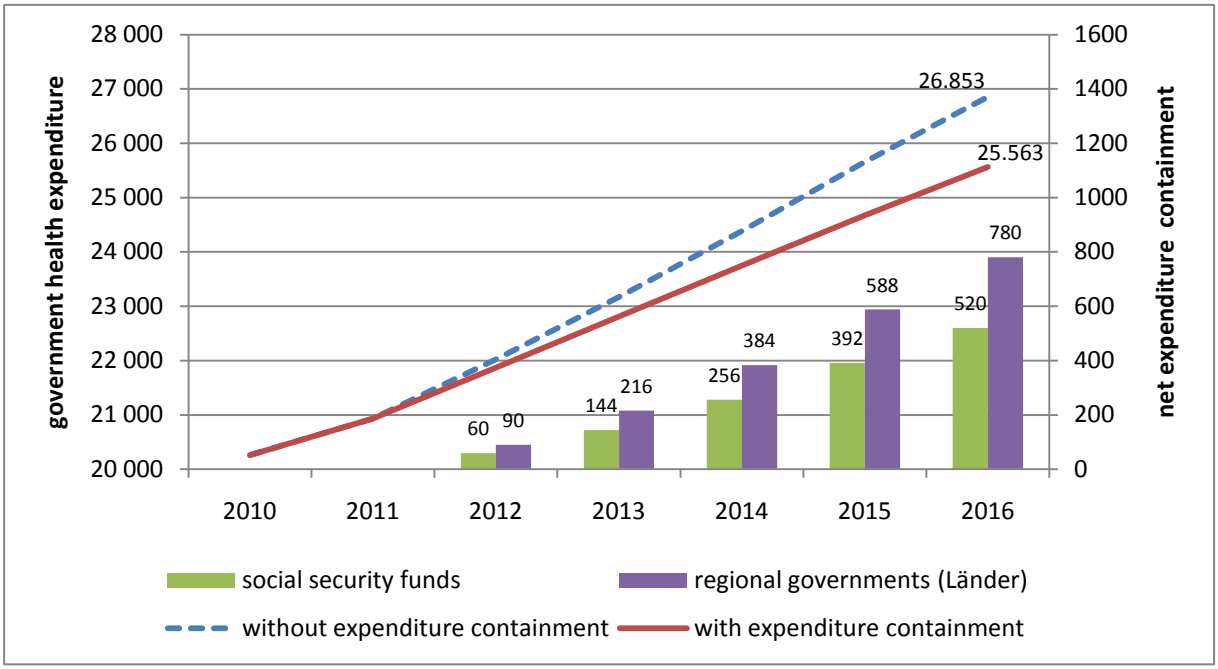
The health-care system has been shaped by both the federal structure of the state and a tradition of delegating responsibilities to self-governing stakeholders. On the one hand, this enables decentralized planning and governance, adjusted to local norms and preferences. However this fragmentation of responsibilities frequently results in inadequate coordination. Efforts have been made for several years to achieve more joint planning, governance and financing of the health-care system at the federal and regional level.

There are important structural imbalances in health-care provision, with an oversized hospital sector and relatively modest resources available for ambulatory care and preventive medicine. This is coupled with regional differences in utilization, both in curative services (hospital beds and specialist physicians) and preventative services such as preventive health check-ups, outpatient rehabilitation, psychosocial and psychotherapeutic care and nursing. There are clear social inequalities in the use of medical services, such as preventive health check-ups, immunization or dentistry.

Federal efforts to improve patient centred care have always met with administrative barriers because decentralization of service provision and spending was not appropriately aided by strategic regulation. At the same time challenges of fiscal consolidation on the level of the "Länder" have increasingly emerged, shedding light on growing debt levels of hospitals which until recently had not been priced into general government debt levels.

Health reform 2013 introduced a global budget cap for public spending on health aiming at supporting consolidation. The budget cap defines a ceiling on public health spending that should not exceed predicted annual GDP growth. It is expected that with this measure the health sector will contain spending growth in the order of about 3.4 billion Euros until 2016 (Figure 22). Of this amount and on average over the coming years federal states ("Länder") will need to contribute 60 percent, and sickness funds 40 percent.

Figure 22: Budget cap on public expenditure on health (excluding public expenditure on long-term care), nominal



Source: BMG 2012

With 3.4 billion in cost containment requirements through the budget cap the health sector contributes 13 percent to the total consolidation amount of estimated 26 billion Euros. We believe that for the well-resourced Austrian health system cost containment is reasonable as public health spending growth is expected to remain at lower than pre-crisis levels even though 2012 data show stronger growth when compared to 2010 and 2011 (Hofmarcher 2014, Statistik Austria 2014). Thus, the CSR appears very appropriate, as efforts need to be intensified to enhance efficiency in this area.

Key policy options

Any major reorganization of the Austrian health care system is a constitutional issue affecting the distribution of competencies between the federal and the regional level in addition to Social Security institutions, which are delegated important tasks in financing and in organizing ambulatory care outside hospitals. Key policy options in this context may be framed as follows.

A first option could have been to pool central government funds with monies coming from social health insurers (sick funds) at the level of the central government in the order of estimated savings, e.g. about 3 billion Euros. On the basis of "key performance indicators" (benchmarks) e.g. cost per patient, activity points per patient, cost per activity point accord-

ing to the type of hospital, these monies could be allocated through regional capacity plans (RSGs) developed by key stakeholders.

A second option could have been to pool funds and use benchmarking like in option one and simultaneously merge nationally operating occupational sick funds into nine regional funds (GKK). To ensure high quality care provision outside hospitals the central level would need to make provisions how the regional levels pool expenditure on ambulatory care. In addition the central level could encourage the "Länder" to phase in social expenditure including expenditure on long-term care, into these de-central pools. On that basis the regional level could pool expenditure for the whole range of ambulatory care provision. Governance and allocation of these monies could be done either via consolidated regional sick funds or "health platforms" on the basis of regional capacity plans.

A third option could be addressed through fiscal equalization. This could involve pooling of revenue shares of municipalities used for hospital financing on the central level and allocation of these monies to the "Länder" level via a convergence path for a nation-wide unified LKF (DRG)-payment model on the basis of "key performance indicators". This model would also benefit from a consolidated number of sick funds like the second option proposes. The de-central level would be required to adhere to central provisions to pool and allocate also social expenditure via e.g. "health platforms" which govern the process.

In preparing the Health Reform 2013 the Austrian centre-left government – re-elected in September 2013 - initially did come up with the proposal to re-arrange legal competencies for hospitals in order to create explicit political responsibilities on the federal level and to foster efficient planning and coordination. However, the central government, as has been the case with previous governments, was unable to establish sufficient parliamentary support to enact the legislation. Thus, health reform 2013 is a renewed attempt to address improved care delivery and sustainability. In particular, the rationale for reform is (1) to improve governance by further formalizing cooperation between key stakeholders, (2) to better balance service provision through defined and agreed objectives, and (3) to support key actors to adhere to objectives through the introduction of a global budget cap.

The following discusses key aspects of the Health Reform 2013 and evaluates whether proposed measures are appropriately responding to CSR 4a aiming at "*effectively implementing the recent reforms of the health care system to make sure that the expected cost efficiency gains materialize*".

Measures in the NRP – correspondence with key policy options and bottlenecks

Health reform 2013 seeks to enhance cooperation between federal states and social insurance institutions, a strategy governments pursued in the last decades, yet with modest impact (Hofmarcher 2010, European Commission, 2012, Court of Auditors 2013, Hofmarcher 2013). While further formalization of cooperation through newly defined impact-oriented contracts between key stakeholders is important more could have been done even in the current administrative environment (see 3.3.2).

Health Reform 2013 defines five goals to improve health care delivery. These goals and corresponding measures will be evaluated in 2017 in agreement with the impact assessment framework as foreseen in the new budget law introduced in 2013. In order to successfully fulfill its objectives, health reform embedded a global budget cap for public health care expenditure growth until 2016 (Figure 1). Health Policy approaches in the 2013 Austrian coalition programme largely reiterates measures defined in the 2013 health reform package, for details see Hofmarcher 2013a. This includes admitting to implement health goals and "health in all policies", and making targeted health promotion and prevention a guiding principal to improve health expectancy where Austria falls short in comparison with other EU and OECD countries (Gönenc et al 2011). Health reform 2013 has a number of advantages.

First, it addresses the importance of fiscal sustainability in response to global challenges resulting from crisis-driven consolidation efforts and to repeated claims to produce health sector specific forecasts of expenditure (Gönenc et al 2011). For the first time the current framework contains details about data needs and mandates data collection to define a fiscal envelope of public expenditure of health. This will allow close monitoring of the performance of the health care system in a more comprehensive way by centralizing reporting and the definition of data standards for reporting.

Second, the reform links sanctions of non-compliance to global fiscal rules (e.g. national stability pact). In order to monitor compliance to regional health plans federal states are required to adhere to the fiscal stability pact. An updated pact came into operation in 2012 applying a set of new and old fiscal rules to reach fiscal targets as imposed by the EU. Compliance with these targets will be closely monitored in the context of the European Semester and since cost containment through the health sector budget cap is priced into the consolidation path adherence will also be closely monitored in this area.

Finally, the reform aims at right-size supply to ensure safe care in adequate settings. While this has been an important objective in previous initiatives as well the current framework stipulates details and measurable indicators to monitor progress in this area. Importantly, the introduced budget ceiling is expected to leverage the implementation of the Austrian Structural Plan (ÖSG), which is defining for corresponding regional plans (RSGs).

While these positives point to the potential of the reform, challenges regarding the implementation and effectiveness of measures remain:

First, instruments for better governance overlap and diverge at the same time. With the set-up of new multi-stakeholder commissions (Bundesziel- und Landeszielsteuerungskommissionen) new administrative layers to "govern by objectives" are introduced in addition to the current structure (for details see Hofmarcher 2013). However, it is unclear how and if these instruments will work together to ensure congruent impact. Further, adherence to fiscal rules at the level of federal states has often been limited in the area of hospital operation in particular as sanctions in prior fiscal pacts were never applied even though federal states violated or often exceeded infrastructure targets, e.g. reduction of the number of hospital beds.

Second, the framework does not provide for an overall shared vision with regard to innovative ambulatory care delivery models, in particular to payment schemes. The variety of different payment systems and benefit packages within individual sectors clearly contributes to imbalances in provision. As a result, the development of the outpatient sector is lagging behind and coordination of care is often poor. This applies not only to the crossover of inpatient and ambulatory care but also to coordination between different levels of ambulatory care, between acute inpatient care and long-term care, and between physicians and other healthcare professionals.

Third, the legislation lacks details with regard to concrete monitoring indicators. For example, strategic financial goals have not been translated into operative objectives and subsequent actions and measures. Further, targets for the few real indicators e.g. admission rates and the number of day care cases mentioned in the legislation are only moderately ambitious. For example, the level of acute care admission rates currently at about 27 percent and very high by international standards - are expected to be down to 25 admissions per 100 persons in 2017, see Table 2 for details about measures proposed.

Finally, the key dilemma in health and social policy remains, namely which stakeholder is the "best complimentary agent" for patients. Institutions and measures of this reform reflect the inability of government(s) to change the constitution to allow for more rational task sharing. While most other countries are also plagued with administrative fragmentation, the particularity of the Austrian health care system nevertheless would have allowed moving reform even within a "second best status quo" further (see 3.3.2). For example, this could have involved targeted cross-stakeholder cooperation by mandating pooling of real money and disbursing these monies according to key performance indicators (see policy options above). In parallel, it would have been necessary to harmonize the landscape of social health insurance that is characterized by fragmented benefit packages and payment schemes and importantly by overcapacity. To achieve progress it will be necessary to have a committed government, which is capable of showcasing administrative reform by prudently changing stakeholder and financing relations.

Health and social policy approaches in the 2013 Austrian coalition agreement

While health policy approaches in the 2013 Austrian coalition programme largely reiterates measures defined in the 2013 health reform package, it further stipulates that tax-funded subsidies for health insurance will be kept in spite of balanced budget sheets. In concert with the envisaged prolongation of the fiscal equalization legislation for another two years where in 2008 provisions were made that hospitals receive 100 million Euro annually in addition to defined revenues shares the health sector remains well endowed with resources. To address risk factors taxes on alcohol consumption and tobacco will be increased which likely favors better-off groups. There is no explicit mention of a strategy to enhance the evidence base on potential links between material and health inequality, an area where Austria needs to catch-up. The programme confirms to further promote long-term care services rendered at home. While needs-based cash benefits are the most important financing pillar in this area,

income and asset tests remain key when nursing home care is utilized. Main issues in ensuring needs-based and graduated provision of long-term care services with the aim to enhance choice and services for improving independent living involve:

- implementing the long-term care fund to support nursing homes but also aiming at building balanced capacity for mobile services and day care provision
- establishing Ambient Assisted Living programmes focusing sustainable implementation
- extending and further promoting 24h care at home which includes a legal separation of service providers and agency offering the services.
- establishing of a "dementia strategy" until the end of 2014 and securing a general rehabilitation strategy so that the pension fund offers those services to all in 2015.

ANNEX

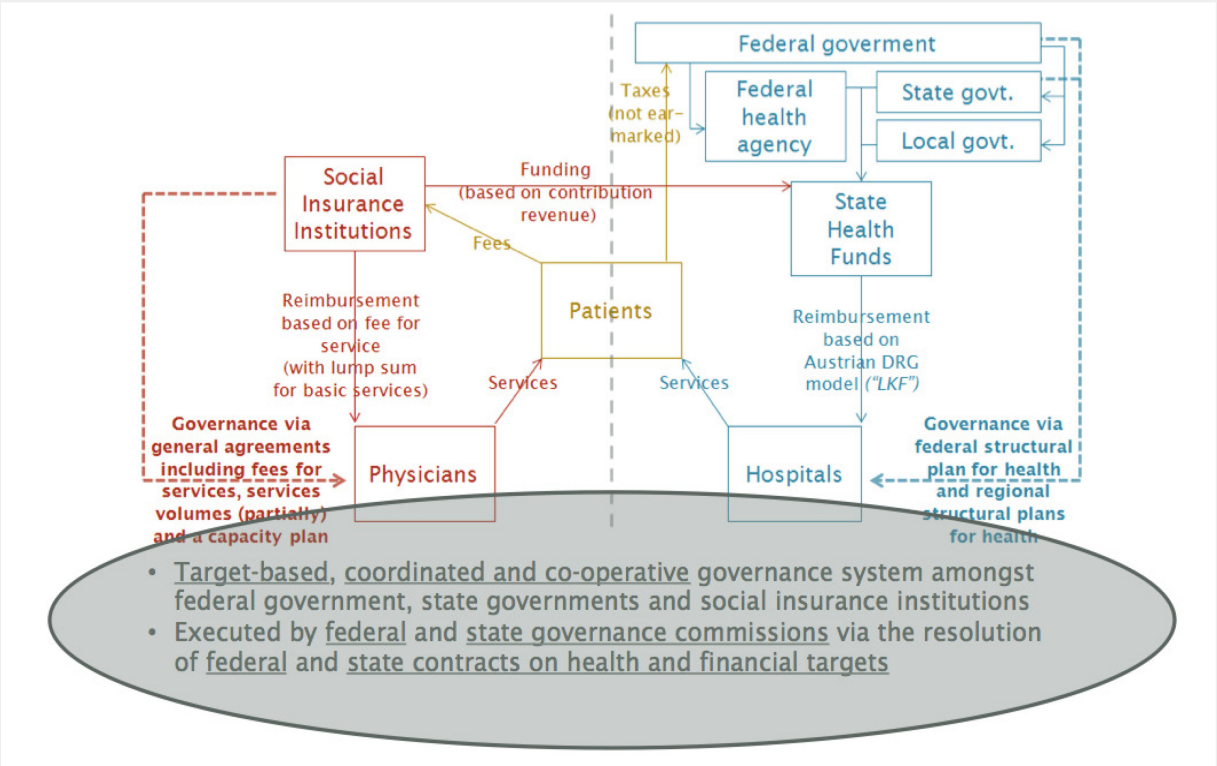
Box : Key approaches in the health reform 2013

The 2013 health reform has three major elements: (1) the creation of institutional capacity for the effective realization of the coordinated and co-operative governance system ("governance by objectives"), (2) the specification of key areas of the governance system (structure of provision, process of care, health targets), and (3) the definition of accounting standards for these areas at the federal and regional level to better enable adherence to the budget cap.

Institutional capacity for "governance by objectives"

In June 2013, the newly established "federal commission on health system governance by objectives" ("Bundeszielsteuerungskommission") approved the first federal contract on health and financial targets for the period 2013 to 2016. This federal contract sets the standards for the subsequent regional contracts, which must be approved by the regional governance commissions ("Landeszielsteuerungskommission") at the end of September 2013. Overall, the federal contract defines 12 strategic goals assigned to 4 key areas of health system governance. These key areas are (1) the structure of provision, (2) the process of care, (3) health targets and (4) financial targets. The core of the federal contract is a detailed catalogue of specified 26 operative objectives and defined actions to be taken in order to achieve strategic objectives. Every objective within the catalogue is specified, including the definition of actions to be taken as well as measures and target values in order to facilitate the effective evaluation of overall attainment of the set objectives.

Figure 23: Health Reform 2013 aims at building strategic capacity for "better" care through moderating the accountability divide



Source: Ostermann 2012

Health reform 2013 aims at building more primary care capacity

As key stakeholders of the newly established commission of "governance by objectives" the federal government, regional governments and social insurance institutions agreed by 2016 to implement (1) enhanced primary care models with at least 1 percent of the population being served by such models, (2) the establishment of at least 2 multidisciplinary ambulatory outpatient care centers and (3) specific targets to increase the share of day cases for specified interventions, e.g. cataract surgery or hernia surgery. Moreover, the federal contract sets targets for regional ambulatory care providers regarding opening hours in the evening and on weekends as well as targets for reducing hospital admissions and average length of stay, both of which should lead to a reduction of hospital beds. While previous initiatives to improve primary care capacity (e.g. the 2005 "reform pool" and group practice legislation of 2010) had similar objectives, corresponding federal regulation to achieve the objectives was missing or too weak. The federal contract and subsequent regional contracts may succeed in closing this gap by setting clear standards of cooperation between sickness funds and "Länder".

Roll-out of discharge management and standardization of diagnostics through e-health

The federal contract schedules (1) the implementation of standardized hospital admission and discharge management, (2) the definition and launch of disease management programmes and other forms of better coordinated care for common and/or chronic diseases and (3) the establishment of a commission promoting the rational use of pharmaceutical

products encompassing both in- and outpatient care, as well as (4) the establishment of a telephone-based health advice and information service by the end of 2015. While the government has made progress in implementing electronic health records in Austria (ELGA) in recent years, participation of physicians as well as patients in the disease management programme on diabetes still falls short of expectations (Hofmarcher 2013). Thus the renewed commitment to better chronic care management is a timely measure to improve health outcomes regarding both improved quality of life and premature mortality.

Health indicators should help monitor outcomes

The federal contract defines (1) the regular measurement of health indicators, also on a regional level, (2) the comprehensive adoption of health technology assessments not only for the provision of specific health services but also for health promotion and prevention programmes and (3) instructs the development of outpatient quality indicators by the end of 2014. The contract also stipulates the enhancement of health literacy of the population. Monitoring of health outcomes has become an important area on the policy agenda as Austria is committed to improving population health by providing for a gain in two healthy life years by 2020 following the EU 2020 strategy (Hofmarcher 2013). Austria needs to catch-up in this area as results from a recent study suggest (OECD 2010).

The budget cap should leverage the achievement of the objectives of the health reform 2013

Financial targets represent another key area of the health governance system. In contrast to the first three areas, however, the identified strategic goals have not been translated into operative objectives and subsequent actions and measures. While the budget cap is the defining envelope for helping to achieve reform objectives and is in addition part of an overall government consolidation programme, it is intended to support action in all of the defined key areas of the reform. Thus, the budget cap is not a means to an end but rather the overall rationale for "governance by objectives". Consequently, the federal contract provides for standards on how to calculate the budget cap in detail and sets further standards to compensate agreed shifts of defined services between sectors. In order to safeguard the implementation of targets and overall objectives, the federal contract also includes detailed regulation for monitoring and reporting, distinguishing between (1) monitoring of the actual health expenditure as compared to the defined budget caps, (2) monitoring of the attainment of the financial goal based on bi-annual forecasts and (3) monitoring of the actions and measures as put forward by the operative objectives in the defined key areas.

3.3.2. Long-term care

Develop a financially sustainable model for the provision of long-term care and put a stronger focus on prevention, rehabilitation and independent living

Background – is the CSR appropriate?

In Austria, the responsibility for long-term care is divided between the federal government, the nine federal provinces (Bundesländer) and the persons concerned, including their families. Calculations have shown that the costs of long-term care are roughly equally distributed

between the persons concerned (and their families) and the public sector (Mühlberger et al. 2008b). The federal government provides long-term care allowance (cash benefits) to persons that are in need of constant (at least 60 hours per month) long-term care for at least 6 months. At the end of 2012, more than 440.000 (i.e. 5.2 per cent of the Austrian population) received (non-means-tested) cash benefits in Austria (between 154 and 1,656 Euro per month depending on the level of care needed (7 categories). In 2012, the public expenditures for long-term care allowance were 2.6 bn Euro (including administrative costs). The federal provinces and the local authorities, in contrast, are responsible for providing mobile, semi-residential and residential care services that are mainly contracted out to social organisations and social funds.

Projections of long-term care costs of the public sector until 2030 show substantial increases (Mühlberger et al. 2008a). For instance, projections of long-term care allowance recipients show an increase of more than 40 per cent between 2012 and 2030. Even higher increases are to be expected between 2030 and 2050 when the baby boomer generation of the 1960s interacts with low fertility rates since the mid-1970s. This increase of elderly people goes along with a decrease of informal care by family members as female labour force participation is expected to increase and household structures are changing towards smaller households. As a consequence, the demand for formal care and thus the demand for care personnel will increase.

Main challenges in the area of long-term care concern firstly the rising public costs and secondly the labour market conditions in the long-term care sector. There is a high fluctuation of personnel within the care sector since labour market conditions are problematic (e.g. low wages, long hours, psychological stress). Thus, the questions of how to increase the supply of qualified care workers by improving the working conditions and wages has to be addressed. While the question of financing long-term care has been included in the country specific recommendations, the problem of the shortage of care workers has not.

Key policy options

Key policy options to tackle the challenge of increasing costs are to further finance long-term care through general taxes and to prolong the period of financial commitments for the recently installed care fund in order to increase the planning reliability for the federal provinces to provide care services.

Key policy options to improve the labour market conditions of the care sector in order to increase labour supply refer to higher wages through collective agreements, improvements in training, measures to qualify more people to work in the care sector (including migrant workers, unemployed people, men) and measures to give care service workers more possibilities to move to higher qualified jobs by further training.

Correspondence of measures in NRP with CSR

The following discusses recent legal developments in the care sector and evaluates whether these measures are appropriately responding to the CSR aimed at developing a financially sustainable model for the provision of long-term care and at putting a stronger focus on prevention, rehabilitation and independent living.

Long-Term Care Allowance Reform Act (Pflegegeldreformgesetz 2012 BGBl. Nr. 58/2011)

Prior to this reform long-term care allowance was granted by more than 300 different administrative bodies both at the level of the federal provinces and at federal level on the basis of the Federal Long-term Care Allowance Act and nine long-term care allowance acts by the federal provinces. This led to heterogeneous results in terms of the duration of long-term care allowance proceedings as well as medical assessment procedures. The Long-Term Care Allowance Reform Act 2012 simplified the long-term care allowance system in Austria, reducing the number of administrative bodies to 7 and transferring the executive and legislative powers from the federal provinces to the federal level. Moreover, the act contributed to unifying the administration of long-term care allowances across Austria. Since the beginning of January 2012 a single form of assessment is used for all cases in Austria, for instance.

Care Fund Act (Pflegefondsgesetz BGBl. I Nr. 57/2011)

The recommendations of a reform working group on long-term care in 2007 and 2008 led to the establishment of a care fund in 2011. The working group criticized the lack of a medium-term financial framework for the federal provinces to provide and expand care services as well as the lack of transparency of care service costs of the federal provinces. The Care Fund Act established an administrative fund aimed at financing care benefits in kind and at further developing the supply of care arrangements of municipalities and the federal provinces. The financial endowment – two thirds of which are paid by the federal level and one third by the federal provinces – was negotiated with the federal provinces and calibrated with forecasts of care costs. The Care Fund's main goal is to ensure the supply of affordable care services according to the need of an aging society, but also to support the existing care services such as mobile, semi-residential, residential long-term and short-term care services, alternative living arrangements and case- and care management. However, there is priority given to measures outside residential long-term care services. The Care Fund Act furthermore defines common quality criteria to pursue the goal to gradually harmonize the quality of care services across Austria. The care fund has been endowed with 685 Mio Euro for the years 2011 to 2014 and additional 650 Mio Euro for 2015 and 2016 (the later on the basis of the amendment to the care fund act (BGBl. I Nr. 173/2013)). The amendment also brought some changes on substance: for instance, it facilitates innovative projects and care quality control measures. Furthermore, it introduced a common supply rate for care services across Austria. The supply rate is the rate of persons that receive care services in a federal province out of all persons

that receive care allowance in the respective federal province. Between 2014 and 2016 there is the target to increase the supply rate to 55 per cent in each federal province (2013: roughly 50 per cent), although the actual care arrangements follow regional needs. Finally, the amendment to the Care Fund Act increased the federal provinces' flexibility of using the fund.

Care Services Statistics Regulation 2012 (Pflegedienstleistungsstatistik-Verordnung 2012, PDStV, BGBl. II Nr. 302/2012)

Until recently, there was a significant problem with obtaining comparable data on long-term care services across Austria: Every federal province followed its own definitions, classifications and specifications of long-term care services. The Care Services Statistics Regulation aims at a harmonization of collected data, generating valid data in the form of a "care services database" (Pflegedienstleistungsdatenbank). This database establishes common definitions and classifications of various care services, increasing comparability and transparency of care services across Austria. However, the quality of data is still very heterogeneous.

Amendment to the Labour Law Act 2013 (Arbeitsrechts-Änderungsgesetz 2013, BGBl. I Nr. 138/2013)

From January 2014 onwards, caring relatives have the possibility to take a (one to three months long) leave of absence or work part-time and receive a (part-time) allowance (Pflegekarenzgeld) that equals unemployment benefits (55 per cent of last daily net income, but at least the amount of the marginal earnings threshold (2014: 395,31 Euro). For the duration of the allowance beneficiaries enjoy increased employment protection. Insurance contributions to pension and health are paid by the public authority and employees who receive the allowance are entitled to severance payments. Relatives that engage in hospice care also have the possibility to take leave of absence and receive care allowance up to three months with the possibility to prolong for another three months (up to five months plus 4 months prolongation for hospice care if the relative is a child).

Results of the reform working group "Care" (Reformarbeitsgruppe Pflege)

In 2012, the Federal Ministry of Labour, Social Affairs and Consumer Protection (BMASK) installed the reform working group on long-term care. Participants from the BMASK, interest organizations, medical associations, social insurance institutions, the Ministry of Health, senior citizens associations, care providers, care workers and employers produced a list of recommendations that are the basis for future decisions on long-term care policy. These recommendations focus on following issues: (1) the further development of long-term care provisions, (2) improvements for caring family members and (3) human resource development. Main points of the recommendations are:

- further developments to harmonize long-term care across Austria

- stronger focus on ambulant and mobile care
- implementation of quality control measures
- comprehensive case-care management
- further development of hospice and palliative care (especially for children)
- early detection of dementia
- development of tools to increase the mental fitness of patients with dementia
- prevention and rehabilitation to prevent or delay the entry into a nursing home and to increase health among patients in nursing homes
- increasing employment protection of caring relatives
- subsidies for age related renovation work for apartments and houses
- further development of the concept of "Ambient Assisted Living"
- measures to qualify more people to work in the care sector, to increase the quality of the training and the willingness and ability to work in the care sector.

There is a broad agreement to continue to finance care expenditure by general taxes (in contrast to long-term care insurance contributions).

The government programme 2013-2018 which was released in mid-December 2013 includes many of the measures recommended by the reform working group of long-term care. It puts a strong focus on mobile and day care, promoting a life at home as long as possible. Another focus concerns prevention and rehabilitation: a "dementia strategy", to be developed until the end of 2014, shall increase the rate of early diagnosis and support caring relatives. A "comprehensive rehabilitation strategy" shall insure that social insurance includes rehabilitation measures for the elderly. However, the government programme does not give details on how to ensure a financially sustainable model for the provision of long-term care. On the other hand, the coalition government confirms its resolution to continue to finance expenditures for long-term care through general taxes.

To conclude, recent developments in long-term care policy and the plan of the new government in Austria go in the right direction towards the recommendations made by the European Commission. However, in order to better promote prevention, rehabilitation and independent living the two separated political areas "health" and "long-term care" need better coordination in order to create positive spill-over effects. Austria's demographic development causes the cost of long-term care to increase. In that respect, financing long-term care through general taxes is economically advisable. However, in order to increase the planning reliability for the federal provinces to provide care services, financial commitments have to be made for longer intervals than is actually the case. Still too little attention is paid to improve the working conditions in the care sector to attract more people willing to work in the sector. Finally, the regional differences of care services across Austria will have to be addressed by the public authorities.

3.4 Education

3.4.1 Higher education

"Further improve strategic planning in higher education and enhance measures to reduce dropouts."

Background: is the CSR appropriate?

Most of this has already been discussed above in section 2.2.2. In principle, improving the Austrian higher education sector can certainly be seen as a problem to be tackled in priority by the Austrian authorities. Both issues of quantity and quality, regarding teaching and research, hold Austria back relative to its potential and relative to some of Austria's peers such as Sweden or Switzerland. However, it is not entirely clear to which underlying economic problem the CSR refers, as the strategic planning exercise for the higher education sector is a multi-faceted process. One problem is certainly drop-outs and high student-teacher ratios, which the higher education planning exercise is addressing through the implementation of capacity-based university funding based on actual student enrolment. If the CSR refers to this, it is certainly appropriate. However, the strategic planning exercise also includes elements which may not be of high priority and which may not contribute to improving higher education in Austria, such as the strategic coordination of research and teaching portfolios which may diminish competitive incentives for increasing quality. There is thus a clear need for the European institutions to clarify their CSR as regards the strategic planning.

Key policy options

Key policy options have been discussed in terms of increased funding and reducing drop-outs from university. Giving universities basically the same rights as the Austrian universities of applied sciences (Fachhochschulen), i.e. the right to select students and to select only as many as are compatible with high teaching quality, while overall increasing the number of graduates, would certainly be a major step forward. Once universities can select a limited number of students, relations between universities and students could fundamentally change, allowing for more tailored and targeted coaching of students so as to avoid drop outs. Moreover, students from socially disadvantaged backgrounds could be specifically targeted in such a system, explicitly addressing concerns in Austria that such a system would lead to fewer students from poorer backgrounds. Note that the current system of open access in most study fields has however not led to a marked increase of poorer students, mostly because the Austrian school system performs a selection at the age of 10 into a vocational and an academic track. However, open access also does not allow for specific targeting of potential students (akin to "affirmative action").

Measures in the NRP – correspondence with key policy options and bottlenecks

As already discussed, a new funding model is implemented at the moment which would address key policy options. The funding model will be implemented over several years and it remains to be seen whether it leads to a fundamental change in the number of drop outs and to an increased share of tertiary graduates. Moreover, current funding plans for higher education, again as discussed above, make it unlikely that student-teacher ratios will be substantially lower, while at the same time internationally competitive research is also a goal of universities. Flat funding for the years after 2015 could threaten progress achieved so far.

All in all, this CSR is currently partially addressed.

3.4.2 Primary and secondary education

"Improve educational outcomes, in particular of disadvantaged young people, including by enhancing early childhood education and reducing the negative effects of early tracking."

Background: is the CSR appropriate?

Although Austria has already reached the EU-2020 target concerning early school leavers a closer look reveals that especially students with migration background show much higher drop-out rates than other students. Fostering early childhood education is very important here, since e.g. disadvantages in language proficiency must be tackled from early ages on in order to help concerned students to successfully remain in the schooling system and improve educational outcomes. Thus, the CSR addresses a very important issue that should be taken seriously.

Key policy options

As regards early school leaving, socio-economic background has a strong influence on achievement in the Austrian education system, and pupils from a disadvantaged background face a much higher risk of dropping out or having poorer reading skills than their Austrian peers. A particular challenge is to unlock the potential of the young with a migrant background, since achievement gaps compared to native peers are amongst the highest in the EU. Key policy options are improving the overall quality of the education system – from pre-primary education up to the lower secondary system, giving specific advice and coaching to vulnerable students and lower achieving students and making sure pupils get a second chance. Examples of school-level factors that maintain lower achieving students are small class sizes, peers´ success and teacher quality (see e.g. OECD, 2011).

Correspondence of measures in NRP with key policy options and CSR

This CSR is highly related to the national education target to reduce the number of early school-leavers and improve educational outcomes. All issues addressed in the national target are also relevant here. At the same time this CSR is highly interacted with the employment target, as many measures listed there are related to educational measures.

- Improvement of educational outcomes among disadvantaged young people

The National Reform Programme lists some new measures in this context that aim at preventing truancy and expanding full-day school forms.

- Improvement of early education

The NRP addresses this issue by continuing the requirement to attend institutional child-care facilities free of charge. The current government programme plans the extension of cost-free child-care to two years, which is appreciable in order to address potential disadvantages before entering the schooling system.

- Mitigation of negative consequences of early differentiation of potential/achievement

No measure aims at reducing the negative effects of early tracking. This is very regrettable since the negative effects of early tracking are well established and therefore should be one key aspect of a well designed education policy.

Overall the NRP addresses parts of the CSR – especially the expansion of full day school forms or educational standards are important aspects in improving educational outcomes. However, early tracking, a key bottleneck in the Austrian School System, is not addressed.

3.5. Competition and Regulation

"Further strengthen the powers and resources of the federal competition authority and monitor the implementation of the competition law reform. Remove excessive barriers for service providers. This includes reviewing whether existing restrictions on entry and conduct in regulated professions are justified by general interest and fostering competition notably in the railway sector."

Background – Is the CSR appropriate?

Cost efficient and high quality services are vital for trade exposed manufacturing, especially in small open economies like Austria where the OECD-WTO Trade in Value-Added (TIVA) indicators confirm that service inputs account already for 50% of the gross value added of Austrian exports. Since professional services play an important role in the business service mar-

kets, accounting for 10 % of GDP and 11 % of total employment, adapting service sectors to a more competitive environment is an important prerequisite for economic success in the future of a globalized world economy. Despite some improvements, restrictions on gaining access to and practicing professions in the services sector, e.g. as regards the legal form and shareholding requirements, persist. There is a strong case for assessing just how justified these restrictions are and if the same public interest objectives cannot be reached with lighter regulatory regimes.

With the substantial amendment to the cartel law in 2002 (and its consecutive amendments in 2005 and 2013), a new institutional basis had been developed for competition policy in Austria. Responding to domestic and European pressure to reform, legislators provided the groundwork for setting up the Federal Competition Authority (FCA) as central independent government agency entitled to take investigative action in antitrust cases, thereby directing Austrian competition policy into the proper channels of institutional professionalization. While the scope of duties and competences and were broadened in stages, concerning resources the FCA remains, however, in a challenging situation. Despite the fact that recent changes in competition law will strengthen the powers of the FCA at least in partial aspects, its financial and human resources are still below the levels observed in economies of a similar or even smaller size. Since its inception in 2002 neither the performance of the FCA nor the implementation of the competition law reform have been systematically monitored and evaluated which complicates a serious appraisal of the effectiveness of the Austrian antitrust regime.

The sheltered character of service sectors in Austria and its negative impact on productivity is well documented *(OECD 2007, 2009, 2013C)*. More recent analyses further emphasised the links between market structures and service productivity in neighbouring Germany *(Coricelli – Wörgötter 2012)* and the same indicators confirm that this type of gaps exist in Austria. Services are less exposed to international competition than manufacturing (with the exception of specific sectors such as tourism and financial services) and many service activities have long been regulated in competition unfriendly ways *(OECD 2007, Janger –Schmidt-Dengler 2010)*. Despite regular explicit recommendations to converge regulatory framework for services with pro-competitive international best practices *(OECD 2013C)*, only limited concrete progress has been achieved in recent years. The adoption of a "Services Act" *(Bundesgesetz über die Erbringung von Dienstleistungen)*to implement the EU Services Directive in Austria five years after EU legislation has become effective, is a delayed but nevertheless still an important leap forward to a more competition friendly environment for the provision of services. Whether the intended outcomes will become manifested, has to be monitored.

In contrast to the assessment of limited competition in the service sector the prevailing restrictions to competition in the Austrian railway sector have to be put into perspective. According to the latest edition of the European „Rail Liberalisation Index" study *(IBM GLOBAL BUSINESS SERVICES – Kirchner, 2011)* which assesses the opening of the rail markets in the EU, Switzerland and Norway, Austria belongs to the group of countries of advanced market opening in the sector. Austria along with Sweden, the UK, Germany, Denmark and the Netherlands has

"made considerable progress in terms of the degree of market opening achieved compared with the other European states" (ibid, page 10). Legal as well as market entrance conditions show a comparably high level which is confirmed by a comparably big number of non-incumbent railway companies in service and their good market share from a European perspective. The authors of the study claim that the ongoing market opening process in Austria which started after the national implementation of the 1st railway package of the EU (2001) has contributed to a far reaching operational network access and smooth regulatory processes.

For commercial national as well as international rail transport open access applies whereas access to cross-border services and national segments of cross-border routes may be restricted if this is assessed by the regulatory body as an impairment of the economic equilibrium of transports provided under a public service contract ("Gemeinnützige Leistungen"). Domestic freight transport in Austria is quasi entirely liberalized, the only exemption are transports of hazardous materials and combined transport where public subsidies can be applied for. In contrast, passenger transport – as in most other European countries – is still more regulated, in particular in respect of con-commercial services. Public service contracts have been awarded directly to the incumbent ÖBB (and few other companies) without tendering. The Austrian federal government, regional as well as local administrations subsidy around 70 million passenger train kilometers – of which more than 80% is of local and regional character. In 2011, ÖBB Personenverkehr held a share of more than 90% of train kilometers under public service obligations (PSO). The quality and transparency requirements concerning the PSO rules were tightened in 2011 following the European Regulation (EC) No 1370/2007 which deals with the operation of services of general economic interest with respect to the rules on competition. The new national regulation on PSO for rail services authorizes the body legally responsible for the negotiation and monitoring of the PSO (SCHIG) to more exactly define and enforce the contracts concerning the scope and maximum distortion of services as well as quality management.

The Liberalisation Index study describes the Austrian regulatory bodies (Schienencontrol Kommission (SCK) resp. Schienencontrol-Gesellschaft (SCG)) as independent as well as specific institutions with wide ranging powers and competences. The Austrian rail regulator SCG conceives itself as a successful mediator in conflicts between railway companies and the infrastructure provider which takes care of correct decisions and the enforcement of measures within cases of dispute (SCG, 2013). The Austrian legislation explicitly emphasizes SCG as a body to increase the railways' share in the transport market and has given SCG early extended competences (such as the right to monitor the market since 2006). The Federal Competition Authority (FCA) has in principle similar competences as the SCK/SCG whereas the latter are the specific regulators mainly dealing with network access issues. The main task of the FCA within the rail regulation is to deal with complaints concerning pricing and restraint of trade which does not touch the network provider (ÖBB Infrastruktur).

In the light of the above mentioned study on the liberalization within the European rail market, "excessive barriers for service providers" aiming to enter the Austrian market should be put into perspective and/or cannot really be identified. Among comparable European countries, Austria had a considerable market share held by the non-incumbent companies in 2011 (passenger: 6%, freight: 14% of passenger/ton kilometers) *(IRG Rail, 2013)*. These market shares – especially the one in freight – are not as high as in countries where the importance of "block trains" is bigger than in Austria (e.g. Germany or France). However, the dominating single wagon load traffic in Austria which requires a logistic system which is so far only provided by the state-owned and subsidized ÖBB is one of the reasons why the environmentally preferred great modal share of rail exists.

The study on rail liberalization concludes for Austria that "external RUs [rail companies] find favourable access prerequisites in Austria, the processes and decisions are transparent and comprehensible, both in applying for licenses and safety certificates, and in train path allocation procedures" *(IBM GLOBAL BUSINESS SERVICES – Kirchner, 2011, 76)*. Barriers for private companies to enter the Austrian rail market exist partly in terms of administration (time and costs for being granted safety certificates).

Key policy options

As explicit goals are not formulated, key policy options cannot easily be derived. Hence we concentrate on the key challenges concerning competition and regulation as stated in the CSR 6.

Competition intensity is usually found to be comparably low in Austria, especially in sheltered services sectors, whereas the manufacturing sector faces tough international competition in many industries *(see e.g. Janger – Schmidt-Dengler, 2010; Janger, 2008)*. The actual NRP concentrates mainly on the reformed competition law authority and mentions the implementation of the Services Directive (as well as of the Third Energy Package which is, however, not part of the CSR 6).

By several consecutive amendments to the antitrust and competition legislation in the years 2002, 2005 and 2013, the structure and competences of Austria's competition institutions was approximated to European standards, however not without maintaining some specific Austrian peculiarities.

More than a decade of practical application of the "new" legislative framework have revealed considerable opportunities for optimization and continuing development of Austrian competition and regulation policy, which have let to the identification of the following five key policy options for reform.

• **Policy option 1** − Implementation of a foresight-oriented competition policy based on transparent quantitative competition monitoring. On the basis of competition data provided by the FCA due to its new legal obligation for conducting competition monitoring, the repositioned Competition Commission (policy option 3) should publish annual reports about the

competitive situation of the Austrian economy, comparable to the main reports ("Hauptgutachten") issued by the German monopoly commission.

• **Policy option 2** − Introduction of a reversal of the burden of proof in antitrust proceedings: Since it is difficult to successfully prove market power abuse in legal proceeding, it is recommended to strengthen the competition authorities' position in abuse proceedings and substantially sharpen antitrust-related abuse control by introducing of the reversal of the burden of proof in abuse proceedings following the German example (section 29 of the Law on Restraints of Competition − GWB). This policy option is included as a declaration of intent in the working programme of the new federal government of Austria for the years 2013 to 2018 *(Bundeskanzleramt 2013, 9)*.

• **Policy option 3** − Repositioning of the Competition Commission (CC) as an independent expert panel following the example of the German monopoly commission: The CC should be repositioned as an independent expert panel that focuses on fundamental tasks relating to competition policy independently of the daily business of the FCA, following the example of the German monopoly commission. Furthermore the CC could be commissioned with a systematic evaluation of the performance of the FCA and a monitoring of the implementation of the competition law regime since its inception in 2002 thereby delivering valuable insights for policy makers for further reform.

• **Policy option 4** – Continue to relax restrictive rules in regulated trades and liberal profession to allow for more competition by removing excessive barriers for service providers. This includes a comprehensive review whether existing restrictions on entry and conduct in regulated trades and professions are justified by general interest. The working programme of the new federal government of Austria for the years 2013 to 2018 includes the establishment of a 'Commission for Deregulation' (CD) as a declaration of intent *(Bundeskanzleramt 2013, 16)*. The CD would be the right institution to prepare the foundations for policy option 4.

• **Policy option 5** – Introduction of competitive tendering in railway services. The liberalization index and other sources argue that competition in Austrian rail passenger transport might be fostered if competitive tendering is introduced for services so far delivered under public service obligations.

Correspondence of measures in NRP with key policy options

Federal Competition Authority (FCA)

The amendment of the Cartel Act and the Competition Act ("Kartell- und Wettbewerbsrechts-Änderungsgesetz 2012"; Federal Law Gazette I No. 13/2103) brought several substantial enhancements concerning the powers of the federal competition authority by 1st January 2013 by implementing …

- … stronger rules on abuse of market power (collective dominance);

- … a comprehensive approach to the punishment of cartels by eliminating the exemption of punishment for small cartels with only adverse effects on competition on the regional and/or local level;
- … more effective enforcement tools for the FCA by adopting the European standard of leniency programmes as well as allowing for self-contained measures in market investigations directly applied by the FCA without the need to embed the Cartel Court;
- the obligation to publish decision by the Cartel Court in order to foster transparency and consistency of case law

Furthermore the amendment to the Competition Act provides the legal groundwork for competition monitoring as an additional responsibility to be performed by the FCA. Legislators have, however, been sparing in prescribing any specific design leaving the operationally responsible FCA without any concrete default options concerning the design of the competition monitoring. Such leeway may be used in order to implement, by way of a uniform top-down approach in quantitative terms, competition monitoring as a pro-active ex ante detection device which allows the FCA to identify markets which due to their restrictions on competition justify an in-depth investigation *(Böheim et. al., 2006)*.

All these measures further strengthen the powers and the effectiveness of the FCA. Despite the fact that the FCA has now twice as much staff in comparison to the year of its inception (2002), it remains substantially under-staffed in comparison to other competition authorities in the European Union. This severe shortage in human resources was further complicated by the transfer of some senior staff members to newly established Administrative Courts by the end of the year 2013 leaving the FCA with the challenge to fill vacant positions with qualified staff very quickly. Due to missing career perspectives and restrictive public salary schemes it is very difficult for the FCA to attract and keep senior staff with substantial experience in competition law and economics. Comparable institutions like the electricity regulator (E-Control) and the telecommunication and media regulator (RTR) as well as the financial market authority (FMA) have much more budgetary room for offering market-oriented compensation packages.

The recent reform of the Austrian cartel and competition law was another small but important step in the right direction, but much more steps have to follow to establish a truly credible and powerful competition policy regime. As long as the Federal Competition Authority is substantially understaffed (in both qualitative and quantitative terms) most of the above mentioned tasks will not be completed due to scarce resources.

Service sector

Fostering competition in the service sector is a long-running topic for Austrian competition policy. After the adoption of the "Services Act" *(Bundesgesetz über die Erbringung von Dienstleistungen)* to implement the EU Services Directive of 2006 in Austria in 2011 the following small concrete steps toward more competition in the service sector have been realized in 2013 by several amendments to the Trade Act ("Gewerbeordnung").

By amendment to the Trade Act (Federal Law Gazette I No. 32/2012, Art. 148a) persons permitted to the trade of a dental technician under the Trade Act (Art. 94 nr. 81) who have passed through the dental technician master exam, are now allowed – on behalf of a dentist – to perform a wider range of activities (formerly exclusively reserved to dentists) as e.g. castings in the mouth of a person and to do the necessary adjusting work on these replacements.

By amendment Federal Law Gazette I No. 85/2012 to the Trade Act …

- … the amount of modules of the masters exam which can be replaced by another professional qualification has been broadened (Art. 21 Abs. 5);
- … the settlement requirement for tourist guides (Art. 108 para 2) as well as the requirement of a professional card for that trade in doing cross border services (Art. 108 para 6) was cancelled;
- … a change in competent authorities concerning procedures on recognition of diplomas according to Dir 2005/36/EC from local governors to the same authority, that is responsible for the single point of contact according to the Services Directive 2006/123/EC, has been realized.

For the trade of a professional photographer (amendment Federal Law Gazette II no 345/2012) a change has taken place in so far that certificates on an uninterrupted activity as a press photographer of at least three years allow access to this trade. This means a significant alleviation on the access in particular as press photography is a free trade without qualification requirement. In addition in Art. 150 Trade Act it has been set, that professional photographers are also being authorized to produce video films. Moreover the rights of press photographers and photo designers have been broadened, as they are now allowed to do services for enterprises, self governing bodies and regional bodies, if their photos are going to be used only for purposes of such company.

Liberal professions

Concerning removing restrictions on access to liberal professions amendments of the Accounting Law (Bilanzbuchhaltungsgesetz) and the Chartered Public Accountants Law (Wirtschaftstreuhandgesetz) have been realized resulting in the following main changes:

- reduction of the practice requirement of the accountants for the tax consultant examination from 9 to 5 years;
- extension of the powers of the accountants and payroll accountants to the drafting and consulting on matters of tax assessment for employees ("Arbeitnehmerveranlagung") and the submission to the tax authority as a messenger also electronically excluding any representation;
- increasing the accounting boundaries to the fixed features for small corporations (§ 221 UGB, Euro 4.84 million balance sheet total, € 9.68 million turnover, on average max. 50 employees);
- extension of the rights of the accountants to the representation, including making declarations for the interim VAT returns and electronic access to documents.

Railway sector

In the period 2012 - 2014 only minor regulatory or organizational changes to rail regulation in general have taken place (i.e. the dis-/reorganisation of the Schienenkontroll-Kommission after 1.1.2014 due to a reform of the Austrian reform of administrative litigation).

The Austrian transport policy has to date not used competitive tendering which is common in many other member states and which can help to save costs and increase service quality (see German example; *Brenck – Peter 2007*). The neglect has been due to partly justified, partly exaggerated concerns of weakening rail services which without doubt benefit from an integrated system of financing, infrastructure and operation. Integrated rail systems might be challenged by a more fragmentized provider structure in the sector. Furthermore, social concerns especially in respect of wage cuts in the rail industry are discussed in Austria (Arbeiterkammer Wien, 2013). It is expected that competitive tendering for non-commercial routes or networks will be introduced in Austria sooner or later recognizing the requirements and procedural steps of the Fourth Railway Package currently discussed (WIFO's view). However, an introduction of the instrument in Austria will still need and provoke a broad and qualified discussion about the adequate scope of potential regional networks prepared for tendering, administrative competences and finally, the future role as well as structure of the Austrian state railways.

Overall assessment

A lack of competition may be seen as a bottleneck for economic growth in Austria (Ederer – Janger 2010). An intensification of competition and a reduction of overshooting regulations could potentially substantially foster economic growth. Independent national measures to foster competition and deregulation to supplement EU-level requirements are necessary. The scope for an Austrian competition and regulatory policy that fosters economic growth is comparably large and could be carried out with little impact on the fiscal budget (Böheim 2013B).

All the implemented measures of the NRP 2013 are small but nevertheless important steps in the right direction of fostering competition on both the horizontal level as well as on the sectoral level of business related services. What is, however, lacking, is a bold and comprehensive approach to systematically comb through the "jungle" of competition restrictive regulations for business – especially concerning "self-overregulation" in the liberal professions as well as prevailing anti-competitive restrictions in the trade act.

For policy makers it is necessary to be able to distinguish between necessary regulations to guarantee a certain quality and security level on the one hand and competition restrictions which just keep prices for services high and thus are just promoted by certain interest groups to enhance (or at least keep) their monopoly rents on the other hand. A rigorous evaluation whether existing restrictions on entry and conduct in regulated professions and trade are justified by general interest has not been commissioned so far. Since such a comprehensive

evaluation of competition restricting regulations is not included in the NRP 2013 the efforts of the Austrian government in improving the competitive environment remained fragmented so far. To get the whole picture of restrictions to competition that are not in the public interest, but only in favour of particular groups such an evaluation exercise is absolutely necessary. On its basis the next NRP could then include bold and concrete steps towards regulatory reform.

At the moment without the necessary comprehensive fact base about restrictive regulations in trades and business services concrete advice is hardly possible. We just point briefly to the most obvious restrictions that can be found in liberal profession where despite the small steps of deregulation there is still substantial scope for leveraging competition intensity to increase productivity, e.g. fore and foremost concerning notaries and pharmacies which remained rather untouched by competition enhancing deregulation so far (Böheim – Pichler, 2011).

The inclusion of the foundation of a Commission for Deregulation in the form of a (vague) declaration of intend in the working programme of the new federal government of Austria for the years 2013 to 2018 has to be appraised as positive signal in this respect. It remains to be seen which concrete steps are really taken in the near future in order to make an appropriate impact assessment.

Despite this undeniable progress concerning the development of competition law and its application to concrete cases by the competition authorities, human resources the FCA could still profit from a higher number of competent senior staff with substantial experience in competition law and economics to effectively handle its increasing workload. To master this challenge it will be certainly not sufficient to just take steps *"to modernize the organizational structures of the FCA"* as mentioned in the working programme of the new federal government of Austria for the years 2013 to 2018. What is needed in this respect is the development of a comprehensive master plan for human resources for the FCA including competitive remuneration and career perspectives for staff members. Cost increases referring to this matter should be covered by the federal budget which had received cartel fines of approx. 118 Mio. € since 2002[44] –- making up the equivalent of nearly 50 times the actual annual budget of the FCA. In terms of competition advocacy the dedication of cartel fines for the FCA – a small fraction would be sufficient for the improvement of salary structures – is a superior measure to the devotement for consumer organizations as mentioned in the recent governmental working programme.

The Introduction of a reversal of the burden of proof in antitrust proceedings against energy suppliers is included as a declaration of intent in the working programme of the new federal government of Austria for the years 2013 to 2018. This is a reasonable and important step towards a more effective antitrust regime for the energy sector taking the German legislation as an international best practice (Böheim 2008).

Another absent measure is a pro-active competition strategy which also looks at competition from the consumer side, by examining determinants of switching rates between suppliers

[44] http://www.bwb.gv.at/Fachinformationen/Bu%C3%9Fgelder/Documents/Geldbussen%20gesamt%20Stand_01_2014.pdf

(such as price transparency, consumer information etc., cf. e.g. Böheim, 2013A, 2013B, Janger, 2010; Böheim et.al., 2006). A repositioned Competition Commission that serves as a politically and an institutionally independent expert panel following the example of the German monopoly commission could build the anchor and act as a credible promoter of this pro-active competition strategy.

4. Summary

4.1 Overview of all targets

This chapter provides an assessment of Austria's progress towards all key targets based on statistical trends only, without taking into account the measures of the NRP. Section 4.1 summarises the target values and normalises current values according to their distance to the target value. As outlined in the individual discussions of the targets, early school leavers and the share of tertiary graduates have already reached their target. Employment and renewable energies are well on track to meet their targets. With the exception of poverty[45] – the R&D target is furthest away from its target value and unlikely to meet it, either. This is due to private funding of R&D lagging behind target, whereas public funding is on track. For greenhouse gases, long-term growth trends are not favourable. Should economic growth also pick up again, greenhouse gases may be unlikely to reach their target. Energy efficiency relates to an indicative target; it is also different to the others, in that it should stay at the same level rather than increase. Of course, these target projections may change due to severe economic crisis, in particularly as regards poverty and employment.

Table 15: Overview of all targets: actual values relative to target and target forecasts based on past growth trends

Indicator	Target	Actual values relative to target (target value = 100)	Target projection 2020 (based on last year's growth)	Target projection 2020 (based on growth rate 2000-2013*)	Target projection vs. target (target = 100)
R&D ratio	3.76	76	2.91	3.34	89
Share of population aged 30-34 with tertiary education	38	101	52.72	48.09	127
Early school leavers	9.5	0	3.76	6.16	154
Employment rate (20-64)	77-78	97-98	78.80	79.36	102
Number of individuals living in poverty or at risk of poverty	-235,000	92	181000	-122429	52
GHG emissions in Mio t CO2	47.7	86	40.17	49.90	96
Renewable Energy Share in %	34	95	44.20	41.69	123
Final energy consumption as total final consumption in PJ	1100	100	1040.44	1079.02	102

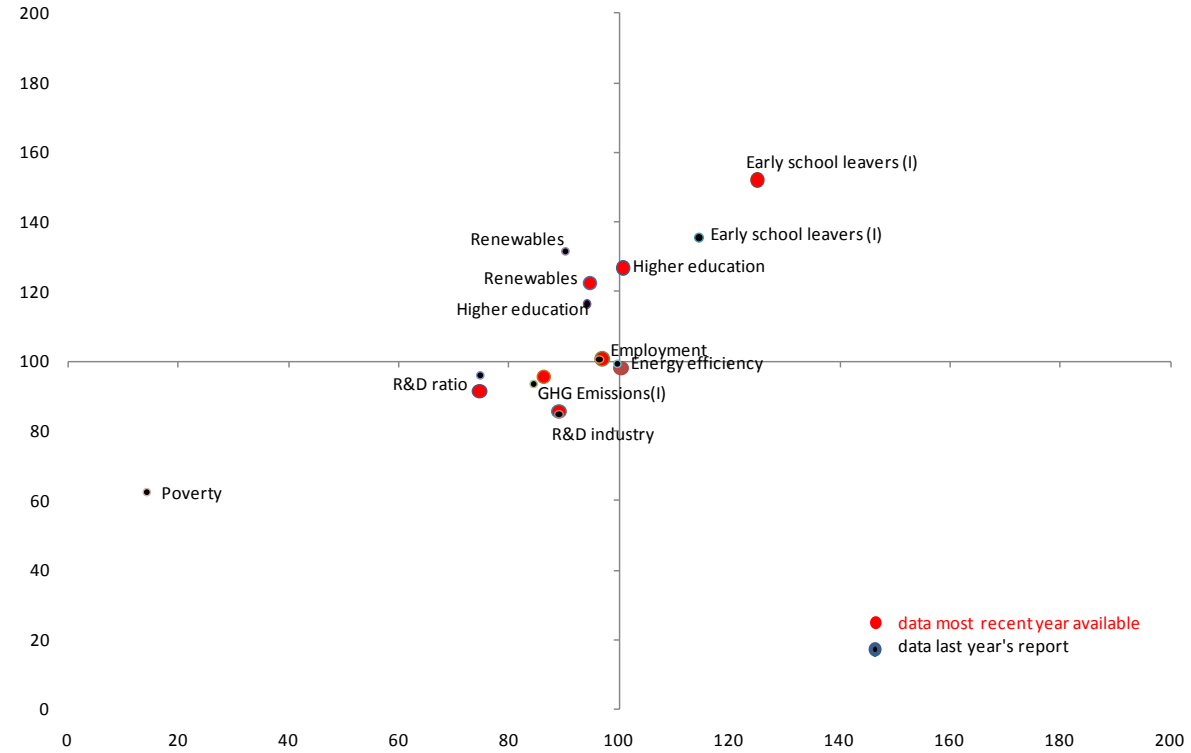
Source: WIFO. *Growth rates are based on 2000-2013 or according to data availability, see the discussion of the individual targets.
Note: Due to a break in the time series no value for the poverty target in 2012 is reported

Figure 24 provides a graphical illustration of the distance to target shown on the horizontal axis and of the probability of reaching the target shown on the vertical axis. Basically, all points to the left of 100 have not met their target yet (relationship between actual value and target value), while all points to the right have already met their target. All points above 100

[45] The values concerning the poverty target correspond to the year 2011 since more recent data are not available due to a break in the time series in 2012. The rather large gap between target level and projected development is partly due to an increase in the number of people at risk of poverty in 2011. Since the underlying time series shows rather large year to year fluctuations, this gap should be interpreted with caution. Nevertheless the long-term trend indicates that further action is needed in order to achieve the desired reduction of people at risk of poverty.

show growth dynamics which will lead to reaching the target by 2020; all points below 100 show growth dynamics which do not lead to the target by 2020. The figure can be split in four parts, with bottom left one the worst in terms of performance: R&D and greenhouse gases are both below the target and do not show the necessary dynamics to reach the goal. The top left part shows areas where the target has not been met yet, but growth dynamics are favourable: renewables. The bottom right part shows areas which are currently above target, but where growth dynamics are deteriorating, as is the case for energy efficiency. The top right part shows areas both above the target and growing further, such as higher education and early school leavers.

Figure 24: Overview of all targets: distance to target vs. probability of reaching target



Source: WIFO. Horizontal axis: Distance to target (>100 = target met). Vertical axis: probability of reaching target (>100: reaching target is likely judging by past growth patterns).

The simple purpose of target paths is to provide a yardstick against which actual values can be compared. The analysis of target paths yields rather clear-cut results concerning areas where efforts should be intensified. However, it is important not to set economic and environmental strategies solely bearing in mind the Europe 2020 key targets. In particular, progress towards targets should not be the only gauge of Austria's economic performance. Rather, a broader perspective on the overall target of smart, inclusive and sustainable growth should be adopted. While focusing on a few important targets helps policy coordination and strategy formulation across the EU Member States, caveats should be outlined where necessary,

not least because target setting is always against a backdrop of uncertainty. If targets are not reached there needs to be a sober analysis of why this is the case, with the benefit of hindsight. This analysis may pinpoint factors that prevent targets from being reached even though they may be compatible – or not - with favourable growth perspectives.

4.2 Target conflicts and complementarities

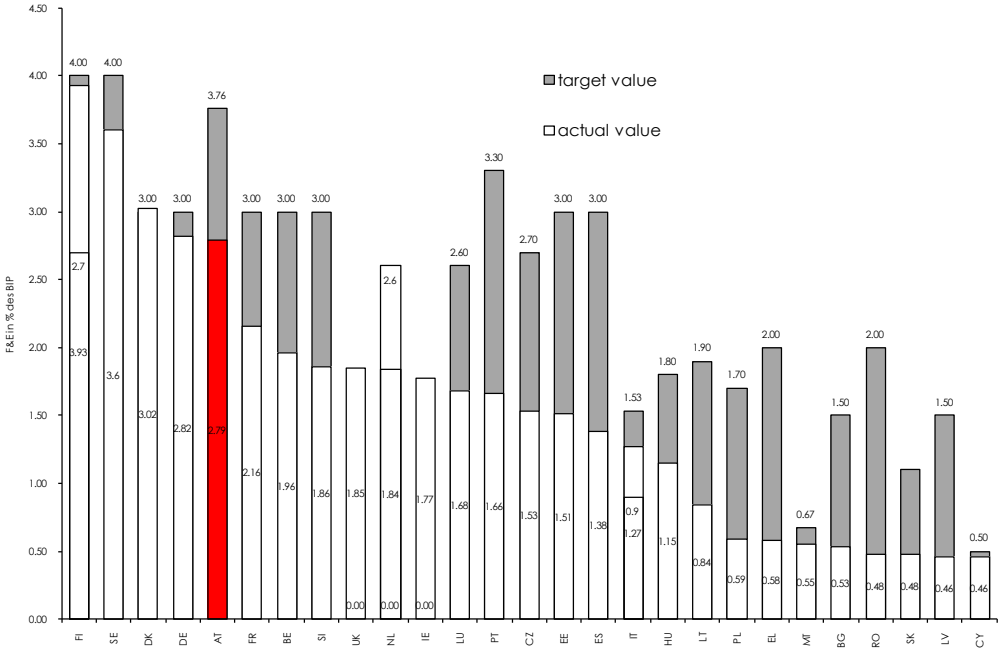
Targets are not independent from each other. There are or there may be target conflicts and complementarities, i.e. situations where progress on one target may be accompanied by a lack of progress on another target (conflict), or situations where progress on one target helps the progress of another (complementarity). Several examples are relevant here.

First, a clear example of complementarity is between R&D and higher education. It has already been shown that the R&D target is ambitious, not least because business sector expenditure dynamics are much weaker than required. On current trends, the R&D target is unlikely to be met. At the same time, the higher education target is likely to be met. Now this on its own should not lead to decreasing or stagnating public expenditure for higher education (research), and increasing public support of business R&D. Targets are not "tradable". The public financing of business R&D is already quite high, as shown above. There may also be structural reasons why Austria's business sector does not markedly increase its R&D intensity: it is specialised in industries featuring average R&D intensities (where average R&D intensities are sufficient for international competitiveness). R&D intensive industries have usually a much higher intensity of tertiary educated workers. Here the higher education target comes into play. Figure 25 and Figure 26 compare the R&D and higher education targets of the EU Member States. It is obvious that while in R&D, Austria aims at the top, in higher education – and that is including ISCED 4a, upper secondary vocational schools – Austria only aims at the European average.

Hence, prioritising the higher education target – and actually going beyond that target – may actually indirectly contribute to also reaching the R&D target, by fostering structural change towards R&D intensive industries. Additional R&D expenditure would primarily come from business, not from the public sector, also contributing to reaching the R&D expenditure distribution goal.[46] This is just an example of course to show that targets should be examined for potential interdependencies and to caution against a narrow view of the targets guiding policy making.

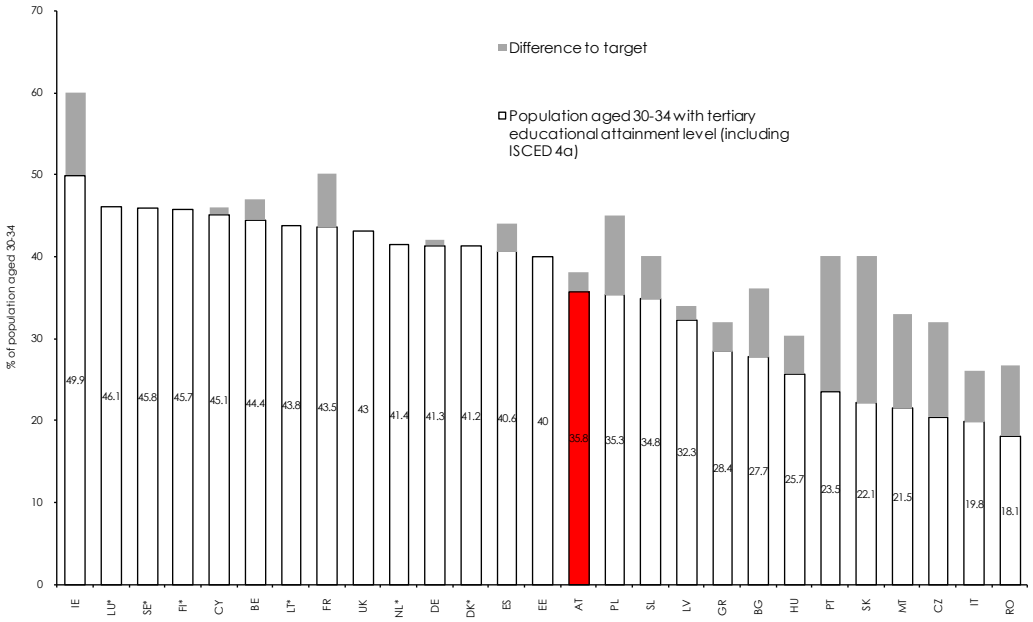
[46] "Provided effective technology transfer systems are put in place, academic research is probably the most effective source of new ideas, which in turn induce further research for the business sector." (Van Pottelsberghe De La Potterie, 2008, p. 7)

Figure 25: Europe 2020 R&D target and actual values in the EU



Source: Eurostat, WIFO.

Figure 26: Europe 2020 higher education target and actual values



Source: Eurostat, WIFO. *Finland, Denmark, Netherlands, Lithuania, Sweden and Luxembourg are "above target" as they use narrower national target definitions (but their narrower actual values are not shown here).

A different case is the relationship between R&D and employment. Process innovation, in particular, may lead to worker displacement, while product innovation usually leads to increasing employment (see e.g. Harrison et al., 2008; Lachenmaier - Rottmann, 2011). Which effect actually dominates will also be influenced by international competition. When process innovation is necessary to remain competitive at the firm level, then the worker displacement has to be weighed up against the loss of all workers.

Another example only very briefly mentioned here is the potential conflict between the economic performance goals, or goals which influence economic performance, such as R&D, employment and education, – and the environmental sustainability goals. A more successful R&D and employment performance will very likely go hand in hand with higher GDP growth, which will make reaching the environmental goals harder, as outlined above. In this case though, the policy direction is clear: environmental efforts have to be stepped up significantly to ensure the compatibility of economic and environmental performance. There may be complementarity between R&D and the environmental targets though if R&D is more strongly directed at finding solutions for the climate challenge. In fact several papers argue for stronger directed technical change in terms of specific research subsidies to combat climate change (see e.g. Acemoglu et al., 2009).

Finally, education is very clearly complementary with R&D as illustrated above, but also of course with employment and poverty. The unemployment rate of people with low qualifications in Austria was about 18% in mid-2012, of people with tertiary qualification below 3%. Education may thus always be regarded as another policy package to foster R&D and employment and to reduce poverty, and not only as a target in its own right.

4.3 Summary assessment of targets and CSRs

In this section, we try to provide a summary assessment of i) the target areas, giving hints as to whether target areas are on or off track, based on both the target paths outlined above and the measures announced by the Government to reach the targets (Table 1615); and of ii) the CSRs (Table 1817). The summary assessments must be interpreted with caution, as they are not based on an in-depth evaluation of policies.

4.3.1 Progress towards Europe 2020 targets

Generally, with the exception of R&D, targets are on track; even though in several cases not bottlenecks are addressed, or not all key policy options are being used. This is however also related to the level of ambition in some areas. In higher education, the Austrian target including the ISCED 4a graduates is still below the European average, whereas in R&D, Austria aims at the top. In the case of private sector R&D expenditure, which is the main reason why the overall R&D target is not on track, a comprehensive set of measures has been announced in the form of a far reaching strategy. Even if all measures of the innovation strategy are imple-

mented, it is still unlikely that the target will be met as structural change takes time and as the target was set very ambitiously.

This assessment is of course highly dependent on external circumstances such as a resolution of the euro area economic problems. Target forecasts are only meant to help make the impact of a continuation of current trends more tangible and hence inform policy makers as to where efforts might need stepping up. Yet again one must stress that measures should not be set with a narrow target focus in mind, but with a focus on the broader requirements of fostering smart, inclusive and sustainable growth. The assessment is also based on measures announced, not on measures implemented, as the strategy has not reached mid-term yet.

Table 16: Summary assessment of progress in target areas, based on past performance trends and measures announced/implemented

Target area	**Bottlenecks/main subtargets**	**Bottlenecks/key policy options not addressed/measures lacking**	**Overall assessment of progress in target area: measures announced/implemented and past trends**
R&D 3.76%; public sector share 30-33%	Structural change Sectoral upgrading Leverage effect of public policies	In principle, all bottlenecks addressed, implementation should now be the focus, in particular as regards leverage effect of public policies and academic research.	R&D target forecast based on past trends is approx. 3.3% . The innovation strategy is comprehensive, but even if everything is implemented, it is unlikely that the target will be met by 2020 due to the long time lag of policies; however, smart and sustainable growth will have been well addressed.
Education: 38% higher education graduates	Higher-education drop-outs Entry rate into tertiary education	Impact of formula-based unit cost model will depend on implementation; question mark behind funding beyond 2015. Early streaming only partially addressed Broadening access measures e.g. for adults, low-income students	Target already reached; however, in education Austria aims only at the average EU level, while it given its economic situation it should aim at the top. Target forecast is 48%; but future trends may hinge on future spending increases, currently budgets beyond 2015 are "flat", i.e. government does not intend to increase spending on higher education.
Education: 9.5% early school leavers	Quality of education system Education and training guarantee (Compulsory) advice, coaching Support for migrants	Comprehensive national qualification strategy Systematically capture people that are at risk of dropping out of the education system and direct those people automatically to suitable advice and qualification programmes.	The target has currently already been reached, but given the past fluctuations this should not lead to complacency; also some countries reach even lower rates. Especially children with migrant or disadvantaged socio-economic background face much higher drop-out rates.
Employment: 77-78%	Employment of the elderly Employment of women Employment of young, low-qualified and migrants	Gender difference in statutory retirement ages Employer incentives older workers No structural changes aiming at invalidity pensions for those aged 50 plus Quality of childcare (e.g. opening times) Labour taxation low income earners	Target forecast is 78.8-79.4%. Even though some potential measures addressing bottlenecks are currently not planned, employment is well on track. However, employment is also closely associated with the business cycle; employment performance in 2013 (no full-year data available yet) is likely to have been lacklustre, with unemployment rising.

Poverty: -235.000	Long-term unemployment Prevention of health risks Quality, availability, costs of care infrastructure Quality of education system (mobility) Labour taxation low income earners See also bottlenecks education/employment	Nation-wide extension of the step-to-job programme Quality of childcare Specific measures for marginalised persons See above education and employment measures	Target forecast is around -276.000. There is now a balanced approach in place which combines an overall economic growth strategy (Europe 2020) with specific measures to address vulnerable groups. Within those specific measures, some are lacking, for others, their effectiveness remains to be assessed, such as e.g. the means-tested basic income. Addressing all key policy options in the coming NRPs and effectively implementing announced measures or increasing the effectiveness of existing ones should lead to a favourable outlook for reaching the target by 2020.
Environment: Greenhouse gases -16% in non-ETS	Manufacturing industries (main instrument EU ETS ETS) Transport Energy generation Buildings Public R&D expenditure on clean energy	Policies that address price signals, i.e. carbon taxes, and thereby the demand side of energy use are lacking in most sectors or do not show strong enough incentives as in the transport sector. "Avoid" and "shift" in transport demand.	Greenhouse gases are not on track judging by longer-term growth trends. While Austria GHG intensity levels are quite good and emission reductions were achieved in recent years, actual emissions are still above the target path. In addition, efforts will have to be intensified when economic growth increases.
Environment: Share of renewable energy 34%	Green Electricity Act		Target forecast is around 45%, well on track, provided that overall energy consumption does not rise too much.
Environment: Energy efficiency	See GHG	The problem of rebound in energy demand is not yet addressed and could as well be dealt with by carbon taxes.	Indicative target for final energy demand seems to be on track. However, while Austrian energy intensity levels are quite good, the growth dynamics have not been favourable recently. The energy efficiency act has yet to be adopted.

Source: WIFO.

Based on Table 1716, we suggest a set of outcome monitoring indicators for the Austrian EU 2020 strategy, including of course the key targets themselves but also performance indicators for the bottlenecks/main subsidiary targets. We suggest an additional number of indicators to facilitate policy analysis, i.e. to identify more quickly the key drivers behind the developments in the headline targets.

Table 17: Outcome monitoring indicators for the Austrian Europe 2020 strategy

Target area	**Outcome Indicator**
R&D	R&D as a % of GDP Share of public financing of R&D expenditure Share of knowledge-, research-intensive sectors (structural change) Share of high-quality exports in technology-oriented sectors (sectoral upgrading) Industry-adjusted R&D intensity of business sector (sectoral upgrading)
Education – Higher Education	Higher education graduates in pop. 30-34 Entry rate into higher education/Share of A-levels in pop. Drop-out rate (or rather success rate) in higher education S&E-graduates per 1.000 population
Education – Early school leavers	Early school leavers as a % of 18-24 year olds Share of pupils not reaching competence level 2 in PISA
Employment	Employment rate 20-64 Employment rate 55-64 Employment rate women Employment rate young, low-qualified, migrants
Poverty	Number of individuals in or at risk of poverty
Environment	GHG overall and by sector Share of renewable energies Energy efficiency Decoupling of GHG emissions from economic growth (GDP)

Source: WIFO.

4.3.2 Progress towards CSRs

Next, we list the CSRs and assess whether they are appropriate and have been addressed by the measures proposed (Not addressed – Partially addressed – Fully addressed), based on the discussion in section 3.

Out of the five broad recommendations within the scope of this report, all are partially addressed. In CSR 2, the harmonisation of the statutory retirement age between men and women has not been brought forward; the statutory retirement age has not been linked to life expectancy. In CSR 3, there were no substantial measures shifting the tax burden from low income earners towards environmental taxes; in CSR 5, early streaming has only been partially addressed; other reforms to improve educational outcomes are under way (e.g. as regards standards), but their effectiveness must be evaluated once implemented. In CSR 6, some barriers to competition in specific sectors of the service sector as well as in liberal professions remain.

Table 18: CSR for Austria and appropriateness of policy reaction

CSR	CSR appropriate?	Assessment	Key policy options lacking
2. Pensions Bring forward the harmonisation of pensionable age for men and women, increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy, implement and monitor the recent reforms restricting access to early retirement and further improve older workers' employability in order to raise the effective retirement age and the employment rate of older workers.	Partially appropriate	Partially addressed	• Harmonisation of pensionable age for men and women is not directly addressed • No measures aim at the inclusion of an automatic demographic factor into the calculation of pension allowance or pensionable age.
3.1 Employment Take new measures to increase the labour market participation of women, namely by further improving child care and long-term care services and address the high gender pay and pension gaps. Fully use the labour market potential of people with a migrant background by continuing to improve the recognition of their qualifications and their education outcomes.	Appropriate	Partially addressed	• Some important steps in order to foster female labour market participation are taken but more incentives for male child-care participation would be appreciable. Labour market segmentation and the large gender pay gaps remain core issues that need further improvement. • Simplifying the recognition of foreign qualifications is important for reducing labour market disadvantages but do not remove e.g. difference in education participation (inheritance of education; early school tracking). These issues must be addressed more forcefully.
3.2 Employment Reduce the effective tax and social security burden on labour for low-income earners in a budget-neutral way by relying more on other sources of taxation less detrimental to growth, such as recurrent property taxes.	Appropriate	Partially addressed	• Reduce social security contributions for low-income earners • Increase recurrent property taxes by reforming tax base (currently undervaluation due to use of outdated unit values) • re-introduce growth- and employment-friendly inheritance and gift tax • abolish tax exemptions in personal income and value added tax to compensate for revenue losses from cutting personal income tax and social security contributions for low-income earners

4. Health care and long-term care Effectively implement the recent reforms of the health care system to make sure that the expected cost efficiency gains materialise. Develop a financially sustainable model for the provision of long-term care and put a stronger focus on prevention, rehabilitation and independent living.	Appropriate	Partially addressed	• Improve cross-stakeholder pooling of funds for better contracting governance and effective purchasing across care settings, • Address overcapacity and fragmentation also within social security. • Long-term care: The CSRs lack to address the labour market in the care sector: Key policy options to improve the labour market conditions of the care sector in order to increase labour supply refer to higher wages, improvements in training, measures to qualify more people to work in the care sector (including migrant workers, unemployed people, men) and measures to enable care service workers to move to higher qualified jobs by further training.
5.1 Education Improve educational outcomes, in particular of disadvantaged young people, including by enhancing early childhood education and reducing the negative effects of early tracking.	Appropriate	Partially addressed	• Expansion of full day school forms and educational standards are important aspect in improving educational outcomes. However early tracking – a key bottleneck in the Austrian School System is not addressed.
5.2 Education Further improve strategic planning in higher education and enhance measures to reduce dropouts.	Partially appropriate	Partially addressed	• Implementation of unit-cost based funding model threatened by unclear budget prospects. Universities should get right to select applicants. • Higher education planning may be ineffective when not adhered to (e.g., new medical university Linz)
6. Competition and regulation Further strengthen the powers and resources of the federal competition authority and monitor the implementation of the competition law reform. Remove excessive barriers for service providers. This includes reviewing whether existing restrictions on entry and conduct in regulated professions are justified by general interest and fostering competition notably in the railway sector.	Partially appropriate	Partially addressed	• Implementation of a foresight-oriented competition policy based on transparent quantitative competition monitoring. • Introduction of a reversal of the burden of proof in antitrust proceedings. • Repositioning of the Competition Commission as an independent expert panel following the example of the German monopoly commission • Continue to relax restrictive rules in regulated trades and liberal profession on the basis of a comprehensive review whether existing restrictions on competition in regulated trades and professions are justified by general interest. • Develop technical framework for trials of competitive tendering for non-commercial rail passenger transport (i.e. define appropriate sub-networks, future timetables, quality standards, administrative responsibilities, procedural steps etc.).

Source: WIFO, European Commission.

5. Conclusions

The European Union has embarked on a new growth strategy called "Europe 2020" which should deliver smart, sustainable and inclusive growth by the year 2020. Within this growth strategy, Austria has committed itself to reaching headline targets in five areas: R&D, Education (higher education, early school leaving), Employment, Poverty and Environment (greenhouse gases, renewable and energy efficiency). In addition, the European Union addresses recommendations to reform economic policy (CSR). Reaching these targets and addressing these CSR should boost smart, sustainable and inclusive growth.

A detailed analysis of the previous trends in these headline targets and the growth now necessary to reach them reveals a rather clear-cut picture. Austria shows good performance (above the EU average) levels as regards R&D, employment, early school leavers and the environmental goals (greenhouse gas emissions' intensity, energy efficiency, share of renewables); only in higher education is Austria below the EU average, even when including graduates from upper secondary vocational education (Isced 4a). Targets were set with varying levels of ambition. The targets for the share of tertiary graduates and of early school leavers have already been reached. The employment and share of renewables targets look well on track as growth trends required are well in line with past growth trends. By contrast, the growth rates required for reaching the R&D target in the remaining period 2013-2020 of the strategy are considerably above past trends and the actual value in 2013 is quite far off the required value in terms of a linear target path. While short-term trends for greenhouse gases are favourable, the longer-term trend does not suggest that the target will be met. This will also depend on economic growth – the higher, the more difficult it will be to reach this target.

Before any interpretation of progress towards the targets, a few words of caution are necessary. First, yearly target values are not a goal per se, they just serve as a yardstick to assess distance to target. The target that matters is the target value 2020. Furthermore, it is important not to set any economic and environmental strategies solely focusing on the narrow Europe 2020 key targets. In particular, progress towards targets should not be the only gauge of Austria's economic performance. Rather, the wider picture needs to be kept in mind, namely that of achieving smart, inclusive and sustainable growth. Moreover, targets are not independent of each other. There are or there may be target conflicts and complementarities, i.e. situations where progress in one target may be accompanied by lack of progress in another target (conflict – e.g. environment and growth), or situations where progress on one target helps progress on another (complementarity – E.g. education and R&D, poverty and employment).

Our yardstick when assessing the potential contribution of the measures in the NRP to reaching the main or subsidiary targets, or appropriately addressing the CSRs, is whether they are addressing the key policy options to improve performance.

In R&D, there is a comprehensive innovation strategy by the Austrian government which addresses almost all key policy options to both increase R&D intensity and to foster smart growth, hence the focus should be on implementation. In the other areas, as well as regarding the CSRs, there are usually several substantial measures addressing important bottlenecks, but also key policy options left unaddressed, such as e.g. early streaming for the higher education target, no earlier harmonisation of the statutory retirement age between men and women for the employment target, and few policies affecting price signals in the environmental domain etc.

Of course, such an assessment has to be regarded with extreme caution. First of all, it is not based on an in-depth evaluation of policies. Furthermore, the past is not necessarily a good guide to the future, external events such as a deepening euro crisis may at any time knock the trend off the track towards the target. Even if efforts are on track, there should be no complacency. As mid-term of the Europe 2020 strategy has not been reached yet, the assessment of whether any key policy options are not addressed by the measures announced will naturally be at the core of this monitoring process; towards the end of the strategy, the monitoring will of course be able to and indeed must focus more strongly on the actual implementation of the measures announced. The assessment should merely provide broad orientation for the choice of policy decisions, in the sense of which are the key policy options for reaching the targets and addressing the CSRs, and does the NRP address these options.

Overall, Austria's efforts to reach the Europe 2020 targets and address the CSR are characterised by a multitude of measures. In the case of R&D, which is not on track, there is a well-balanced policy packages in place; for greenhouse gases, the case is less clear and there may be a need for further measures, especially when growth picks up. Where targets are on track there are a couple of key policy options which have not been addressed which, if addressed, could actually lead to going beyond target. Particularly in higher education, this could lead to Austria positioning itself above the EU average also in this area, as it is above the EU average in all the other areas; such effects may only be seen after 2020 though, due to the long time lags involved. Education in general features important complementarities with other target areas, such as R&D, employment and poverty, so that it can be regarded as a key policy option in itself.

6. References

Acemoglu, D., Aghion, P., Bursztyn, L., Hemous, D., "The Environment and Directed Technical Change", National Bureau of Economic Research Working Paper Series, 2009, No. 15451, http://www.nber.org/papers/w15451.

Acosta-Ormaechea, S., Yoo, J., "Tax Composition and Growth: A Broad Cross-Country Perspective", International Monetary Fund, Working Paper, 2012, (WP/12/257). http://www.imf.org/external/pubs/ft/wp/2012/wp12257.pdf.

Aiginger, K., Böheim, M., Budimir, K., Gruber, N., Pitlik, H., Schratzenstaller, M., Walterskirchen, E., Optionen zur Konsolidierung der öffentlichen Haushalte in Österreich, WIFO, Wien, 2010, http://www.wifo.ac.at/wwa/pubid/38441.

Aiginger, K., Falk, R., Reinstaller, A., "Evaluation of Government Funding in RTDI from a Systems Perspective in Austria. Synthesis Report", WIFO - convelop cooperative knowledge design gmbh - Austrian Institute for SME Research - Prognos, Vienna, 2009, http://www.wifo.ac.at/wwa/pubid/36402.

Arbeiterkammer Wien et al. (Eds.), Volkswirtschaftliche Effekte der Liberalisierung des Eisenbahnverkehrs in Österreich, Reihe Verkehr und Infrastruktur, 50, Arbeiterkammer, Wien, 2013.

Arnold, J. M., Brys, B., Heady, C., Johansson, Å., Schwellnus, C., Vartia, L., "Tax Policy for Economic Recovery and Growth", The Economic Journal, 2011, 121(550), S. 59-80.

Arnold, J., Do Tax Structures Affect Aggregate Economic Growth?, OECD Economics Department Working Paper, 2008, (ECO/WKP(2008)51).

Austrian Federal Chancellery, Austrian National Reform Programme 2013, Vienna, 2013.

Baumgartner, J., Verhaltenes Wirtschaftswachstum – WIFO etwas optimistischer als Europäische Kommission und Währungsfonds, WIFO-Presseaussendungen, 19.11.2013, http://www.wifo.ac.at/jart/prj3/wifo/resources/person_dokument/person_dokument.jart?publikationsid=47001&mime_type=application/pdf

Biffl, G., Pfeffer, T., Skrivanek, I., Anerkennung ausländischer Qualifikationen und informeller Kompetenzen in Österreich; Donau Universität Krems, 2012.

BMG (2012). Die Gesundheitsreform 2012 Bessere Versorgungsstrukturen und mehr Leistungen für die kommenden Generationen, http://www.bmg.gv.at/cms/home/attachments/3/5/1/CH1329/CMS1327510505216/gesundheitsreform_2012_presse.pdf

BMLFUW, Evaluierung der Umweltförderung des Bundes 2008 – 2010, Wien, 2011.

BMWF – BMVIT – BMWFJ, Energiestrategie Österreich, Wien, 2010.

Bock-Schappelwein, J., Janger, J., Reinstaller, A., Bildung 2025 – Die Rolle von Bildung in der österreichischen Wirtschaft, WIFO, Wien, 2012, http://www.wifo.ac.at/wwa/pubid/45200.

Böheim, M. (2013A), Wettbewerbsmonitoring im Spannungsfeld zwischen ökonomischen Gestaltungsmöglichkeiten und wettbewerbspolitischen Erwartungen, WIFO-Monatsberichte, 2013, 86(3), 225-236.

Böheim, M. (2013B), Überregulierung" als Hemmnis für Wettbewerb und Wirtschaftswachstum, Wirtschaftspolitische Blätter 4/2013, 604-620.

Böheim, M., Friesenbichler, K., Sieber, S., WIFO-Weißbuch: Mehr Beschäftigung durch Wachstum auf Basis von Innovation und Qualifikation. Teilstudie 19: Wettbewerb und Regulierung, WIFO, Wien, 2006.

Böheim, M., Pichler, E., „Der österreichische Selbstmedikationsmarkt: Marktperformance und Deregulierungsspielräume", Wirtschaftspolitische Blätter, 2/2011, 347-368.

Böheim, M., Reformoptionen zur Wettbewerbspolitik in Österreich, WIFO-Monatsberichte, 2008, 81(6) 449-459.

Brenck, A. and B. Peter, Experience with competitive tendering in Germany, in ECMT (Eds.) Competitive Tendering Rail Services, 139-164, OECD Publishing, Paris, 2007.

Bundeskanzleramt (2013), Arbeitsprogrammem der österreichischen Bundesregierung 2013-2018, Wien.

Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (BMLFUW) und Bundesministerium für Wirtschaft, Familie und Jugend (BMWFJ): Energiestrategie Österreich, Maßnahmenvorschläge, Wien, 2010.

Clark, B. R., The Higher Education System: Academic Organization in Cross-National Perspective, University of California Press, Berkeley, CA 94720, 1983.

Coricelli, F., Wörgötter, A., "Structural Change and the Current Account: The Case of Germany", OECD Economics Department Working Papers No. 940, Paris 2012.

Court of Auditors (2013). Stellungnahme zum Entwurf des Gesundheitsreformgesetzes 2013, Rechnungshof, Februar 2013. Wien.

Ederer, S., Kaniovski, S., Pitlik, H., Url, T., "Verhaltener Konjunkturaufschwung nach Wachstumsdelle 2012. Mittelfristige Prognose der österreichischen Wirtschaft bis 2016", WIFO-Monatsberichte, 2012, 85(1), pp. 51–62.

Ederer, St., Janger, J., Growth Bottlenecks – Engpässe für Wachstum und Beschäftigung in Österreich im Rahmen der Strategie "Europa 2020", Studie des WIFO im Auftrag des Bundeskanzleramtes, Wien, 2010.

Eppel, Mahringer, Weber, Zulehner, Evaluierung der Eingliederungsbeihilfe, WIFO 2011.

European Commission (2009): Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

European Commission (2012). Fiscal frameworks across Member States: Commission services country fiches from the 2011 EPC peer review. Occasional Papers, 91. Brussels.

European Commission (2013), Commission Staff Working Document, Assessment of the 2013 national reform programme and stability programme for Austria, SWD(2013) 370 final.

European Commission (2013A), Autumn Forecast, Brussels, 2013 (AMECO database, download nov 5th, 2013).

European Commission (2013B), Taxation Trends in the European Union, Brussels, 2013.

European Commission (2013C), Recent Reforms of Tax Systems in the EU: Good and Bad News, European Commission Taxation Papers, 2013, (39-2013).

European Commission (2013D), Annual Growth Survey 2014, COM(2013)800 final, Brussels, 2013.

European Commission, EUROPE 2020, A strategy for smart, sustainable and inclusive growth, COM(2010) 2020 final, Brussels, 3.3.2010.

European Commission, Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on energy efficiency and repealing Directives 2004/8/EC and 2006/32/EC; {SEC(2011) 779 final, SEC(2011) 780 final}; COM(2011) 370 final, Brussels, 22.6.2011.

European Commission, Public Finances in EMU 2008, Brussels, 2008.

European Commission, Public Finances in EMU 2010, Brussels, 2010.

Gaggl, P., Janger, J., "Will the Great Recession Lead to a Lasting Impact on Potential Output in Austria?", Monetary Policy & the Economy, 2009, 3, pp. 26–52.

Glocker, C., "Erhöhte Unsicherheit dämpft Konjunktur. Prognose für 2012 und 2013", WIFO-Monatsberichte, 2012, 85(10), pp. 755–762.

Gönenç, R., M. M. Hofmarcher MM and A. Wörgötter A (2011), "Reforming Austria's Highly Regarded but Costly Health System", OECD Economics Department Working Papers, No. 895, OECD Publishing. http://dx.doi.org/10.1787/5kg51mbntk7j-en

Harrison, R., Jaumandreu, J., Mairesse, J., Peters, B., "Does innovation stimulate employment? A firm-level analysis using comparable micro-data from four European countries", NBER Working Paper, 2008, 14216, http://www.nber.org/papers/w14216.

Hofmarcher M,. Austria: Health system review. Health Systems in Transition, 2013; 15(7): 1–291.

Hofmarcher, M.M. (2013a), Health policy approaches in the 2013 Austrian coalition agreement: All you need is a health reform! http://www.healthsystemintelligence.eu/docs/MMH_Fast_Track-2013-Austrian_Government_Programme.pdf

Hofmarcher, Maria M. (2010) "Excess Capacity and Planning: Kain tortures Abel". Health Policy Monitor, April 2010. Available at http://www.hpm.org/survey/at/a15/2

Hofmarcher, M.M. (2014) Trends in health expenditure could tolerate further reform, HealthSystemIntelligence Fast Track: http://www.healthsystemintelligence.eu/docs/MMH_HE_Trends_in_Austria-02-2014.pdf

Horvath, T., Url, T., Bridging-Renten als Überbrückung für Einkommensausfälle vor dem Pensionsantritt, WIFO, 2013

Hranyai, K., Janger, J., "Hochschulfinanzierung im internationalen Vergleich", WIFO-Monatsberichte, 2013, 86(2), pp. 173–186.

Hranyai, K., Janger, J., Strauss, A., Forschungsquotenziele 2020, WIFO, Wien, 2013, http://www.wifo.ac.at/wwa/pubid/46996.

IBM Global Business Services and C. Kirchner, Rail Liberalisation Index 2011, IBM Global Business Services, Ehningen, 2011.

Indinger, A., Katzenschlager, M., Energieforschungserhebung 2012 - Ausgaben der öffentlichen Hand in Österreich, Erhebung für die IEA, Wien, 2013.

IRG Rail (Independent Regulators Group Rail) (Eds.), IRG–Rail Annual Market Monitoring Report February 2013, IRG Rail, London, 2013.

Janger, J., "Hochschulsteuerung im Kontext der Autonomie der Universitäten", WIFO-Monatsberichte, 2013, 86(2), pp. 159–171.

Janger, J., "Strukturwandel und Wettbewerbsfähigkeit in der EU", WIFO-Monatsberichte, 2012, 85(8), pp. 625–640.

Janger, J., "Supply-Side Triggers for Inflation in Austria", Monetary Policy & the Economy, 2008, 2, pp. 34–69.

Janger, J., Bestimmungsgründe sektoraler Preisvergleichs- und Anbieterwechselraten in Österreich, Geldpolitik und Wirtschaft, 2010, (Q1/10), 70-91.

Janger, J. Bock-Schappelwein, J., Horvath, T., Meyer, I.,"Monitoring Austria's Efforts Within the Europe 2020 Strategy", WIFO, Vienna, 2013

Janger, J., Hölzl, W., Kaniovski, S., Kutsam, J., Peneder, M., Reinstaller, A., Sieber, S., Stadler, I., Unterlass, F., Structural Change and the Competitiveness of EU Member States, WIFO, Vienna, 2011, http://www.wifo.ac.at/wwa/pubid/42956.

Janger, J., Schmidt-Dengler, P. (2010), "The Relationship between competition and inflation", Monetary Policy and the Economy, No. 1, Oesterreichische Nationalbank, Vienna.

Karner A., Koller S.-Ch., Kettner C., Kletzan-Slamanig D., Köppl A., Leopold A., Lang R., Nakicenovic N., Reinsberger K., Resch G., Schleicher St., Schnitzer H. und Steininger K., Nationaler Aktionsplan 2010 für erneuerbare Energien für Österreich, 30. Juni 2010; http://www.igwindkraft.at/redsystem/mmedia/2011.02.02/1296653537.pdf

Kettner, C.; Köppl, A.; Kratena, K.; Meyer, I.; Sinabell, F. (2012), „Schlüsselindikatoren zu Klimawandel und Energiewirtschaft und der "Energiefahrplan 2050" der EU", WIFO-Monatsberichte, 7/2012, S. 581-596.

Kletzan-Slamanig, D., Steininger, K, Gesamtwirtschaftliche Effekte der klimarelevanten Maßnahmen im Rahmen der Umweltförderung im Inland 2009, Vienna, 2010.

Lachenmaier, S., Rottmann, H., "Effects of innovation on employment: A dynamic panel analysis", International Journal of Industrial Organization, 2011, 29(2), pp. 210–220.

Meghir, C., Phillips, D., "Labour Supply and Taxes", in: Mirrlees, J., Adam, S., Besley, T., Blundell, R., Bond, S., Chote, R., Gammie, M., Johnson, P., Myles, G., Poterba, J. (eds): Dimensions of Tax Design: The Mirrlees Review, Oxford, 2010.

Mühlberger, U.; Knittler, K. und Guger, A., Mittel- und langfristige Finanzierung der Pflegevorsorge, WIFO, Vienna, 2008A.

Mühlberger, U.; Knittler, K., Guger, A. und Schratzenstaller, M., Alternative Finanzierungsformen der Pflegevorsorge, WIFO, Vienna, 2008B.

Myles, G., Economic Growth and the Role of Taxation – Aggregate Data, OECD Economics Department Working Paper, 2009, (ECO/WKP(2009)714).

OCED, Against the Odds. Disadvantaged students who succeeded in school, Paris, 2011.

OECD (2010). Health Care Systems: Efficiency and Policy Settings. Paris, Organisation for Economic Co-operation and Development (OECD).

OECD (2013A), Revenue Statistics, Paris, 2013.

OECD (2013B), Taxing Wages, Paris, 2013.

OECD (2013C), OECD Economic Survey of Austria 2013, Paris.

OECD, 2004, Education at a Glance, Paris, 2004.

OECD, OECD Economic Survey of Austria 2007, Paris, 2007.

OECD, OECD Economic Survey of Austria 2009, Paris, 2009.

OECD, PISA 2009 Results: What Makes a School Successful? Resources, Policies and Practices (Volume IV), OECD Publishing, 2010.

Pitlik, H., Schratzenstaller, M., Growth Implications of Structure and Size of Public Sectors, WIFO Working Paper, 2011, (381).

Prammer, D., Quality of Taxation and the Crisis: Tax Shifts from a Growth Perspective, European Commission Taxation Paper, 2011, (29).

Reinstaller, A., Sieber, S., "Veränderung der Exportstruktur in Österreich und der EU", WIFO-Monatsberichte, 2012, 85(8), pp. 657–668.

Reinstaller, A., Unterlass, F., "Comparing business R&D across countries over time: a decomposition exercise using data for the EU 27", Applied Economics Letters, 2012, 19, pp. 1143–1148.

Scheiblecker, M., "Erste Zeichen einer Konjunkturerholung. Prognose für 2013 und 2014", WIFO-Monatsberichte, 2013, 86(10), S. 799–809, http://www.wifo.ac.at/wwa/pubid/46973.

Schienencontrol-Gesellschaft (SCG) (Eds.) Eisenbahnregulierung in Österreich, Presentation, SCG, 2013.

Schratzenstaller (2012A), M., Zwischen Konsolidierung und Wachstum. Bundesfinanzrahmen 2013-2016, "Konsolidierungspaket II" und Stabilitätsprogrammem. WIFO-Monatsberichte, 2012, 85(5), pp. 361-380,

Schratzenstaller(2012B), M., Gender Budgeting im Steuersystem, Vienna, 2012.

Schratzenstaller, M., Bundesvoranschlag 2011 setzt erste Konsolidierungsschritte, WIFO-Monatsberichte, 2011, 84(1), pp. 63-64.

Schratzenstaller, M., Steuerreform 2009/2010, WIFO-Monatsberichte, 2009, 82(9), pp. 687-702.2009.

Stadler, B., & Wiedenhofer-Galik, B. (2011). Dequalifizierung von Migrantinnen und Migranten am österreichischen Arbeitsmarkt, Mikrozensus Arbeitskräfteerhebung. Statistische Nachrichten,(5), 383-399.

Steiner,M. Early School Leaving und Schulversagen im österreichischen Bildungssystem, In: Specht, W. (Hrsg,), Nationaler Bildungsbericht Österreich 2009, Band 2. Fokussierte Analysen bildungspolitischer Schwerpunktsetzungen, Leykam, Graz, S. 141-159.

Umweltbundesamt(UBA), Klimaschutzbericht 2013, Wien, 2013.

Umweltbundesamt(UBA), Kyoto-Bilanz und Ausblick, Treibhausgas-Emissionen 1990–2012, Präsentation, Wien 2014 (http://www.umweltbundesamt.at/aktuell/presse/lastnews/news2014/news_140115/)

Vogtenhuber, S. (2011). Effekte von Unter · und Überqualifikation auf die berufliche Weiterbildungsaktivität, in: Markowitsch et al. (Hg.): S. 252·275. In J. Markowitsch, E. Gruber, L. Lassnigg, & D. Moser (Eds.), Turbulenzen auf Arbeitsmärkten und in Bildungssystemen. Beiträge zur Berufsbildungsforschung. Innsbruck, Wien, Bozen: Studien Verlag.

Wößmann, L. (2008A), "Efficiency and Equity of European Education and Training Policies", International Tax and Public Finance, 2008, 15(2), S. 199-230.

Wößmann, L. (2008B), "How Equal Are Educational Opportunities? Family Background and Student Achievement in Europe and the United States", Zeitschrift für Betriebswirtschaft, 2008, 78(1), S. 45-70.

Wößmann, L., "Bildungspolitische Lehren aus den internationalen Schülertests: Wettbewerb, Autonomie und externe Leistungsüberprüfung", Perspektiven der Wirtschaftspolitik, 2006, 7(3), S. 417-444.

Wößmann, L., Zentrale Prüfungen als "Währung" des Bildungssystems: Zur Komplementarität von Schulautonomie und Zentralprüfungen, Vierteljahreshefte zur Wirtschaftsforschung 72 (2003), DIW, Berlin, 2003, S. 220-237.

7. Annex: Analytic grid for assessment of measures in the NRP

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main**	**to reaching subsidiary**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
R&D	**Main target: 3.76% of GDP**									
All following targets		Implementation of Austrian RTI-Strategy 2020	Yes	3	3		Very comprehensive list of measures, focus needs to be on implementation	The strategy is very comprehensive; if anything it does not address the issue of human resources for innovation in a broad sense (i.e. not just researchers and tertiary S&T graduates, but also skilled workers with upper secondary vocational degrees)	1	
Boosting innovation capabilities of the business sector - creation and growth of innovative start-ups	Number of knowledge- and research-intensive start-ups increasing by 3% per year on average	Raising venture capital intensity: Government as "cornerstone investor" (fund of funds concept), e.g.: VC-Initiative, cleantech-funds	yes	2	3			Raising VC intensity requires a broad spectrum of measures, not least regulatory measures to facilitate VC fund activity in Austria	3	
		Award of annual "Phönix" prize to spin-offs from universities and public research organisations	yes	1	1				3	
Boosting innovation capabilities of the business sector - increasing the number of innovative and R&D-active firms (exploit untapped potential)	Number of R&D-active or innovative firms	The services initiative (Dienstleistungsinitiative DL-I) serves to promote innovative service projects which were up to now not in the focus of public R&D and innovation promotion system.	yes	1	2				3	
		Innovation Voucher for creative industries (Innovation promotion in the creative sector)	yes	1	1				3	
Boosting innovation capabilities of the business sector - raising business sector R&D intensity and boosting input additionality (impact of public R&D on business R&D)	R&D intensity BERD controlling for industrial structure	Building research capacity in industry with a focus on SMEs ("Forschungskompetenz für die Wirtschaft")	Yes	1	2				3	
Boosting innovation capabilities of the business sector - business science links	Cooperation statistics in CIS	Comet Centres	Yes	3	3		The programme has been running for some time but is substantial in nature.		3	
		National contact point for IP affairs (strengthen academic transfer)	Yes	1	2				3	
		Laura-Bassi-Centres (fostering gender equality, scientific excellence and management know how)	Yes	1	2		Also relevant for boosting performance of research and for increasing number of female S&T students (see policies in education)		3	
		Christian Doppler Centres	Yes	1	1		This longstanding cooperation programme is being extended.		3	
Boosting innovation capabilities of the business sector - improving transformation of R&D into successful innovations	Indicators of structural change/sectoral upgrading	Innovative public procurement	Yes	1 to 3	1 to 3		Impact depends on the final scope of implementation, more details necessary. May also be relevant for raising number of innovative firms		3	
		Research studios Austria	Yes	1	1		Very small budget.		3	

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main**	**to reaching subsidiary**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
Boosting innovation capabilities of the business sector - thematic research	e.g. Patent indicators	Smart Production	Yes	2	2				3	
Boosting performance of (non-business) research in Austria	Publication quality, IUS	IST Austria- Institute of Science and Technology Austria	Yes	3	3				2	
		Expansion Vienna Biocenter, IMBA (research, doctoral studies, research infrastructure)	Yes	2	2					
Human resources/motivation to do science	Student enrolment in MINT courses at tertiary institutions	Expansion of the Young Science – Network- and Service Centre (2011 – 2014)	Yes	2	2		This and the programme below may motivate more students to choose science-related studies; however, this cannot replace structural changes to the way science is taught in schools.		3	
		Programme Sparkling Science 2007 – 2017	Yes	2	2				3	
		DK profil: FWF PhD Programme Fostering the Education of Young Researchers	Yes	1	1		The programme is of high quality, but small.		3	
Education	**Main target: The share of early school leavers should be 9.5% and at least 38% of 30-34 years old should have completed a tertiary or equivalent education (including ISCED 4a)**									
Increasing the number of individuals participating in education, preparing for university studies, and increasing mobility in the tertiary sector	Population share aged 25-34 with ISCED 4a/5/6; entry/graduation rates higher education	Hochschulplan (overarching concept for higher education sector) - formula based unit cost model	yes	3	3	3	3 only when unit cost model will be fully rolled out		1	
		Reform of teacher education (PaedagogInnenbildung NEU)	yes	1	1	1	The reform of teacher education may have indirect effects on the share of tertiary graduates.		2	
		Increasing the global budget of the Universities, as well as further funding ("offensivmittel")	yes	2	2	2	More funding is welcome but the increase is limited (up to year 2015).		2	
	Population share aged 25-34 with ISCED 4a/5/6; entry/graduation rates higher education	secondary level NEW: individualisation and targeted support	yes	3	3	3	prevention of drop-outs		3 (Schulversuche), ansonsten 1 (Planung), ab 2017 an allen BHS/AHS	
		Neue Mittelschule - new secondary school	yes	3	3	3	due to individualisation	Roll out of Neue Mittelschule does barely include academically oriented lower secondary schools	3	
		Vocational training at VET colleges (BMS/BHS)	yes	3	1	3	no information concerning concrete measures		3	
		Measures for pupils with another first language than German: language, teachers	yes	3	3	3	focus on language skills support		3	

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main target**	**to reaching subsidiary target**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
		five-stage plan for the prevention of truancy								
		Further expansion of full-day school forms								
		teacher training NEW	no				organisation of training most important, no impact on success of youth at school by 2020		1	
		Nationale Strategie zum LLL (task force:LLL 2020) - national strategy for life-long learning	no				taskforce LLL might contribute, but no concrete measures yet, therefore only indirect contribution			
		new school-leaving and diploma examination	yes	3	3	3			3	
		youth and apprentices coaching	yes	3	3	3		necessary to embed this measure in a broad strategy to reduce early school-leavers	3 (not in all federal states)	
Enhancement of the attractiveness, quality and permeability of vocational training/education	Share of apprentices with "Berufsmatura" (vocational school leavers qualification)	QIBB Qualitätsinitiative Berufsbildung - quality initiative vocational training	yes	2	2	2	berufsbildendes Schulwesen		3	
Measures combating long-term unemployment by improving the labour market participation of working-age groups at risk of poverty and exclusion	rate of long-term unemployed to total unemployment	Improve employment opportunities for receipients of a needs-based minimum benefits system; social inclusion of long-term unemployed risk groups	yes	3	3			no nation-wide implementation of step-to-job, liability under 15a agreement not enforceable, questions concerning housing not solved, even for special needs no clear decision (no enabling provision), performance catalogue not clearly formulated, lack of offers for people with low labour market attachment	3	
		Measures for health prevention	no	3	3	3				
		Part-time work for educational purposes and grants for the purpose of gaining skilled worker qualifications		3	3	3				
		Measures that offer qualification possibilities; improvement of quality of work	no							

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main target**	**to reaching subsidiary target**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
Poverty	**Main target: reduction of the number of people at risk of poverty and social exclusion by 235,000 by 2020**									
Measures combating long-term unemployment by improving the labour market participation of working-age groups at risk of poverty and exclusion	rate of long-term unemployed to total unemployment	Improve employment opportunities for receipients of a needs-based minimum benefits system; social inclusion of long-term unemployed risk groups	yes	3	3			no nation-wide implementation of step-to-job, liability under 15a agreement not enforceable, questions concerning housing not solved, even for special needs no clear decision (no enabling provision), performance catalogue not clearly formulated, lack of offers for people with low labour market attachment	3	
		Measures for health prevention	no	3	3	3				
		Part-time work for educational purposes and grants for the purpose of gaining skilled worker qualifications		3	3	3				
		Measures that offer qualification possibilities; improvement of quality of work	no							
Measures preventing health risks at the workplace and increased labour market integration of individuals with impaired health and individuals with a disability	share of individuals with a disability as % of workforce	National Action Plan on Disability	no	3	3	3			3	
		career rehabilitation paid for by AMS starting 2014	yes	1	3	3				
		support staff for individuals with a disability: individual advice and accompanying young people at the interface between work and educational system	yes	3	3	3	work assistants	alternatives to qualifications needs to be widened (e.g. development of extended labour market)		
Reduction of women-specific disadvantages in income and employment issues	median income women/men (full time)	increase of income transparency	yes	2	3	3	awareness campaign, influence on female career decisions		3	
		improvement of care infrastructure for children and for dependants.	yes	3	2	2	quality and structure important			
		support of paternity leave	yes	1	2	1				
Combating poverty of children and youth, and inherited poverty	poverty rate of age groups in %	active measures to decrease the rate of early school leavers	yes	3	3	3		quality of degrees is important	2 partly introduced	
		early language training for children with migration background	yes	3	3	3			3	
		training guarantee	yes	3	3	3		measures focus on the prevention of inherited poverty, not on reducing child poverty	3	
		youth coaching	yes	3	3	3		inclusion of child welfare bureau	3	
Reconciliation of family and working life	employment rates of women with children (e.g. children under 10/14 years)/women without children	mandatory year at the kindergarten free of charge	yes	2	2	3			3	
		improvement of care infrastructure for children and outpatient nursing infrastructure	yes	3	3	3		reform of private insolvency is not listed	1	
		extension of full-day childcare at schools	yes	3	3	3			1	

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main target**	**to reaching subsidiary target**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
Employment	**Main target: increase employment rate to 77-78%**									
labour market participation of older employees	retirement age depending on date of birth, age on exiting employment; employment rate 50-54, 55-59, 60-64 by sex; share of new pensioners, share of I-pensions in population of same age	Summary of all measures		3	-	3	Most measures dealing with the increase of the employment participation of older persons will only have significant impact in the longer run, but address important structural points.	lack of measures at the employer level		
		Hacklerregelung	yes	3	3	3	even though the measure will only impact in the longer run, it is structurally important		2	
		Kontogutschriftmodell (old age part time benefit model)	yes	1	1	1			3	
		employment for older workers and "corridor pension"	yes	3	3	3	even though the measure will only impact in the longer run, it is structurally important		2	
		workplace design adapted for older employees and prevention measures within the "ArbeitnehmerInnenschutzgesetz" (law for the protection of employees"),performance of an analysis of the age structure in companies, risk assessment, focus on workplace design adapted for older employees within the qualification and flexibility counselling for companies	yes	3	3	3	though the measure will only impact in the longer run, it is structurally important		1	
		Fit2work	yes	3	3	3			2	
		"Gesundheitsstraße"	yes	3	3	3	even though the measure will only impact in the longer run, it is structurally important		3	
Labour market participation of women	employment rates of women (total, with children 0-2, with children 3-6)	Summary of all measures		2	-	3	the improvement in care infrastructure for children (qualitatively and quantitatively) is particularly important to increase the labour market participation of women, some measures that are less important for labour market participation address important aspects of gender equality			
		support re-entry of women into employment (counselling)	yes	2	2	2		focus on counselling not on qualifications measures for target group	3	
		women in technical and craft-orientated jobs	yes	1	2	2	measure of minor importance for the increase of labour market participation	Topic needs to be broadened, e.g.. Choice of subjects/apprenticeship, FiT only one aspect	3	
		extension of child care facilities		3	3	3				
		vocational centres for women	yes	1	2	2	measure of minor importance for the increase of labour market participation		2	

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main target**	**to reaching subsidiary target**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
		income staff reports	yes	1	1	1	measure of minor importance for the increase of labour market participation		3	
		mandatory year at the kindergarten	yes	1	1	1			3	
		improvement in quality of care infrastructure for children	yes	3	3	2			2	
		national action scheme for gender equality in the labour market	no	3	3	3	set of different measures (e.g. introduction of an income calculator)		2	
		paid month of paternal leave in civil service ("Papamonat")	yes	1	1	1			3	
		quota for women's participation on supervisory boards of state-owned companies	yes	1	1	1	measure of minor importance for the increase of labour market participation		2	
		paternity leave	yes	3	3	3			2	
labor market participation of youths, people from a migrant background and low skilled persons	youth: rate of youth neither employed nor in education, number of drop outs from education	Summary of all measures		2	-	2	harness the unused potential of people from a migrant background; structural improvements have a potentially high impact	systematic registration of target groups necessary, identification of target groups should be main goal, see "Gesundheitsstraße"		
		Ausbildungsgarantie - Überbetriebliche Lehrausbildung training guarantee	yes	3	3	3	no replacement for structural weaknesses of the dual education system		3	
		Aktion Zukunft Jugend	yes	3	3	3			3	
		Jugendstiftung (JUST neu)	yes	3	3	3			3	
		Produktionsschulen	yes	3	3	3	people from a migrant background are overrepresented in production schools		3	
		Integrationsoffensive	yes	2	2	3	Support of language skills		3	
		recognition of foreign qualifications	yes	3	3	3			2	
		Mentoring for migrants		3	3	3				
		Improving language skills		3	3	3				
		Youth, Apprentice coaching	yes	3	3	3				

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main target**	**to reaching subsidiary target**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
Environment										
EU Target: Reducing GHG emissions by 20% in 2020 with respect to 1990. National Target: Reducing Austria's GHG emissions by 16% with respect to 2005	GHG emissions in Mio.t CO_{2e}	Continuation of the Subsidies programme for thermal renovation of buildings (residential and business) started in 2009; € 123 million funding for the year 2013; programme started in January 2013. This programme pushes at the same time investments, jobs and saving energy. Continuation until 2016 is intented. (Contributes also to energy efficiency target).	yes	potentially high (3)			Reducing the energy demand for heating (and cooling) in the stock of residential and commercial buildings and thus reducing CO2 emissions constitutes a relevant measure. The support scheme is well accepted. It demands certain thresholds of energy efficiency to be fulfilled by the renovation measures and the level of support depends on the ambitiousness. However, it is still possible to get single measures (e.g. changing windows) subsidised. The climate policy effect would increase if only comprehensive renovations were funded.		3	Annual reports about potential CO2 reductions by Kommunalkredit Public Consulting. Comprehensive evaluation of the program years 2011 – 201 will be carried out until June 2014.
EU Target: Reducing GHG emissions by 20% in 2020 with respect to 1990. National Target: Reducing Austria's GHG emissions by 16% with respect to 2005	GHG emissions in Mio.t CO_{2e}	Climate initiative "klima:aktiv"	yes	potentially high (3)			The climate initiative "klima:aktiv" constitutes a vast programme tackling different energy-relevant sectors (transport, buildings, renewable energies). Judging upon the degree of contribution to the main target requests an evaluation of the programme. "klima:aktiv". This measure also serves target b) and c)		3	Yearly monitoring of CO_{2e} reduction potential in the different areas ot the "klima:aktiv" programme through annual reports. External evaluation of the programme for 2011/2012
		Climate and Energy Fund (KLIEN)		potentially high (3)			The Climate and Energy Fonds comprises a vast array of research activities in climate change and low-carbon technologies and thus potentially contributes as well to targets a) and b).		ongoing	No evaluation of the entire programme yet
		Environmental Support in Austria (Umweltförderung im Inland, UFI)		potentially high (3)			The UFI Environmental support programme has been strongly developed towards funding of climate and energy relevant projects and contributes as well to targets a) and b)		ongoing	Has been evaluated in economic terms (Kletzan-Slamanig - Steininger, 2010). Ecological and economic evaluation for 2011-2014 forthcoming.
		Transport related mesasures (electtomobility, Masterplan Cycling, Fuel Act, klima:aktiv mobil)					These measures can contribute to mitigating the climate effects of transport. However, the use of additional economic instruments taxation) in combination with regulatory sand infrastructural approaches should be deliberated in order to accelerate changes in mobility patterns and transport demand.			
Deployment of renewable energy sources in order to increase the share to 34%	share of renewable energy, in % of gross final energy consumption	Green electricity act (Ökostromgesetz) 2012	yes	potentially high (3)			Several amendments of the Green Electricity Act were carried out, altering especially the level and duration of technology-specific feed-in tariffs. This lead to some insecurity over the long-term situations of investors. However, currently the support scheme contributes to augmenting the deployment of renewable based electricity generation. This measure also serves target a).		3	Evaluation report by E-Control
Improving energy efficiency	reduction of primary energy consumption (in PJ)	A bundle of measures which can be divided into the categories industrial buildings, production and services as well as trade and small-scale consumption, mobility, energy provision, security of energy supply and general measures have already started (for further details see also Second National Energy Efficiency Action Plan of the Republic of Austria 2011). A new energy efficiency law to implement the Energy Efficiency Directive is under creation.					The adoption of the energy efficiency act is called for. In order to meet the 2020 targets for energy efficiency (contributing also to the other climate and energy policy objectives) a comprehensive and integrated approach is required. Overlaps with other measures will have to be removed or avoided.			

				Potential contribution of measure						
Subsidiary Target	**Indicator**	**Proposed Measure**	**Assessment possible**	**to reaching main target**	**to reaching subsidiary target**	**to address CSR**	**Qualitative assessment of proposed measure**	**Measures lacking to reach target?**	**State of progress**	**Impact evaluation of measure?**
Competition and entrepreneurial environment										
Support of entrepreneurship/ Establishment of enterprises		funds for SMEs	yes	2	1		No direct effect on the dynamic of establishment of enterprises expected, possibly more influence on growth dynamics of ambitious SMEs		3	
		common action scheme for SMEs (of BMWFJ together with the WIFI of the Austrian Chamber of Commerce) for 2011/12 (accompanying and implementation program additionally to "Small Business Act)	no	2	2		target groups are established SMEs - little impact on dynamics of establishing companies		3	
		reorganization of the young entrepreneurs aid of the Austria Wirtschaftsservice GmbH	no							
		SME fitness package	yes	2	3				3	the already existing program "Innovation cheque" has been evaluated positively.
		Equity and Venture Capital	yes	2	3		Focus on ambitious establishments and young enterprises in high technology sector (except SME funds)	Improvement of legal framework for risk capital (especially VC)	3	
		service portal for companies	yes	2	2		Centralisation of all e-government offers of the federal government in one online portal. Reduction of information and transaction costs particularly relevant for SMEs and establishments	Monitoring of the costs and duration of time for "Betriebsanlagengenehmigungen"(operation plant licence?)	2	
		initative for the reduction of administration costs for companies	yes	3	2		Reform dynamics decreased during the previous two years. Reform of the GmbH and simplification of trade regulations (Gewerbeordnung) has been announced for next year.	In the course of the reform of trade regulations (GewO) qualification certificates and regulations should be checked (particularly the recognition of foreign qualifications)	2	administration costs have been lowered by 564 million Euros by 2010, by end of 2012 one billion Euros of reduction of administration costs should be achieved.
Fostering competition		Strengthening the federal competition authority (reform of competition law)	yes	3	3	3		Increasing the number of competent staff in the federal competition authority to effectively handle the workload	2	na
Fostering competition		Removing barriers to competition in liberal professions	yes	1	1	1	Notaries are now open for EU citizens	As long as the number of notaries is limited, there will be no effective boost to competition	3	na

8. Potential impact on GDP of measures relevant for CSR announced in the new government programme

CSR	CSR subcategory	Short title of measure	Assessment	
			Short-term effect of measure (t<2)	Medium-to long term effect (t>2)
CSR2: Pensions and older workers	harmonisation of pensionable age for men and women	No measure		
	enhance older workers employability	Reform of old age part-time scheme		
		Workplace design, occupational safety	+	+++
		Health Road	+	+++
		Reform of disability pension	0	+
		Fit-2-work	+	+++
		ALMP directed at elders	+	+++
		Increasing incentives for extending work-life (e.g. partial pension, postponing bonus; gov. program)	0	++
		Employer side incentive - e.g. bonus malus system (gov. program)	0	+
	monitor the recent reforms restricting access to early retirement	Reform of "Hacklerregelung"	+	+++
		Amendment of Corridor Pension	0	+
		Reform of disability pension	0	+
		Account credit model	+	+
		Monitoring system (gov. program)	+	+++
	in line with life expectancy	No measure		
CSR3: Employment	Labour market participation of women	Measures improving care infrastructure, male care participation	+	+
	gender pay and pension gap	Care leave; care part-time (gov. Program)	++	++
		National Action Plan for Gender Equality	0	0
		Measures improving income tranparency	+	+
		Return-to work measures	+++	+++
		Measures reducing labour market and educational segregation	+	++
		Expansion of childcare places	+++	+++

CSR	CSR subcategory	Short title of measure	Assessment	
			Short-term effect of measure (t<2)	Medium-to long term effect (t>2)
CSR3: Employment	people with migrant background	Interpretation services, recognition of foreign qualifications	+	+
		Improving language skills	++	+++
		Early child-hood measures (free, compulsory use of kindergarten)	+	+++
		Youth coaching, apprentice coaching	0	+++
		Compulsory education (gov.program)	+	+++
		Second year of cost-free year of kindergarten (gov. Prog)	0	+++
		Part-time work for educational purposes and grants for the purpose of gaining skilled worker qualifications (gov. Program)	+	+++
	reduction of tax burden of low income earners	Decrease of income tax rate for lowest income bracket*	+	+
CSR4: Health and long-term care	Put a stronger focus on prevention, rehabilitation and independent living	Measures to reduce care incidence	0	0
		Measures to support elderly people and their caring relatives at home	+	+
	Develop a financially sustainable model for the provision of long-term care	Measures to secure the financial model	0	0
CSR5: Education	Higher education planning and drop outs	2% of GDP for higher education	+	+++
		Implementation of unit-cost based funding model, lowering student-teacher ratios	+	+++
		Further development of higher education planning	na	na
		Foster quality of research in humanities and social sciences	0	+
		Reform of university law	na	na
		Addressing asymmetric student mobility	0	+
		Reform of funding of university hospitals	0	+
		Expansion of enrolment at universities of applied sciences	0	++
		Easier recognition of qualifications from vocational training for study at universities of applied sciences	0	+

CSR	CSR subcategory	Short title of measure	Assessment	
			Short-term effect of measure (t<2)	Medium-to long term effect (t>2)
CSR5: Education	improve educational outcomes, esp. of disadvantaged young people	Package of measures to prevent truancy	+	+++
		Further expansion of all-day school forms	+	+++
		Skilled worker initiative	0	+++
	Improvement of early education	Continutation of requirement to attend institutional child-care facilities free of charge	0	+++
		Second year of cost-free year of kindergarten (gov. Prog)	+	+++
	mitigate negative effects of early tracking	No measure		
CSR6: Competition and Regulation	Strengthen the powers and resources of the federal competition authority (FCA) and monitor the implementation of the competition law reform.	Modernization of organizational structures of FCA	0	+
		Fostering transparency in antitrust proceedings	0	++
			+	+++
			+	+++
			+	+++
		Binding Rules for settlement procedures before the FCA	0	+
		Adaption of statutes of limitation in antitrust proceedings	+	++
		Devotement of cartel fines for consumer organizations	0	0
		Reversal of the burden of proof in case of potential market power abuse in the energy sector	++	+++
	Remove excessive barriers for service providers. Reviewing whether existing restrictions on entry and conduct in regulated professions are justified by general interest and fostering competition notably in the railway sector.	Commission for Deregulation	++	+++
		Standardized procedure for the reduction and simplification of regulations	++	+++
		Annual report of the federal government concerning deregulation efforts	++	+++