ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Aiginger, Karl

Research Report

Deficits and strengths in Austrian competitiveness: Applying a new concept and a European perspective

FIW-Policy Brief, No. 29

Provided in Cooperation with:
FIW - Research Centre International Economics, Vienna

Suggested Citation: Aiginger, Karl (2016) : Deficits and strengths in Austrian competitiveness: Applying a new concept and a European perspective, FIW-Policy Brief, No. 29, FIW - Research Centre International Economics, Vienna

This Version is available at:
https://hdl.handle.net/10419/185683

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

FIW Kompetenzzentrum "Forschungsschwerpunkt Internationale Wirtschaft"

bmwfw Bundesministerium für Wissenschaft, Forschung und Wirtschaft

Policy Brief No 29, January 2016

Deficits and Strengths in Austrian Competitiveness

Applying a new concept and a European perspective

Karl Aiginger

Österreichisches Institut für Wirtschaftsforschung (WIFO)

The author is grateful to Elisabeth Christen, Klaus Friesenbichler and Michael Peneder for critical comments, Dagmar Guttmann and Eva Sokoll for research assistance.

Wettbewerbsfähigkeit wird noch immer oft rein kostenmäßig definiert (niedrige Löhne, Energiepreise). Für Industrieländer und besonders Topeinkommensländer wie Österreich spielen aber Faktoren wie Innovation, Ausbildung und staatliche und nicht staatliche Institutionen (Sozialpartnerschaft, Vertrauen, schnelle Entscheidungen) eine wichtige Rolle. Und der Wettbewerbserfolg sollte nicht nur an den erzielten Einkommen, sondern auch an sozialen und ökologischen Kriterien gemessen werden. Österreich ist auch nach dieser breiteren Definition des Wettbewerbserfolges - gemessen an der Erreichung von Beyond GDP Zielen - mittelfristig ein Erfolgsmodell.

Die schlechteren Ergebnisse der jüngsten Vergangenheit erklären sich daraus, dass Österreich sich zu sehr auf jene Faktoren verlassen hat, die für mittlere Einkommensländer wichtig sind, und zu wenig in Exzellenz bei Ausbildung, Innovation und Ökologie gesetzt hat. Das soziale System diente zu sehr der Absicherung und zu wenig der Investition in zukünftige Fähigkeiten und Qualifikationen. Der öffentliche Sektor finanziert vergangene Prioritäten und Entscheidungsabläufe und besteuert den Faktor Arbeit viel zu hoch. Das Innovationssystem leidet nach guten Ansätzen in den letzten Jahren immer stärker an Budgetengpässen. Dem Ziel, ein europäischer Innovationsleader zu werden („Frontstrategie") ist Österreich daher nicht nähergekommen.

Exzellenz im Umweltbereich, bei Energieeffizienz und alternativen Energien werden zu wenig genutzt. Für eine Rückkehr zum Erfolgsweg ist ein Konzept notwendig, wie Österreich als Hocheinkommensland im Jahr 2025 auf einem „high road path" wettbewerbsfähig sein kann und welche Reformen dafür nötig sind.

1. Introduction

Competitiveness has been defined in many different ways over the past decades, starting with a narrow definition of cost competitiveness that focussed on input prices (labour, energy costs, and taxes). This was followed by a more balanced evaluation of costs and productivity and an assessment of structure, technology and quality as drivers of "input competitiveness". The outcome of the process was measured by narrow economic goals, such as a balanced external account and GDP or "outcomes".

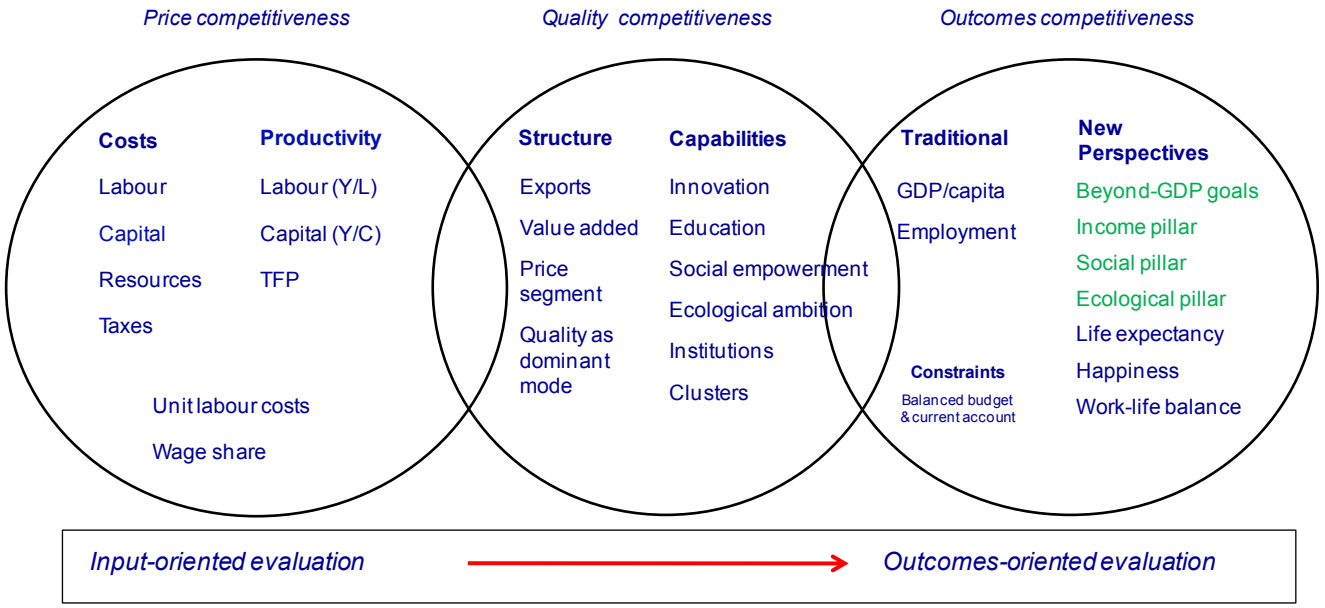
WWWforEurope (Aiginger - Bärenthaler-Sieber - Vogel, 2013) takes this change in the concept two steps further:

- First, competiveness for industrialised countries requires balanced costs and productivity as a basis; however, in the long run, competitiveness depends on five capabilities: innovation, education, the social system, institutions and environmental ambition. Costs, structure and capabilities together determine input competitiveness.
- Second, the success of an economy (outcome competitiveness) should be measured by neither a surplus in the balance of payment, nor GDP only, but in broader Beyond GDP goals. These consist of the three pillars: economic success, social inclusion and ecological sustainability.

Following this analysis, WWWforEurope[1] proposes defining competiveness as the "ability of a country to deliver the Beyond GDP goals for its citizens today and tomorrow".

[1] The research leading to these results has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement WWWforEurope no. 290647."

Figure 1: The WWWforEurope concept of competitiveness



Source: Aiginger – Bärenthaler-Sieber – Vogel: Competitiveness under New Perspectives, WWWforEurope Working Paper no 44, October 2013.

2. The necessity of a "high-road" strategy

This redefinition of competitiveness is not merely an analytical or theoretical detail. It changes the policy conclusion to be derived from the ever-present call for the competitiveness of a country. Rich countries have to pursue a "high-road strategy", defined in this paper as built on (i) quality, sophisticated products and productivity as competitive advantages, as well as on (ii) capabilities as drivers of competitiveness. For capabilities we rely in part on those known in theories of economic growth (education, innovation, institutions), but add social investment (activating labour market policy, retraining) and ecological ambitions (high standards, emission taxing). In contrast to the often-heard assumption that welfare spending and ecological standards are detrimental to the performance of an economy or a location, the evidence reveals that social investment and ecological ambitions - if pursued by strategy and implemented intelligently - can increase the performance of firms and countries. These should not be condemned as rising costs but as drivers of long run performance. The objective of a "high-road strategy" is to deliver high incomes, ecological excellence and employment, and to limit income differences. A low-road strategy (built on subsidies, tax exemptions, protection and devaluation of currency) is not feasible for rich countries, since low and middle income countries can always retaliate.

The concept of competitiveness as the ability to deliver Beyond GDP goals will now be used to assess the deficits and strengths of Europe relative to the US, and to then evaluate European countries, including Austria.

3. European competitiveness: empirical results

We now apply the concept to present a short evaluation of the competitiveness of Europe relative to the US, to reveal Europe's weakness and strength, specifically in non cost elements, then we report which European countries perform better.

3.1 Comparison between EU and US

Wages as well as productivity in the EU-28 are, on average, about one third lower than those in the US, so that overall unit labour costs are similar. Productivity differences are smaller for the total economy, but larger for manufacturing.

Regarding technology-driven and skill-intensive exports, Europe no longer trails the US; instead, Europe enjoys trade surpluses in all sophisticated sectors, while the US has trade deficits. Europe has a far larger export share in eco-industries and renewables (Aiginger ¬Bärenthaler-Sieber ¬Vogel, 2013 and 2015.).

However, Europe lags behind the US in R&D expenditures and higher education. On the other hand, Europe invests more in early education, vocational training and active labour market policies. As far as institutions are concerned, Europe has stricter rules for labour and business, lower regulatory quality, and a Rule of Law that is generally considered less stringent than in the US (tough goals, but less adherence to legislated objectives). On the other hand, the quality of the parliamentary system is better in Europe. Environmental ambition is more pronounced in Europe, as

shown in higher environmental taxes, more recycling, a higher share of environment-related technology patents and a high share of organic farming.

Summarizing all five capability groups, as mentioned above Europe lags behind in R&D and higher education – the two most important indicators for frontier countries, while it leads in indicators that are important for the transition to a more socially inclusive and ecologically sustainable economy.

The traditional output indicators put the US in the lead: per capita GDP (less in GDP per hour) and unemployment is lower. Large public deficits and debts, as well as a negative current-account balance in the US present limitations to the success of the US. For Beyond GDP goals, the picture is different. The US still leads in the income pillars. As for the social pillars, the US trails in poverty prevention and equality but has lower youth and long-term unemployment, thus yielding mixed overall results. The US clearly lags behind Europe in the ecological pillar with the exception that rules are adhered to more closely if legislated (e.g. NOx emission).

Regarding comprehensive indicators, Europe does better in life expectancy, while self-reported life satisfaction, work-life balance and happiness are higher in the US.

3.2 Intra-European results

As far as individual countries are concerned, Denmark, Sweden and Finland excel in capabilities, specifically in education and R&D expenditures. Germany and France receive a top position in innovation and social investment, but a less favourable one in education and institutions.

Cost positions do not really determine performance, which is a warning to all analyses that overemphasise low costs as a strategy for high-income countries. The assessment is different for Southern European countries whose labour cost increases were higher than productivity in the years before the crisis. The results for Greece, Italy, Romania and Bulgaria furthermore show that outcomes could considerably improve if trust in governance and institutions improved.

Using the definition of competitiveness as the ability of a region or country to deliver Beyond GDP goals should be able to stop the critique that the term competitiveness (Krugman, 1994) is dangerous and misleading, as well as the critique that competitiveness is a concept only applicable at the firm level. It is now closely linked to the economic performance of a region and allows analysing how rich countries can successfully pursue a high-road strategy.

The empirical results show that countries going for a high road, such as the northern European countries (but also Switzerland), can successfully compete by means of sophisticated capabilities. Social investment and high ecological standards are not a burden. Low-cost countries do not perform well in the long run. Success can and should be measured by broader goals (Beyond GDP goals) instead of narrowly economic ones.

4. Austria is a success model at a crossroads

4.1 Results so far

For Austria, cost competitiveness is validated by the indicators. Unit labour costs lie within the average of the 28 EU countries, per capita wages for the total economic are the fifth highest, and Austria is therefore a (moderate) high-wage country. However, since productivity (GDP per head) is also high (rank 8 of 28), average labour unit costs lie in the middle range. In the manufacturing sector the productivity lead is even higher than the wage premium, which is reflected in a large and rather stable share of manufacturing. And Austria has a large surplus in current accounts, which is an overall mirror of current price competitiveness.

Production structure is still dominated by mainstream industries[1]. High shares of labour-intensive industries and low-skilled industries have declined; historically, low shares of technology-intensive industries have increased. Nevertheless, relative positions in high-skill and high-tech industries are not as large as is to be anticipated for a rich country.

A weak point in Austria's competitiveness is that Austria is not as strong in the capabilities important for leading countries. A general evaluation of the education system reveals important weaknesses. The Pisa rating shows medium ranks for secondary schools and university rankings and evaluations disclose the lack of top universities.

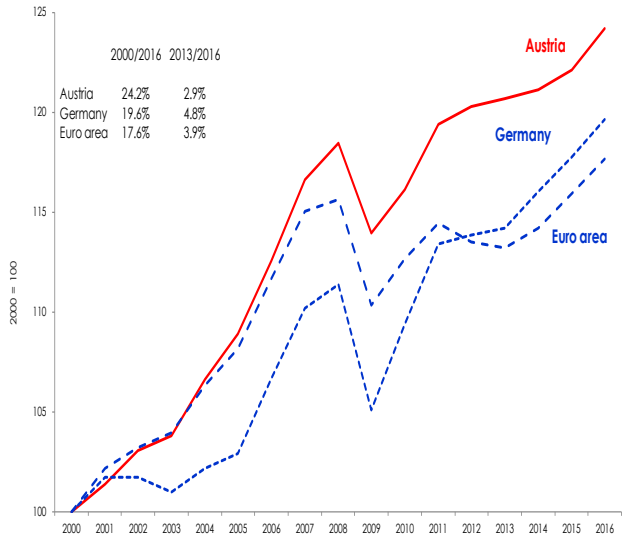
The inheritance of individual capabilities persists, while preschool training is low. On the positive side, the indicators show that vocational training is excellent and applied universities are thriving. Ecological ambitions were high up to the year 2000, but since then Austria has lost ground in energy and resource efficiency and its first-mover advantage. The export potential for environmental products has therefore no longer been fully utilised.

As far as outcome competiveness is concerned, Austria's position can be assessed as rather positive. Gross per capita incomes are high, even when estimated according to Beyond GDP criteria (deducting depreciation), but high taxes and specifically high taxes on labour reduce the disposable income of workers and per capita consumption. Social indicators illustrate limited income inequality, low poverty and unemployment. The good position in environmental indicators (and slow progress) has already been mentioned.

[1] Mainstream industries can be defined as a residual group of branches which neither stick out by a particularly large capital- or labor intensity nor by a particularly high share of R&D or marketing compared to turnover. Accordingly it is a quite heterogeneous group including for example a large part of mechanical engineering.

Evaluating the three pillars (income, social and ecological) together gives a top position. This is also confirmed by rather conventional indicators. Real economic growth (GDP) has been higher than in most other countries: between 2000 and 2013 average growth was 1.5% in Austria compared to 1.0% in the Euro area and in Germany.

Figure 2: Growth of real GDP



Source: WIFO (December 2015).

4.2 European markets break away

The Austrian success model has more recently been under strain. In the past four years economic growth has been below 1% and over the past two years below the European average. From year to year, Austria has slid down in the international competitiveness ratings. The indicators leading to this downgrade are the large public sector, high taxes, cumbersome bureaucracy and inflexible labour markets. Some of these arguments are real detractors for Austrian dynamics, but in principle they are not new. However, other countries are improving in these areas and new competitors have entered Austria's markets.

In the last four years Austrian exports have not grown as strong as in the past. One reason for this is that in the past Austria profited from the opening of new, fast-growing markets in the neighbourhood – first the adjacent countries Hungary, Czech Republic, Slovakia and Slovenia, then the other new member countries and South-Eastern Europe. The Black Sea region and former Soviet countries would have been the next market to boost exports. Austria started increasing exports in these regions, but they are now hit by political and economic problems, as are exports to Northern Africa. In light of these developments the Austrian government's goal to regain market shares in Iran for example, after the phasing out of sanctions has started, is a very important initiative for regional diversification.

Consumption has become less dynamic in the more recent years, since real income per worker has declined over the past six years. Wage increases, looking acceptable and sometimes even too high for firms, turned out as losses in real disposable income, since the inflation rate in Austria is now higher than in other countries and progressive income taxes take a larger share of gross incomes.

Investment is sluggish, since capacities are not fully utilised and anticipated market growth is low. Public investment is also low, since budget deficits have to be cut, and public expenditures are not shifted from past priorities and administrative expenditures to future-oriented categories such as education, innovation jungles and the greening of the economy. The competence jingle between the different layers of government is not streamlined; this leads to inefficiencies and high costs for firms.

4.3 Past strengths do not suffice

These mainly demand-side elements which decelerate short and medium term growth in Austria point to the problem that the structures and capabilities on which Austria´s success is built are adequate or even excellent for a medium income country, but not sufficient for a top position. Austria has excellent vocational training and an education system that provides medium skills[2]. Expenditures on research and development were catching up with leading countries, but there are only few technology segments in which Austria is leading. Expenditures are far from the planned frontier trajectory. Austria is losing ground in innovation rankings, due to the persistent lack of venture capital[3] and low shares of researchers in technical disciplines.

5. Looking ahead

5.1 Austria in 2025

Based on this situation, it is crucial to design a reform strategy with which Austria can regain its lead in income dynamics. This has to be developed in an environment of increased uncertainty and in which new competitors are pursuing Austria's former position as a provider of medium and top medium quality.

Regaining a top position requires deep reforms in the education system, starting with higher expenditures and better monitoring of preschool education. Cur-

[2] In November 2015 Austrian government started a reform of the education system improving the autonomy of schools, which was one of the weakest in Europe, and streamline school administration.

[3] Recent initiatives of the Austrian Federal Ministry of Science, Research and Economy to establish a Business Angel Funds, improve financing of small and medium sized firms, and venture capital as well as the Cleantech Program try to improve this weakness see http://www.bmwfw.gv.at/Presse/AktuellePresseMeldungen/Seiten/MitterlehnerMahrer-Österreichs-Nationalstiftung-fördert-internationales-Startup-Programm-mit-vier-Millionen-Euro.aspx and http://www.bmwfw.gv.at/Wirtschaftspolitik/Standortpolitik/Seiten/Information_Alternative_Fruehphasenfinanzierungsinstrumente.aspx.

rently, Austria belongs to the countries with the highest inheritance of life chances: parental income, regional and family background determine education, income and life chances. Even life expectancy is dependent on the type and duration of education chosen: Austrians with a university degree live three years longer on average than those with only a primary education. The fact that one fifth of young people cannot read a comprehensive text is dramatic evidence of the failure of the education system. The capabilities of migrants have to be utilised; migrants (including the second generation and refugees) have to be integrated in schools, society and labour as quickly as possible, so that the advantages of an increasing labour force can be used for welfare generation.

Austria has to go for a frontier position in innovation. This not only means that public expenditures on R&D have to be prioritised in the long period of budgetary strains ahead; private money also has to be mobilised. Public research grants have to be tendered competitively and clustered in promising areas of basic and applied research. Young and innovative firms have to gain access to venture capital and crowd financing. Universities have to become excellent in teaching as well as in research.

A smarter and more efficient public sector has to serve the needs of the citizens and the economy. Up to now, each new task has been added to the previous one, resulting in a public sector steering 52% of the economic output (including transfers).

Table 1:Low-Road vs. High-Road Strategies

	Low-Road Strategy	High-Road Strategy
Competitive advantage	Low costs (wages, energy, taxes) and standards	Quality, productivity, product sophistication
Growth drivers	Subsidies, dual labour market, inward FDI	Innovation, education, universities
Ambitions	Cost advantage, flexible labour, long working hours	Social empowerment, ecological excellence, trust
Instruments	Protectionism, devaluation (external, internal)	Business environment, entrepreneurship, dialogue
Objectives	Catching up in income, elimination of disequilibria	Beyond GDP goals, three pillars

5.2 The wrong assessment for Europe and Austria

The availability of new energy sources, especially liquefied gas and gas extracted via new technologies such as fracking has caused US energy prices to plummet and has been regarded as a chance to revitalise US manufacturing. Spillover effects to Europe exist, as US coal is now exported. For this reason and since European Carbon Pricing has broken down, coal is increasingly used in Europe (substituting gas and limiting the chances of renewables).

Energy-intensive industries are calling for Europe to match the US's now amplified comparative advantage in energy prices: Europe should copy the US in exploiting similar cheap energy sources (such as fracking for gas). And Europe has already been assisting its energy-intensive industries with free allowances for CO2 emissions. It has also postponed restoring the CO2 emission trading system or taxing fossil fuels and kerosene. If the car industry does not meet standards, planned or even legislated emission limits are extended. Tests which are known to be unrealistic, are continued.

As previously reported, Austria had a top performance in ecological ambitions up to 2000 and has since lost ground according to many indicators. It has also failed to achieve its self-proclaimed Kyoto goal. It is not ahead in developing automotive parts for the alternative engines, which will dominate the car industry in ten years after decarbonisation strategies will be implemented.

5.3 The better alternative

High ecological standards are often feared by firms, as they are expected to reduce cost competitiveness. Taxes for gasoline are opposed by consumers, since they reduce consumption choices. This need not be the case if the higher ecological ambitions are implemented in a consistent and well-communicated long-run strategy. Higher costs for firms can be compensated by higher support for research or better training of the labour force in applied universities or vocational schools. The higher cost of gasoline for consumers can be compensated by a reduction in labour taxes and social contributions. If this is done, dynamic advantages accrue: firms will raise energy and resource productivity, and this will save emission taxes or ex post expenditures for environmental repairs. Consumers will choose a more energy-efficient car, switch to public traffic or to cars with alternative engines. They may car-share instead of buying a car. They will invest in better insulated houses (low energy or even energy plus housing). Reducing ecological standards will lower costs in the short run, but increase them in the long run.

Economic analysts have long addressed the first-mover advantages of "sophisticated" consumers and ambitious environmental standards (Porter, 1990; Stern, 2007). The first mover incurs higher costs (which could be partly covered or lowered by the government). Costs of new technologies can rapidly decline with a prudent public procurement policy. Favouring long-run solutions leads to a higher potential for exports.

In principle, European industrial policy has two options for addressing the challenge of lower US energy costs: first, to try and lower its own energy costs; and second, to boost energy efficiency and to reduce costs of innovation and skill upgrading (if improvements in energy efficiency alone cannot bridge the cost difference). The first answer follows the logic of 'old' in-

dustrial policy along a low road path. If input costs are too high, an attempt should be made to get cheaper inputs or subsidise the firm. The second answer is to try to increase productivity and/or to foster factors which increase tomorrow's competitive advantages, specifically those fitting the long-run goals of the society. This is the core of the "new" industrial policy along a high road path.

Thus instead of copying the low energy price strategy of the US, Europe and Austria – as one of its richest countries – should go for top energy efficiency and renewables. And if a cost difference nevertheless remains, firms should get cheaper funding for R&D and be provided with a highly qualified workforce through labour market policy, retraining and improved education. Empirical evidence shows that Europe trails the US in innovation and top universities, and Austria does not follow its frontier strategy in innovation. At the same time, the manager surveys show that a highly qualified work force and innovation determine the long-run success of firms.

6. Summary

Austria has successfully claimed a leading position in Europe over the past decades. GDP per capita is among the top five countries in Europe, unemployment is low, and the current account has a persistent and large surplus. Austria is competitive, as revealed by outcomes. On the input side, wages are above average, as is productivity, so that cost competitiveness is also given. Consequently, GDP has increased by 23.7% since 2000 (cumulative 2000/16).

Since 2013, growth rates in Austria have been below 1%. In the last two years and in the forecast for 2016 and 2017, GDP growth in Austria is also lower than in the euro area. One reason for this is that market shares in the world market are decreasing and neighbouring countries – specifically prospective new markets in southeast Europe and the Black sea area – have broken down. Exports to Germany are sluggish, since Austrian firms (e.g. in the car industry) are being replaced by newcomers as providers of medium tech products. Deeper roots are that Austria has relied on incomes "rising with the water" (market growth) without striving for excellence, deep innovation and smart differentiation into related product markets. And the concentration of Austrian exports to the low growing European market is still too large.

In this situation, Austria has to develop a new strategy for sustaining a good position achieved and regaining economic dynamics and high employment. Such a strategy has to boost innovation by increase public and private funds even in times of budget consolidation. Welfare system should be reformed from the focus of protection to an investment approach (including preschool education and retraining for elder people), ecological standards should rise continuously and Austria should try to become a leader in energy efficiency renewables and decarbonisation. Following the successful Paris Summit in December 2015 new infrastructure and new houses should be built only with zero or plus energy, and cars, busses and trucks should radically reduce emissions and gradually switch to alternative engines. The country and the industry taking the lead in decarbonisation will profit, those lagging and hesitating will have the costs. Increasing autonomy of schools should be implemented quickly, administration further streamlined, the school system should serve better than now to eliminate differences in life chances according to income, region and gender.

Such a strategy is currently being developed by WIFO under the heading of "Europe 2025". It should boost the capabilities important to frontier countries and make social and environmental ambitions compatible with "high-road" competitiveness. Such a strategy has been worked out for Europe by 33 research teams under the leadership of WIFO in the WWWforEurope project. Designing a new growth path for Europe provides many reform options for Europe as well as for Austria.

References

Aghion, Ph., Boulanger, J., Cohen, E., Rethinking Industrial Policy, Bruegel Policy Brief, 04/2011.

Aiginger, K. (1998), "A framework for evaluating the dynamic competitiveness of countries", in Structural Change and Economic Dynamics, 9(2), pp. 159-188.

Aiginger, K. (2006), "Competitiveness: From a Dangerous Obsession to a Welfare Creating Ability with Positive Externalities", Special Issue on Competitiveness, Journal of Industry, Competition and Trade, 6(2), pp. 161-177.

Aiginger, K. (2012), "A systemic industrial policy to pave a new growth path for Europe", WIFO Working Paper 421/2012.

Aiginger, K., Bärenthaler-Sieber, S., Vogel, J., Competitiveness under New Perspectives, WWWforEurope Working Paper no 44, October 2013.

Aiginger, K., Bärenthaler-Sieber, S., Vogel, J, Competitiveness of EU v. US, WWWforEurope Policy paper, no 29, 2015.

http://www.foreurope.eu/fileadmin/documents/pdf/PolicyPapers/WWWforEurope_Policy_Paper_029.pdf

Fagerberg, J. (1988), "International Competitiveness", Economic Journal, 98(391), pp. 355-374.

Fagerberg, J., Srholec, M., Knell, M. (2007), "The competitiveness of nations: why some countries prosper while others fall behind", World Development 35(10), pp. 1595-1620.

Fleurbaey, M., (2008), beyond GDP: Is There progress in the Measurement of individual Well-being and Social Welfare?, August 1, 2008. http://www.stiglitz-sen-fitoussi.fr/documents/Beyond_GDP.pdf

Hemerijck, A. (2012A), Changing Welfare States, Oxford: University Press, 2012.

Hemerijck, A. (2012B), "Retrenchment, redistribution, capacitating welfare provision, and institutional coherence after the Eurozone's austerity reflex", Sociologica, 1, doi: 10.2383/36893.

Hölzl, W., Reinstaller, A. (2011), "On the heterogeneity of sectoral growth and structural dynamics: Evidence from Austrian manufacturing industries", Applied Economics, 43(20), pp. 2565-2582.

Janger, J., Hölzl, W., Kaniovski, S., Kutsam, J., Peneder, M., Reinstaller, A., Sieber, S., Stadler, I., Unterlass, F. (2011), "Structural Change and the Competitiveness of EU Member States", WIFO, Vienna.

Ketels, Ch.H.M. (2015), Competitiveness and Clusters: Implications for a New European Growth Strategy, WWWforEurope Working Papers, Issue 84, February 2015.

Ketels, Ch.H.M., Protsiv, S. (2013), "Clusters and the New Growth Path for Europe", WWWforEurope Working Paper No. 14.

Köppl, A., Kletzan-Slamanig, D., Köberl, K. (2013), "Österreichische Umwelttechnikindustrie, Export und Wettbewerbsfähigkeit", WIFO, Vienna.

Krugman, P. (1994), "Competitiveness: A Dangerous Obsession", Foreign Affairs 73(2), pp. 28-44.

Leoni, T., Welfare state adjustment to new social risks in the post-crisis scenario. A review with focus on the social investment perspective, Issue 89, Number of Pages: 44, March 2015.

OECD (2011), "How's life? Measuring well-being", OECD Better life Initiative, Paris.

Peneder, M. (2001), Entrepreneurial Competition and Industrial Location, Edward Elgar, Cheltenham, UK.

Porter, M.E. (1990), The Competitive Advantage of Nations, Free Press, New York.

Porter, M.E., Rifkin, J.W. (2014), An Economy Doing Half its Job, Findings of Harvard Business School's 2013-14 Survey on U.S. Competitiveness, September 2014.

Stern, N. H., (2007), The economics of climate change: the Stern review, Cambridge Press university.

Unterlass, F., Reinstaller, A., Vogel, J., Friesenbichler, K. (2015), "The relationship between export and technological specialisation profiles across EU Member States and regions and the identification of development potentials", Background report for the European Competitiveness Report 2015, European Commission: DG Growth.

Stiglitz, J.E., Sen, A., Fitoussi, J.-P. (2009), "Report by the Commission on the Measurement of Economic Performance and Social Progress", Paris.

WWWforEurope, Welfare, Wealth and Work for Europe: Europe moving towards a new path of economic growth and social development http://www.foreurope.eu/.

Autor:
Karl Aiginger
Leiter
Österreichisches Institut für Wirtschaftsforschung
Telefon: +43 1 7982601 - 210
Email: Karl.Aiginger@wifo.ac.at

Impressum:
Die Policy Briefs erscheinen in unregelmäßigen Abständen zu aktuellen außenwirtschaftlichen Themen. Herausgeber ist das Kompetenzzentrum „Forschungsschwerpunkt Internationale Wirtschaft" (FIW). Das Kompetenzzentrum FIW ist ein Projekt von WIFO, wiiw und WSR im Auftrag des BMWFW. Die Kooperationsvereinbarungen des FIW mit der Wirtschaftsuniversität Wien, der Universität Wien und der Johannes Kepler Universität Linz werden aus Hochschulraumstrukturmitteln gefördert. Das FIW bietet den Zugang zu internationalen Außenwirtschafts-Datenbanken, eine Forschungsplattform und Informationen zu außenwirtschaftsrelevanten Themen.

Für die Inhalte der Policy Briefs sind die AutorInnen verantwortlich.

Kontakt:
FIW-Projektbüro
c/o WIFO
Arsenal, Objekt 20
1030 Wien
Telefon: +43 1 728 26 01 / 335
Email: fiw-pb@fiw.at
Webseite: http://www.fiw.at/