#### 08 PREFACE AUSTRIAN PETROLEUM INDUSTRY REPORT 2018



**Thomas Gangl, APIA President** 

At the end of June 2019, Manfred Leitner, OMV Executive Board member, retired from his many years of service at the helm of the Austrian Petroleum Industry Association (APIA), proposing to appoint me as his successor. Having become a member of the APIA Board in November 2016, it will be an honour for me to chair the executive board. I would ask you to continue your effective support for the Association and extend our successful cooperation, for which I want to express my appreciation. At the same time let me use this publication to share with you some ideas on "climate change" and the challenges facing us in the petroleum industry over the coming years.

For more than two decades, the European Union has been pursuing the ambitious goal to be a world leader in international climate policy. The European petroleum industry can make a critical contribution to this objective, both by reducing CO<sub>2</sub> emissions in refineries and by cutting down on greenhouse gas emissions from liquid fuels. Developing innovative energy technologies and highly efficient sources of energy provides business with flexibility and an opportunity to find the optimum solution for the supply of energy to every sector and for every application. Given their specific properties, liquid fuels are very important, especially in the transport sector.

Powering concepts and future fuels are the key to progress in mobility. But for the next decades we cannot do without hydrocarbon-based fuels. It will take plenty of innovation and large-scale investment until the time when feasible alternatives have come into widespread use and penetrated the market. Long-term trend scenarios show that combustion engine-powered vehicles will still play a major role in mid-century, especially when it comes to road transport and long-distance travel by passenger cars and coaches, in aviation and even in shipping.

Improvements in vehicle efficiency are constantly progressing. In the medium term, many types of engines, from battery-powered to hydrogen-powered and those running on conventional fuels, will co-exist and be combined in a multitude of ways.

Vision 2050 by FuelsEurope, the umbrella organisation of European refineries, aims to preserve for business and consumers the specific advantages of petrol, diesel and other petroleum products while still striving to achieve the ambitious climate targets in Europe. Liquid fuels with a low content of greenhouse gas can be produced by a range of technological processes that enable low-emission mobility for all transport sectors across the entire life cycle. They include biofuels, hydrogen, electricity-based liquid fuels (power-to-liquids) and processes to separate and utilise carbon. When we look at the growth rates of and requirements by aircraft, ships and lorries, electric mobility by itself will not suffice. Liquid fuels will continue to be needed, regardless of how greatly electric mobility is encouraged and traffic is reduced and made more expensive.

Permit me a further thought regarding crude oil as a raw material for producing synthetic substances. Plastic basically is good in terms of the ecological balance, and it is hygienic and light-weight. In many fields, such as light-weight cars, energy supply and medical products, it is the more sustainable alternative. Without plastics there would not be wind-powered or photovoltaic plants. When it comes to their disposal, the trend clearly points at recycling and closed substance cycles. While global demand for petrol and diesel is projected to stagnate from 2035 onward, demand for petrochemicals is set to grow continually. Accordingly, demand for oil will in the future be mostly driven by the plastic industry rather than the transport sector. In the future, we will therefore conceive of crude oil not just as a source of energy but - even more and mostly so - as a valuable and indispensable raw material to support our standard of living.

#### Thomas Gangl President of the Austrian Petroleum Industry Association (APIA)

Executive Board member for Refining & Petrochemical Operations, OMV Aktiengesellschaft

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THE AUSTRIAN ECONOMY 2018

# ECONOMIC GROWTH REAL PLUS 2.7%

**Economic growth** At a plus of 3.7% the global economy was 0.1 percentage points below last year's growth level. According to figures by the Austrian Institute of Economic Research WIFO, the Austrian economy in 2018 managed a real growth rate of 2.7%, against a nominal growth rate of 4.4%. Increasing by 2.6%, the real gross domestic product (GDP) thus expanded at a slightly faster rate than in 2017, even though the growth apex was already reached at the start of the year. Throughout 2018, growth was propelled by the economy as a whole, driven by domestic demand as much as by foreign trade. Private consumption once again produced a stable base, contributing 0.9 percentage points to the increase in GDP. Since exports expanded at a stronger pace than did imports, foreign trade once again fuelled GDP growth (also by 0.9 percentage points). The index of industrial production recorded a plus of 4.7%, almost as positive as in the previous year. Austria's nominal GDP was about € 386.1bn in 2018.

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**Exports** Austria's foreign trade in goods, principally characterised by the export of machines, vehicles and processed goods, continued to thrive in 2018, growing at a nominal rate of 5.7% to  $\in$  150bn. The main sales markets for Austrian exports were once again Germany, the US and Italy. The biggest increase in demand from the ten top Austrian export markets came from Poland, China, the US, Italy and the UK. Imports rose by 5.5% to  $\in$  155.7bn. At a minus of  $\in$  5.7bn, the trade balance was negative in 2018, with energy net imports rising to  $\in$  9.2bn or a plus of 17%. When looking at goods and services together, the current account surplus went up to  $\in$  8.99bn in 2018.

**Inflation rate** In 2018, the WIFO Economic Report found an inflation rate (measured against the CPI) of 2.0%, slightly below the level for 2017 (2.1%) and clearly above those for 2016 and 2015 (0.9% each). Inflation in 2018 was driven mostly by an increase of prices for housing, water and energy, transport, restaurants and hotels. Set against the Harmonised Index of Consumer Prices, inflation in Austria, at 2.1% compared to 2.2% in 2017, was once again higher than the euro zone average of 1.8%.

Prices for petrol and diesel rose by 7% and 10% respectively, as an annual average. The price index for mobility and transport, which comprises several categories of expenditure of relevance for transport such as maintenance and repairs of vehicles and transport services, increased by 2.9%. Consumption of petrol and diesel (including biogenic share) had growth rates of 2.4% for petrol (1.66mn tons) and 0.6% for diesel (6.99mn tons).

**Incomes** Per capita wages and salaries before tax (including those for part-time workers and marginal part-timers) rose by 2.5% in 2018, a markedly higher rate of increase than in the previous year (+1.4%), mostly due to the economic upswing that had started in 2017 and continued on into 2018. Reduced by an inflation rate of 2%, the per capita real growth amounted to 0.5%. Before-tax pay in 2018 was greatly influenced by collective bargaining, especially the negotiation round of autumn 2017. A booming economy that boosted employment, together with relatively high pay rises, increased the wage bill by 4.7% in 2018.

**Employment** Thanks to the flourishing economy, employment rates went up and unemployment sank compared to 2017. The number of active dependently employed rose by 88,039 or 2.5% to a total of 3,661,127, many of them full-time jobs. The unemployment rate as counted by the national method dropped by 0.8 percentage points to 7.7%. When calculated by the internationally customary Eurostat method, the rate declined by 0.7 percentage points to 4.9%. Even the long-term unemployed profited from the upswing. Self-employment went up only slighted to 498,500 (a plus of 0.7%) as an average of 2018, according to WIFO's computation.

# **KEY FIGURES AUSTRIAN PETROLEUM INDUSTRY**

		2018	2017	2016	2015	2014
Member companies.						
sold production, employees						
Number of association companies		28	27	27	28	28
Sold production	€mn	10,171	8,319	7,228	8,097	10,124
Total employees		4,145	4,054	3,999	4,412	4,269
thereof blue-collar		796	787	787	876	847
thereof white-collar		3,261	3,172	3,107	3,422	3,322
thereof apprentices		88	95	105	113	100
Production, import, transport						
Domestic oil production (incl. NGL)	tons mn	0.68	0.74	0.81	0.91	0.94
Domestic natural gas production	m³n bn	0.97	1.74	1.25	1.18	1.24
Crude oil import	tons mn	8.31	7.32	7.21	8.11	7.51
Natural gas import	m³n bn	7.55	8.13	7.18	5.72	7.40
Oil transport <sup>1</sup>	tons mn	8.4	7.4	7.3	8.1	7.7
Oil refining (incl. semifinished products)	tons mn	9.8	9.0	8.9	9.5	9.3
Consumption, products						
Domestic oil consumption <sup>2</sup>	tons mn	11.28	11.26	11.13	10.80	10.65
Petroleum imports – products <sup>2</sup>	tons mn	6.67	6.70	6.65	6.16	6.02
Petroleum exports – products <sup>2</sup>	tons mn	3.30	2.90	2.91	2.94	2.77
Domestic gas consumption						
(end consumer)	m³n bn	8.00	8.30	7.85	7.55	7.00
Filling stations, vehicles						
Number of filling stations total <sup>3</sup>		2,699	2,685	2,670	2,641	2,622
thereof major branded		1,357	1,347	1,352	1,357	1,373
Approved vehicles		6,895,596	6,771,395	6,654,504	6,545,818	6,466,166
thereof cars and station wagons		4,978,852	4,898,578	4,821,557	4,748,048	4,694,921

<sup>1</sup> Adria-Wien Pipeline (2016 merged with OMV Refining & Marketing GmbH)

<sup>2</sup> Without petrochemicals or in part without pure biofuels
<sup>3</sup> Excluding 286 agricultural diesel outlets (2017: 286; 2016: 285; 2015: 285; 2014: 298

INTRODUCTION TO THE ASSOCIATION

AUSTRIAN PETROLEUM INDUSTRY REPORT 2018



#### Christoph Capek, APIA Managing Director

The Austrian Petroleum Industry Association (APIA, or FVMI to give it is proper German title) operates within the scope of the Austrian Federal Economic Chamber (WKÖ). Together with its elected functionaries and staff members at the FVMI office it acts as expert interest group for its members. As an Austrian-wide association of petroleum-based industries it is organised, on the basis of the Act Governing Economic Chambers, as a corporation under public law. Its members are Austrian companies that operate upstream (exploration and production of crude oil), midstream (transport in pipelines and storage) and downstream (processing at their own or associated refineries and sale of petroleum products). At present, the Association comprises 28 petroleum companies active in the up-, mid- and/or downstream sectors.

The FVMI provides specialised and organisational coverage of issues of relevance to the industry, such as environment and energy (energy efficiency, climate strategy, emissions trading, regulations governing fuels and biofuels, standards, waste water and garbage, etc.), taxation, commercial law and social policy. On a daily basis it gathers and coordinates sector-specific information and communications to members on general economic subjects.

One of its primary tasks is to coordinate and draft comments within the scope of reviewing EU directives and national draft laws and regulations for ministries and other government authorities. In doing so, it consults and harmonises its work with the respective expert departments of the Austrian Economic Chamber, its industrial department and, within the frame of a long-term cooperation agreement, with the Chemical Industry Association.

Next to comprehensively representing its members' interest at the legal level, one of the Association's priority responsibilities is the weekly poll of petrol station prices which requires a neutral assessment by the FVMI office and serves to facilitate a publicly accessible EU-wide comparison by the European Commission.

Once a year, the FVMI produces statistics on petrol stations to serve the entire petroleum industry, which reflect the number of petrol stations broken down by brands and changes vis-à-vis the previous years, as well as a break-down by Austrian Länder (states).

Each January, the Association negotiates a new collective bargaining agreement with the Union of Salaried Private Sector Employees and the Print, Journalism and Paper Sector (GPA-djp) and the Production Workers Union PRO-GE for about 4,100 employees, which enters into force at the start of February. The collective bargaining agreement covering all employees of the Austrian petroleum industry is published in a paper version as well as on the Association's homepage (also in English) and is filed in the database of collective bargaining agreements kept by the Austrian Economic Chamber.

The FVMI office organises regular and ad-hoc working group meetings for segments such as retail sector, commercial business, statistics, HSSE, REACH, transport logistics, petrol station technology, biofuels and waste management. Examples of cooperation with other organisations in the field and the technical and financial assistance frequently extended are Österreichische Gesellschaft für Erdölwissenschaften (Austrian Society for Petroleum Sciences; ÖGEW) and its annual autumn event, the main office of Grubenrettungs- und Gasschutzwesen GmbH (mine rescue and gas protection services) and the Platform for SCC (Safety Certificate Contractors).

The Austrian Petroleum Industry Association acts as a link between business and the public. Reflecting the vagaries of the crude oil and product markets, the Association repeatedly receives enquiries from media as well as public and private institutions, which need to be responded to. Accordingly, the Association perceives itself and its PR work as the mouthpiece of the petroleum industry. Press releases, newsletters and fact sheets on the petroleum market in Austria are typical examples of its work, as is its homepage. The FVMI's annual report includes all the relevant facts and figures on the Austrian petroleum industry across many years. THE AUSTRIAN PETROLEUM INDUSTRY

AUSTRIAN PETROLEUM

OMV and RAG Austria explore and produce crude oil and natural gas in economically relevant quantities in the Vienna Basin (Lower Austria) and the molasse zone (Upper Austria and Salzburg). In 2018, production of crude oil continued its decline, by 8.1% to 681,842 tons including NGLs (of which 664,009 tons were crude oil in the narrower sense). As to natural gas, production contracted substantially vis-à-vis the previous year, by 44% to 969,223mn m3n, of which 827,327mn m<sup>3</sup>n were natural gas in the narrower sense (i.e. without petroleum gas). Of the crude production (including NGLs), OMV was responsible for 88%, with RAG contributing 12%. Total production amounted to about 682,000 tons, of which 89% were obtained in the Vienna Basin and the remaining 11% of the crude (including NGLs) came from the molasse zone. Of the natural gas production (including petroleum gas), 85.5% derived from OMV and 14.5% from RAG, with 50.5% pumped from the Vienna Basin and 49.5% contributed by the molasse zone.

The assessments and estimates of Austrian hydrocarbon reserves carried out by the Geological Survey of Austria GBA found reserves of crude oil (including NGLs) of about 5.6mn tons as of end of 2018. This figure covers total proven deposits. The scope of reserves on Austrian territory has thus remained unchanged and will cover about eight annual production volumes if the lower production figures of 2018 are maintained. Proven reserves of natural gas (excluding inerts) that have a high potential of being exploited amount to 7.6bn m<sup>3</sup>n, which covers not quite eight years at the production volume of 2018.

### NATURAL GAS STORAGE

In Austria, natural gas is stored by OMV at Schönkirchen and Tallesbrunn and by RAG at Puchkirchen, Haidach, Nussdorf/Zagling, Aigelsbrunn and 7Fields. The reservoirs are generally filled during the summer months and partially emptied during the heating season. Austria has recently built up capacities of about 8.4bn m<sup>3</sup>, of which 2.4bn m<sup>3</sup> are stored by OMV and 6.0bn m<sup>3</sup> by RAG. The total reservoir volume is used by Austrian as well as international enterprises.

#### **CRUDE OIL IMPORTS**

In 2018, OMV imported altogether 8.3mn tons of crude oil into Austria, a plus of 13.5% over the previous year. Imports came from 14 countries, which contributed greatly varying quantities. First in importance was Kazakhstan which supplied almost 3.1mn tons, followed by Libya (1.9mn tons), Iran (1.0mn tons) and Azerbaijan (0.8mn tons).

To safeguard domestic supply it is necessary every year to import considerable quantities of finished products. Diesel imports remained the same as in the previous year (about 4.5mn tons), petrol imports made for 725,000 tons and imports of extra light heating oil came at 591,000 tons, provided chiefly by Germany, Italy, Slovakia and Slovenia. Altogether about 5.8mn tons of fuels and extra light heating oil were imported in 2018. Total imports of petroleum products (excluding crude oil) amounted to 6.9mn tons in 2018. Total exports of petroleum products were about 3.6mn tons (liquefied petroleum gas, petrol, diesel, extra light heating oil, lubricants and bitumen).

Two pipelines supply the Schwechat refinery near Vienna with crude oil from abroad: the Transalpine Pipeline TAL and in a row the Adria-Vienna Pipeline AWP, owned by OMV.

### **CRUDE OIL PROCESSING**

Refineries process crude oil into a large number of highquality products, ranging from various gaseous and liquid fuels to petrochemical basics, lubricants and bitumen. Underlying processes are typically highly complex and require a multiplicity of plants. The four key stages of processing crude oil are distilling, desulphurisation, refinement and blending.

The Schwechat refinery owned by OMV is the only refinery operating in Austria. Schwechat has the requisite capacities to process 9.6mn tons of crude oil per year, and in 2018 it employed 739 staff (including trainees).

In 2018, the total processing volume was 9.1mn tons of crude oil (2017: 8.1mn tons). Capacity utilisation was thus 94% (2017: 86%). Seven percent of the processed crude oil came from domestic production and about 93% derived from non-domestic sources. Semi-finished products made up 0.7mn tons (2017: 0.9mn tons). From the quantities supplied, the refinery in 2018 produced diesel fuels (39%), petrol (23%), extra light, light and heavy heating oils (11%), petrochemical basics (11%), jet fuel JET A1 (9%), bitumen (4%) and other products (3%). Diesel and petrol had biogenic components admixed, altogether about 210,000 tons of FAME and 90,000 tons of ethyl alcohol in 2018.

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In combination with the depots at Lobau and St. Valentin, the refinery at Schwechat constitutes Austria's largest industrial complex. The refinery and its depots at Schwechat, Lobau and St. Valentin have storage capacities totalling some 3.4mn m<sup>3</sup>.

At its Schwechat refinery, OMV pursues research projects, chief among them the socalled ReOil process that converts plastic waste into synthetic crude oil. The ReOil pilot plant has a throughput capacity of up to 100 kg of plastic waste per hour and became operational in early 2018.

### STORAGE TANKS

Daily supply of fuels and heating oils to the population and business in Austria is ensured not just by the OMV depots at Lobau, St. Valentin, Graz and Lustenau, but also by product depots operated by BP, Danuoil, Eni, MOL and Shell. The compulsory emergency reserves (CERs) of petroleum products prescribed under the Oil Stockholding Act of 2012 are mostly kept at the depots run by Erdöl-Lagergesellschaft (ELG), TAL (in Trieste), OMV and RAG.

### PETROLEUM CONSUMPTION

In 2018, consumption of petroleum in Austria remained almost unchanged at 11.3mn tons (+0.24%) when including all petroleum products such as fuels, gas oil for heating purposes (extra light heating oil), light and heavy heating oil, lubricants and bitumen, but excluding petrochemical basics. Petrol and diesel consumption in Austria amounted to 8.65mn tons (just below 10.5bn litres), according to statistics run by the Federal Ministry of Sustainability and Tourism. Petrol sales rose by 2.5% against 2017, diesel sales increased by 0.6%, once again exceeding the previous year's peak figure. Jet fuel consumption was 831,000 tons in 2018, 12.4% more than in the previous year. Extra light heating oil sales were 1.07mn tons or 9.4% less than in 2017. Translated into volume, this figure corresponded to just below 1.3bn litres of extra light heating oil.

#### DEVELOPMENT OF PETROL AND DIESEL PRICES

The petrol price averaged for 2018 was  $\in$  1.26 per litre, against  $\in$  1.18 per litre in 2017. In the EU, Eurosuper petrol on average cost 17 cents more or  $\in$  1.43 per lire in 2018. Diesel sold for  $\in$  1.22 per litre at petrol stations in Austria as an annual average, about 11 cents above the previous year. With the weighted average for all EU countries at  $\in$  1.34 per litre in 2018, the EU price for diesel was thus higher by 12 cents per litre and continued to be clearly above the Austrian average.

As of mid-July 2019, petrol prices were mostly made up of the following components: a 56% levy in the form of petroleum tax and VAT, 36% for the product itself, and 8% for distribution. Diesel carried a tax of 51%, with the product costing 41% and distribution 8%. The greatest part of the receipts from petrol pumps thus went to the state.

#### **PUMP STATISTICS**

In its survey of petrol stations, the Austrian Petroleum Industry Association (APIA) distinguishes between two principal groups: the so-called major branded stations which total 1,357 and include brands by APIA members BP, Eni, JET, OMV (including Avanti) and Shell; and the other group which consists of 1,342 petrol stations, including those run for example by Turmöl, Genol, Avia, A1, DISKONT and IQ. As of the end of 2018, APIA counted altogether 2,699 publicly accessible petrol stations – a slight increase over the 2,685 stations in the previous year. Added to this figure are 286 diesel sales points for farmers. Of the 1,357 major branded stations, 323 are operated by Eni, 266 by BP, 262 by Shell, 213 by OMV, 154 by JET and 139 by Avanti (OMV).

#### FUEL COVERAGE IN THE AUTUMN OF 2018

After a hot summer and dry autumn, low water levels of the Rhine and Danube obstructed river shipping for many months. The oil tankers were forced to drastically reduce their loads, petroleum companies had to redirect their supply routes to road and rail transport. In Austria this caused delivery difficulties for diesel and petrol from Germany, its main source of imports, and spot markets tensed up. The higher logistics costs impacted on consumer prices for diesel, petrol and extra light heating oil. Nevertheless, the Austrian petroleum companies were able to satisfactorily meet their contractual obligations to supply their customers with diesel and petrol at all times in spite of a difficult procurement situation.