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From the Editors: In this issue of showCASE, our experts take a closer look at Polish IT and e-commerce, two digital-based sectors that have shown upward trends in the recent years. Adequate policies have helped avoid many hurdles for firms and customers, but further international commitment to the free flow of goods, services, and data will be crucial moving forward.

IT, E-Commerce, and Digital Policies. The Case of Poland

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In the recent years, Poland has benefitted from economic openness to see its digital sectors, like the gaming industry, and digitally enabled sectors, such as e-commerce, develop and thrive. To sustain this development, it is crucial that the digital and digitally enabled flows of goods, services, and data be strengthened even more.

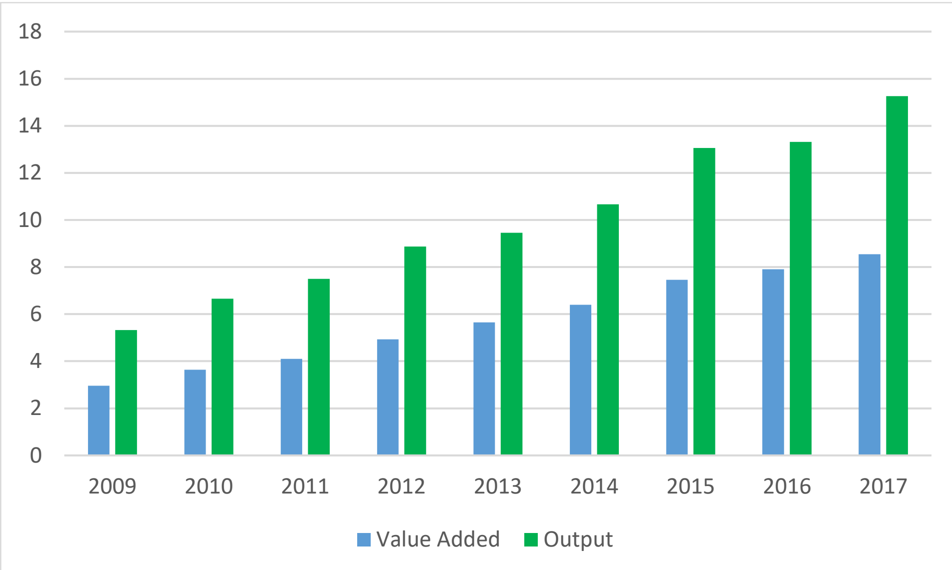
IT

Due to the largely intangible nature of the inputs it uses and the outputs its delivers, the information technology (IT) sector, in particular its software branch, has benefitted enormously from globalisation. With its decentralised value chains, barriers to entry often limited to little more than available skills pools, and access to information encapsulated in its very name, IT the sector can source globally, wherever best talent can be found, and grow by foreign expansion. Consumers likewise benefit, harvesting the savings from the resulting economies of scale as well as from innovative but already well-established digital distribution channels.

Among the economies that tapped into these opportunities was Poland, which saw its IT sector develop and thrive, with computer services alone generating over EUR 15 billion in output and almost 9 EUR billion in value added in 2017 (Graph 1). Computer services span anything from software developers to entertainment studios to outsourcing centres such as BPO (Business Process Outsourcing) and SSC (Shared Service Centres), which deliver IT services to nearby domestic or far-away offshore customers. The fast expansion has been enabled by low-cost, well-qualified, and English-speaking domestic workforce, owing to an extensive network of technical universities and high numbers of graduates, fourth largest in the EU28 in the field of information and communication technologies. The country is also a recipient of large amounts of EU funds, which are used, among others, to co-finance digitisation of services and processes in public administration, propelling domestic demand for IT solutions.

But rather than at bureaucrats' desks, Poland's digital expansion is perhaps best seen in a much more entertaining area: the gaming industry. The country is home to several hundred studios, some small and independent, others key players on global markets. One of the giants is CD Projekt, which is the fourth largest company on the Warsaw Stock Exchange's main index and boasts market capitalisation of PLN 27 billion (EUR 6.5 billion), leaving behind large banks like Pekao, telecommunications behemoths like Orange Polska and mining conglomerates of the sort of KGHM. CD Projekt's upcoming release, *Cyberpunk 2077*, famously promoted by Keanu Reaves, is touted as among the most anticipated in the industry. The company's reputation has been built with the *Witcher* series, which sold in over 40 million copies worldwide. In fact, the brand name the franchise generated became so symbolic of Poland's hi-tech sector that it was a collector's edition copy of *Witcher 2* that the former Polish Prime Minister Donald Tusk decided to gift to US President Barack Obama during the latter's 2011 visit to Poland. CD Projekt is also experimenting with digital distribution channels, having carved out a niche for itself with its GOG.com platform, which specialises in older games in a market otherwise dominated by the US retailer Steam.

Graph 1: The Polish sector of computer programming, consultancy, and information service activities, 2009-2017 (EUR billions, current prices)



Source: Eurostat (2020)

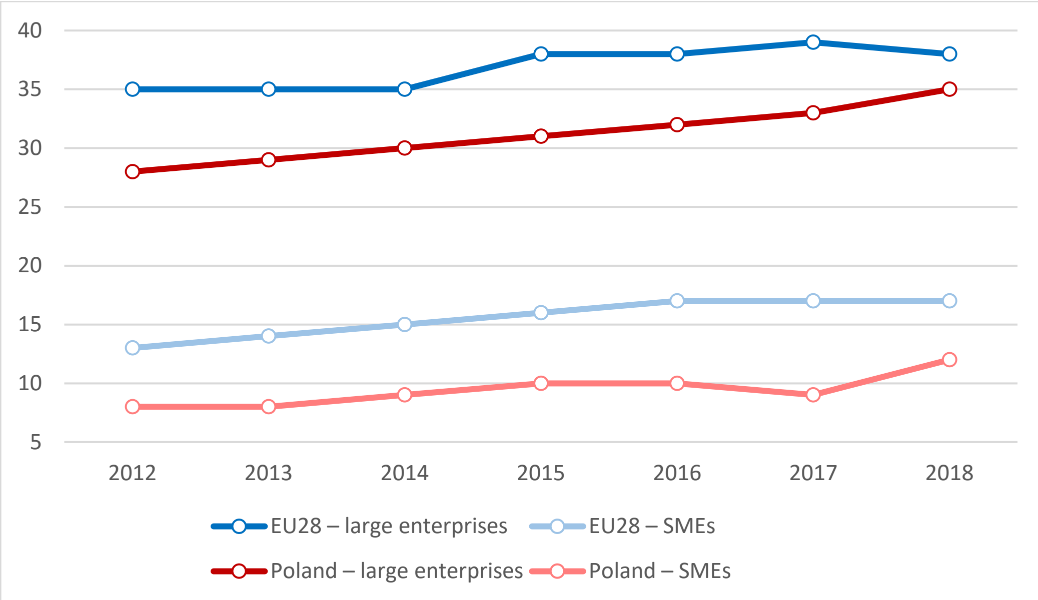
While the digital business is running well, CD Projekt and other companies in Polish IT are beginning to face similar challenges as their counterparts in the brick-and-mortal sectors. The human capital reserves, which for years have been working to their success, seem to be running out. In line with the general tightening of the labour market in the country and the region, with unemployment most recently (2019 Q3) hovering at 3.2% and persisting below 5% since 2017, skilled workforce is becoming scarce, and wage pressures are high.

E-Commerce

While most companies do not create digital goods or services, they can still profit from digitally enabled distribution channels. In 2018, 35% of large and 12% of small and medium Polish enterprises generated at least 1% of their turnover from online sales (Graph 2). In this, Polish enterprises still trail EU enterprises on average (38% and 17%, respectively), although by margins that are not large and recently dwindling. In fact, 21 e-stores on average are created in Poland every day, and their total number already exceeds 30,000. Polish e-commerce vendors are typically micro, small and medium enterprises (MSMEs) and employ between 5 and 9 (47%) or between 10 and 49 sales specialists (32%).

On the demand side, Poland is home to 27.5 million internet users, corresponding to 83.4% of the population aged 7-74, and the country ranks strongly as 11th out of 100 in Economist Intelligence Unit's *Inclusive Internet Index 2019*. An estimated 62% of Polish internet users, or just over 17 million, made at least one online purchase from a domestic website in 2019 (up from 56% in 2018 and 54% in 2017), and 26% of them also purchased from international websites. Moreover, almost every second Polish internet user (45%) makes an m-transaction, which involves payment via a mobile device, at least once a week, and transactions struck via social media are gaining in prevalence. Overall, the value of e-commerce sales was estimated at PLN 50 billion (EUR 12 billion) in 2019. According to e-commerce experts, the share of online sales in general retail trade, at 4.3%, still shows relatively low saturation, and the e-commerce market will continue to grow toward PLN 80 billion (EUR 19.2 billions) in the next few years.

Graph 2: Share of enterprises selling online (≥1% of turnover), 2012-2018 (%)



Source: Eurostat (2019)

A factor that favours Polish e-commerce is the country's strong transport and logistics sectors, driven by intensive international trade. In fact, Poland, with its substantial domestic market, vicinity of large trading partners, and deep integration with the value chains of Western European industries, has been named among the so-called *leading traders* in the *World Trade Statistical Review 2019*, with an average 4% annual growth in exports in the period 2008-2018 and a growth in its share in world exports from 0.97% to 1.31% during that time. Such credentials helped attract companies such as US Amazon and German Zalando, which have located their logistics centres in Poland. The former currently operates seven logistics hubs in the country, including a regional e-commerce facility; the latter has recently launched a fulfilment centre dedicated to 15 million Zalando Lounge members from 13 European countries. Finally, the factor that has been indirectly but significantly supporting the expansion of digital trade in Poland is the recently introduced national ban on Sunday trade.

The Regulatory Framework

Policy makers can either support the development of IT and e-commerce, by removing any remaining barriers to the free flow of goods, services, and data – or disrupt it, by creating them. In the case of Poland, many policy efforts have fit into the former category. For example, electronic contracts are eligible, and contracts with secure electronic signatures enjoy an equivalent status as paper ones, as per the Civil Code. The Act on the Digital Delivery of Services allows for movables and content to be sold digitally, under the condition that the transaction signed online is documented in a durable form (for example by attaching a receipt to the goods or sending it to the consumer electronically).

Moreover, the European Union's continued efforts to further integrate the Single Market have helped limit the digital barriers between the Member States. For example, the so-called eIDAS Regulation, in place since September 2018, ensures that e-signatures from EU countries are mutually recognised. A strategy dedicated to minimizing barriers in cross-border access to digital goods and services, known as the Digital Single Market, has been launched by the European Commission and already brought many improvements. Unjustified geo blocking has been banned, putting an end to the practice of discriminating online shoppers from EU countries other than those predefined by website operators, for example by charging a higher price. The transparency of cross-border parcel delivery prices has been strengthened, and access to audio-visual services improved by allowing EU citizens to use their online subscriptions in other EU Member States. At the same time, as documented by CASE in its 2019 report, intra-EU trade in IT services still suffers from restrictions on the flows, usage, and access to data as well as from restrictions on foreign establishment.

Even more serious impediments persist at WTO level, both with regard to data flows and e-commerce. Indeed, EU citizens encounter considerable obstacles when shopping online outside of the EU. While further talks on data flows and e-commerce remain important items on the WTO's agenda, and the EU became a signatory of the WTO's *Joint Statement on Electronic Commerce* in December 2017, progress is slow, and the absence of customs duties on so-called *electronic transmissions* continues to be regulated by way of a mere moratorium.

In the future, it is desirable from the perspective not only of Poland that the commitment to the freedom of digital and digitally enabled flows of goods, services, and data be continuously strengthened. This will enable further development of IT and e-commerce, allowing firms to scale by foreign expansion and consumers to access a wide variety of goods and services.

Trade, Innovation, Productivity

Following the signature of the phase one trade agreement with China on January 16 and having reached a compromise with France on the suspension of digital tax payments for 2020, the US now hopes to finalise the trade deal with the EU. During a bilateral meeting at the World Economic Forum in Davos on January 21, both sides expressed mutual interest in reaching an agreement in a matter of the next few weeks. However, the scope of the deal has yet to be defined, with the US insisting that agriculture be included in the agreement and the EU willing to confine it to industrial goods only. If concluded, the EU-US trade deal would ease the lasting tensions in transatlantic trade relations and come as an opportunity for EU manufacturing, especially the automotive sector. That sector, accountable for about 7% of the EU GDP and more than EUR 84 billion in trade surplus, is crucial for the EU value-chains and long-term competitiveness, yet it remains under the threat of facing US tariffs of up to 25%.

Labour Markets and Environment

In mid-January, the European Commission presented its first communication on strengthening social Europe and bringing the European Pillar of Social Rights, proclaimed by EU leaders in November 2017, to a more actionable level. The most pressing issues, which are going to be consulted with the EU Member States, include those that relate to the establishment of fair minimum wages for EU workers. In parallel to the EU, Polish policy makers show ambitions of increasing the national minimum wage to its historically highest level. It is planned that the minimum salary will reach PLN 4000 in 2023 (approx. EUR 950), 77% higher than the one in 2019.

At the same time, as most research shows, the increase of the minimum wage in Poland does not go in pair with the increase of the productivity of the least remunerated group of workers. In addition to that, as much as 12% of Polish employees earn it. The consequences of such a rapid increase of the minimum wage, detached from the real increase in the labour productivity, might have a negative impact on the labour market (an increase of unemployment and professional inactivity, an expansion of shadow employment and zero-hour contracts).

The details of the debate on the fair minimum wage at the EU level are still unknown. Nevertheless, researchers and policy makers should ensure that the discussion on the rules establishing minimum wage is built around the topic of labour productivity rather than on political incentives, interests of particular stakeholders, or social requests.

Macroeconomics and Public Finance

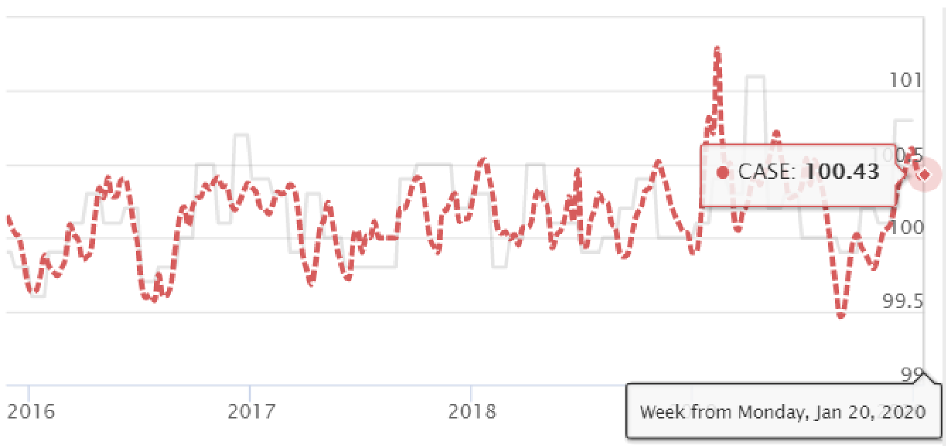
The Polish government is planning to introduce a sugar levy on sweetened drinks from April. The outline of the levy presented in December – a single rate regardless of the content of sugar or sweetener in the beverage – clearly indicates a fiscal target, not a health-oriented regulation. Such a levy, which does not aim at incentivising beverage producers to develop their offers in a more health-oriented direction, will not be effective. Regardless of the evolution of the concept itself (two rates are proposed), the deadline for the introduction is so short that producers will not be able to adapt to it. With households spending on average about PLN 26 per month on drinks (including sweetened ones) in 2018, it seems unlikely that the price of a can of fizzy drink higher by 0.2 PLN will influence consumer habits. The sugar levy is therefore another new tax whose effectiveness appears to be doubtful.

The Weekly Online CASE CPI

The online CASE CPI is an innovative measurement of price dynamics in the Polish economy, which is entirely based on online data. The index is constructed by averaging prices of commodities from the last four weeks and comparing them to average prices of the same commodities from four weeks prior. The index is updated weekly. For more information on our weekly online CASE CPI, please visit: http://case-research.eu/en/online-case-cpi.

According to the latest readout of the Online CASE CPI and in line with the expectations that have been recently heavily discussed in the media, prices at the beginning of 2020 are on the rise – by 0.4% on average from December. The expectations alone have surely contributed to the price increases, and we could observe prices higher than at the end of 2019 in all of the main categories of the inflation basket. The most prominent changes were observed in the two categories with the heaviest shares in the basket: "Food and Beverages" (0.6%) and "Transportation" (0.9%).

Our Weekly Online CASE CPI



Online CASE CPI (----) vs GUS CPI (——)

Monthly CASE Forecasts for the Polish Economy

Every month, CASE experts estimate a range of variables for the Polish economy, including future growth, private consumption, investments, industrial production, growth of nominal wages, and the CPI.

CASE economic forecasts for the Polish economy
(average % change on previous calendar year, unless otherwise indicated)

	GDP	Private consumption	Gross fixed investment	Industrial production	Consumer prices	Nominal monthly wages
2020	3.3	3.7	3.6	2.9	2.9	6.0
2021	3.1	3.4	3.4	2.7	2.8	5.1

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