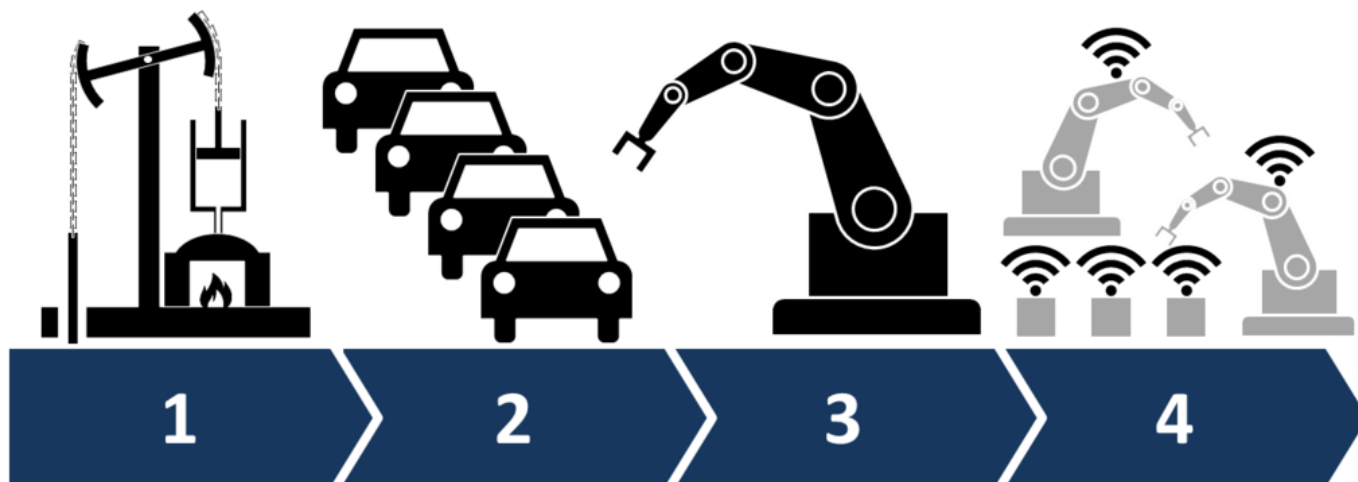


Overview: In this week's edition of showCASE, our guest writer, Stefano da Empoli, discusses the level of preparedness of European Union countries for an industry 4.0. Our analysts are also looking at the wage growth in the Eurozone, wondering whether it is a sign of inflation rate picking up in the nearest future as well.

Smarter Industry, Smarter Europe¹

By: *Stefano da Empoli, President, Institute for Competitiveness (I-Com)*

A recent [communication](#) from the European Commission entitled “Investing in a smart, innovative and sustainable Industry. A renewed EU Industrial Policy Strategy”, published on September 13th, states that “the future of industry will be digital. Digital transformation is at the core of the ongoing industrial revolution.” Unfortunately, digitization is an area where Europe has been lagging behind other regions such as North America or parts of Asia. Moreover, the situation is very heterogeneous across the European Union, as evidenced by a [recent study by I-Com Institute for Competitiveness, presented to the European Parliament in early September](#). The I-Com industry 4.0 Index on the level of preparedness across EU countries, developed for the purpose of the study and comprising of 13 variables such as adoption of technology, ICT infrastructure, and e-skills, shows large disparities between individual states. What can be done to close this gap?



Industry 4.0. Source: [Christoph Roser](#) via Wikimedia Commons, CC BY-SA 4.0

At the top of the rankings and at forefront of the fourth industrial revolution was Finland, thanks primarily to the adoption of certain technologies such as cloud computing services and Big Data analysis tools, as well as relatively high level of employment of both ICT specialists and data workers. The Netherlands, Germany, and Denmark follow closely behind, while most Eastern countries fare much worse. Indeed, the worst performing country – with a score of 53 out of 100 – is Romania, underperforming in infrastructural development (particularly mobile networks) and adoption of business integration technologies. Poland, a significant industrial hub on a continental scale, scored only 66 points out

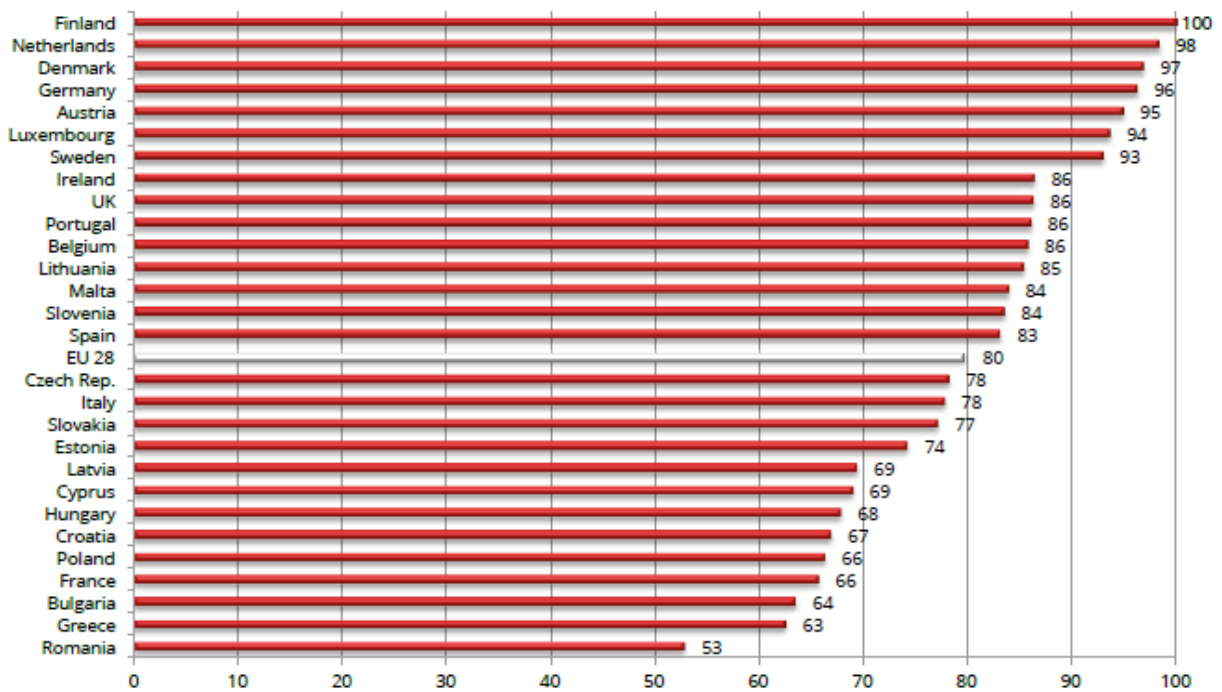
¹ This text contains excerpts from the Institute for Competitiveness (I-Com) report “Thinking the Future of European Industry. Digitalization, Industry 4.0, and the Role of EU and National Policies,” published in September 2017.

of 100. Italy, the second most important manufacturing European powerhouse after Germany, ranks only 17th (with 78 points), mainly because of the gap in the fixed network infrastructure and, even more significantly, in digital skills.

Not only does Europe lack digital champions but the overall digital readiness of the industry is still dramatically low; according to a study by Roland Berger, only around 40% of large companies and less than 10% of SMEs are ready to go digital. According to the [I-Com study](#), there are at least 6 areas on which to concentrate efforts on national and, possibly, EU level.

One of most crucial challenges will be attracting FDI in digital manufacturing. EU institutions and Member States need to stimulate FDI in digital manufacturing and private investments in Industry 4.0 technology drivers, to increase private spending in R&D and to develop open innovation relations between mature companies and high-tech start-ups. The EU could sustain business growth and attractiveness of locations for digital investments thanks to favorable and common tax measures and adequate funding support, so as to reduce the tax burdens for companies investing in digital. Of course, FDI should be open also to those extra-EU countries that comply with principles of reciprocity.

Industry 4.0 Index 2017 on the level of preparedness across European Union countries



Source: Institute for Competitiveness, *Thinking the Future of European Industry. Digitalization, Industry 4.0, and the Role of EU and National Policies*, 2017: 91.

Fundamental for success is also providing incentives and sustaining the integration of robots and other digital technologies in the productive processes. In this respect, government procurement plays an important role. Used strategically and in a transparent manner, public procurement can encourage innovation, competition and investment in skills and technologies. It is also important to help smaller companies to access digital technologies, with special initiatives targeting SMEs.

Governments and EU institutions should also focus on promoting public and private investments in upgrading digital infrastructures all over the EU, first and foremost with an eye towards defining cybersecurity systems and policies. The

EU needs to become a strong player in cybersecurity, ensuring that all European citizens, enterprises (including SMEs), public administrations have access to the latest digital security technology, at the same time interoperable, competitive, trustworthy and complying with fundamental rights including the right to privacy.

Europe also needs to anticipate standards requirements and accelerate their development, by following the proposal for a 2017 work program for European standardization that identifies the services and ICT sectors as priority areas for future standard-setting, given their cross-cutting role in the economy. Thus, it is important to support the three European Standards Organizations (CEN, CENELEC and ETSI) as well as to ensure the best possible coordination between national standard entities from EU Member States.

With regard to human capital, the revision of the content of teaching and of the organization of Vocational Education and Training (VET) systems is required. This needs to be followed by supporting the national and local coalitions for worker up-skilling and the review of the European Qualifications Framework and to reinforce a common framework for coordination between national and EU-level initiatives and relevant policy actions. There is also an important role to play for competence centers, technical universities, and research organizations. As can be seen, digital transformations do not occur overnight, but occur due to an intricate series of steps. Europe's ability to compete will depend upon how it continues to develop these various parts of the process.

Finally, crucial to achieving these goals will be closer international cooperation and networking. Member States have already launched various national initiatives while others are coming. However, it would be appropriate to coordinate all these efforts on the EU-level in order to provide economies of scale. Only a continental industrial strategy will allow Europe to bring manufacturing's weight in the EU GDP back to 20%, [a target set by the European Commission in 2012](#), and European companies to thrive in an increasingly competitive world.

Wages rise but will inflation follow?

By: *Mateusz Urban, CASE Analyst*

The 2% wage growth in the Eurozone in the second quarter of 2017 has surpassed market expectations, a signal that the inflation rate could pick up in the months to come. However, reaching the European Central Bank's (ECB) inflation target may be further away than we think.

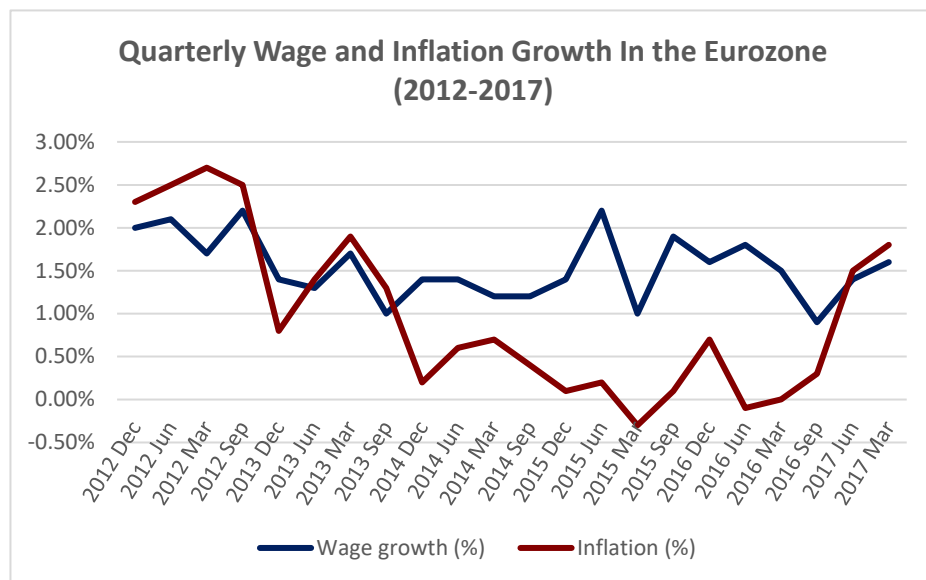
The first half of 2017 showed sluggish but positive growth for the Eurozone economy, with a slight uptick of 0.5% and 0.6% in the first and second quarter of the year respectively. This continues the trend of improving economic performance visible in Europe at least since the last quarter of 2016, when, growing 0.5% in that quarter alone, the Eurozone's GDP growth surpassed that of the United States' (US) for the first time since 2008. With the uncertainty created by the recent



Source: Pixabay, Creative Commons CC0

eventful election cycle in European economies nearly complete, it appears that some much-needed stability is settling on the Eurozone.

Despite the economic upturn, the massive stimulus program conducted by ECB has been consistently unable to meet its just-under 2% headline inflation target. And while 2015-16 disinflation (and even periodic deflation) in the Eurozone could be to a great extent ascribed to plummeting oil prices, the picture of inflation dynamics is much less clear from 2016 onwards.



Robust economic growth and relatively accommodative monetary policy should produce a marked increase in the inflation rate. However, reality has been recently defying theory both in Europe and the US in regard to consumer price indices, creating a considerable amount of confusion among both academic economists and policymakers. The missing link in the so-called 'transmission mechanism', by virtue of which loose (tight) monetary policy is translated into higher (lower) inflation seems to have been the lack of strong and consistent

Source: European Central Bank, Eurostat.

increase in nominal wages. Crucially, increase in wages affects the inflation rate not only because firms account for the increased labor costs by raising the prices of the goods and services but also by reinforcing the workers' spending power.

It seems that, after a long holiday, this missing link is returning. Eurozone wages rose in the second quarter of 2017 at their fastest pace since 2015, hitting a 2% year-to-year increase (up from 1.3% in the previous three-month period). Furthermore, an additional boost to inflation could in principle come from steadily-increasing household consumption expenditure, which has firmly supported the recovery of the first two quarters of 2017. However, the impact of wage growth and increased spending on inflation may become greatly reduced (or even neutralized) by developments in the consumer inflation expectations, which have fallen markedly since the beginning of the year.

Wage growth data seems particularly vital to central bankers, who are intensively looking for signs of improving economic conditions as a signal for normalization of monetary policy. 'Normalization' will entail decreasing the stock of assets held by the US Federal Reserve and a decrease in the amount ('tapering') of long-term debt obligations bought from the Eurozone countries (ECB). Importantly, as the 'normalization' will in essence constitute tightening of a monetary policy, it could bring inflation back down.

In the last few years, weak GDP growth and inflation figures have been repeatedly cited as the main reasons for the postponement of raising interest rates and reducing the scale of quantitative easing programs. If robust wage growth continues and pushes inflation in the Eurozone near or above the target, central bankers will most probably find themselves to have no more excuses.



This week: The Ministry of Economic Development and Finance announced that, as of August, Poland's budgetary surplus amounted to PLN 4.9 billion. The Ministry also noted it expects revenues from VAT at the end of 2017 to be as high as PLN 150 billion, 7 billion more than initially planned. However, budgetary expenditures thus far have been far below normal and the government is projected to increase spending in Q4, meaning that the deficit will necessarily grow in upcoming months.

GDP (Q2 2017)

↑ **4.4% y/y (est.)**

Up from 4.2% in Q1

Inflation (Aug 2017)

↑ **1.8% y/y**

Up from 1.7% in July

Unemployment (July 2017)

↓ **7.0%**

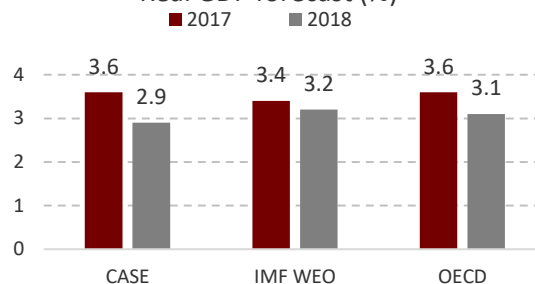
Down from 7.1% in July

NBP Base rate

1.5%

From 2% Mar 2015

Real GDP forecast (%)



This week: On September 18, the government approved a final draft of the 2018-2020 budget. According to the draft, which will reach the State Duma before September 29, spending on defense will be cut by 5% in 2018 (only to be increased by 3.7% in 2019). The 2018 deficit is expected to reach RUB 1.33 trillion, or 1.4% of GDP, and is planned to be reduced to 0.84% of GDP and 0.87% of GDP in 2019 and 2020 respectively.

GDP (Q2 2017)

↑ **2.5% y/y**

Up from 0.5% in Q1

Inflation (Aug 2017)

↓ **3.3% y/y**

Down from 3.9% in July

Unemployment (July 2017)

5.1%

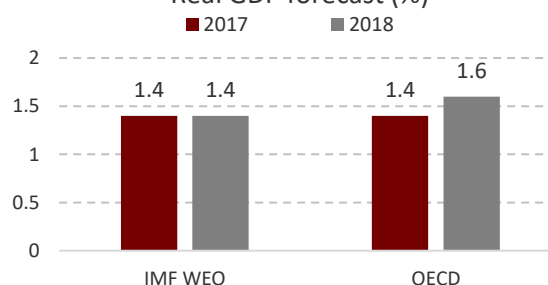
Unchanged from June 2017

CBR Base rate

9%

From 9.25%

Real GDP forecast (%)



This week: The Federal Finance agency announced (September 21) the cancellation of the Boble top-up auction planned to take place in November 29, 2017. This is accompanied by the news that the volume of debt planned to be issued by the agency will be reduced by EUR 3 billion to 35 billion. From October to December the Money Market Instruments will receive EUR 4 billion while the capital market instruments will receive EUR 31 billion.

GDP (Q2 2017)

↑ **2.1% y/y**

Up from 2.0% in Q1

Inflation (Aug 2017)

↑ **1.8% y/y (est.)**

Up from 1.5% in July

Unemployment (July 2017)

3.6%

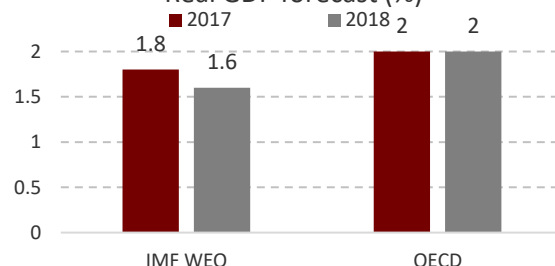
Unchanged from June

ECB Deposit rate

-0.4%

From -0.3% Dec 2015

Real GDP forecast (%)





This week: Ukraine raised a record USD 3 billion from its Eurobond offering from September 18, the first one since restructuring of its debt in 2015. The sovereign bond has a yield of 7.375%; USD 1.7 billion will be dedicated to the debt swap, while the remaining USD 1.3 billion is set for fresh financing.

GDP (Q2 2017)

↓ **2.4% y/y**
From 2.5% in Q1

Inflation (August 2017)

↑ **16.2% y/y**
Up from 15.9% in June

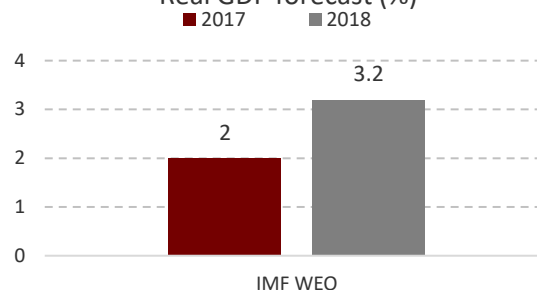
Unemployment (Q1 2017)

↑ **10.5%**
Up from 10.0% in Q4

NBU Base rate

12.5%
From 13.0% in May

Real GDP forecast (%)



This week: According to preliminary economic data released by the Czech National Bank (CNB) on September 20, foreign debt in the country rose to CZK 4.5 trillion in Q2, accounting for almost 92% of GDP and exceeding CZK 4 trillion for the first time in the country's history.

GDP (Q2 2017)

↑ **4.7% y/y (est.)**
Up from 3.0% in Q1 2017

Inflation (July 2017)

↑ **2.5% y/y**
Up from 2.3% in June

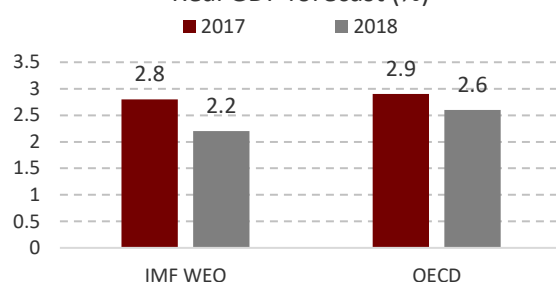
Unemployment (Q2 2017)

↓ **3.0% (est.)**
Down from 3.4% in Q1

CNB Base rate

0.25%
From 0.05% (4 August 2017)

Real GDP forecast (%)



This Week: On September 19, 2017, the central bank of Hungary reduced its overnight deposit rate to -0.15%, marking a 10 basis-point change. Although the base rate in the country remained the same, the central bank continues to loosen its monetary conditions. The easing by the monetary council is expected to be maintained, with the 3-month deposit tool's cap to be cut before the end of 2017.

GDP (Q2 2017)

↓ **3.2% y/y**
Down from 4.2% in Q1

Inflation (August 2017)

↑ **2.6% y/y**
Up from 2.1% in July

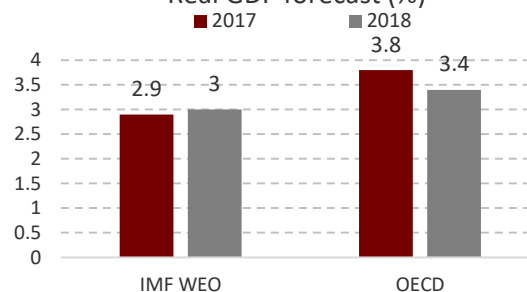
Unemployment (Q2 2017)

↓ **4.2%**
Down from 4.3% in Q1

MNB Base rate

0.9%
From 1.05% May 2016

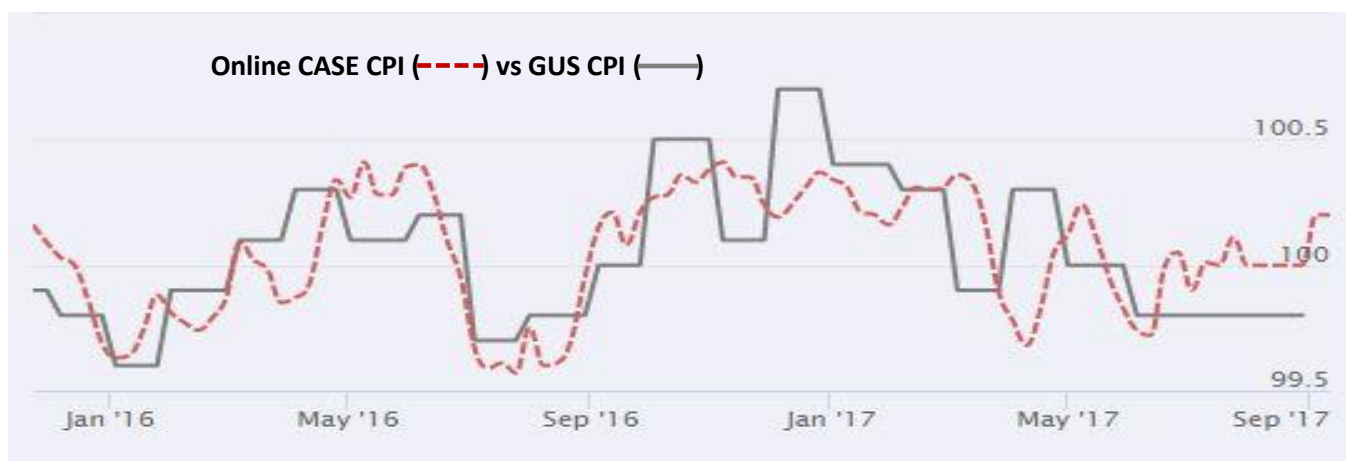
Real GDP forecast (%)



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.

Our weekly online CASE 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, and foreign trade, current account balance, 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
2017	3.6	3.9	2.9	3.8	1.9
2018	2.9	3.0	2.7	3.7	2.0
	Nominal monthly wages	Merchandise exports (USD, bn)	Merchandise imports (USD, bn)	Merchandise trade balance (USD, bn)	CA balance (USD, bn)
2017	4.7	201.6	201.8	-0.2	-4.7
2018	3.5	211.3	213.1	-1.8	-5.9

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