

HELDING VOLUDI		CHANCING	CLODAL	FCONOMY
HELPING YOU PI	AN FOR A	CHANGING	GLUBAL	ECONOMY.

We aim to deliver state-of-the-art macroeconomic research to improve the performance of companies.

GLOBAL TRENDS & IMPACT ON HUNGARY.

AN ECONOMIST'S INSIGHT ON BUSINESS PERFORMANCE

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ANALYSE.

Budapest, 20th March 2018

ACT.

ACT.

1.



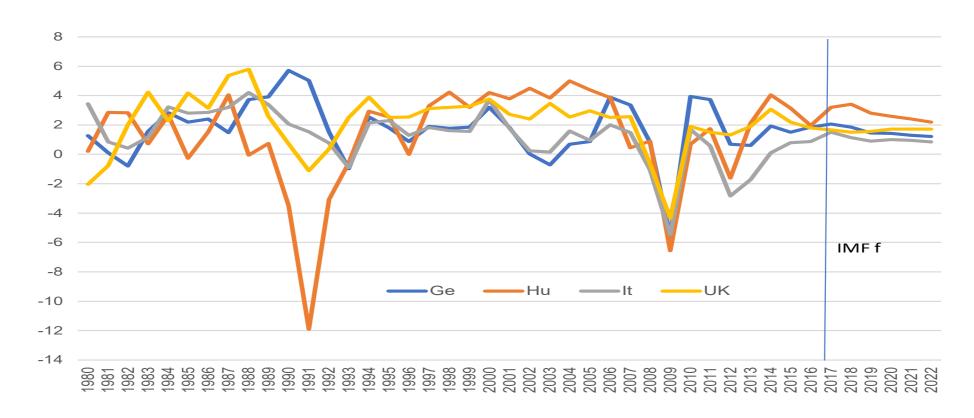
WHY MACRO RESEARCH IS USEFUL. **KEY TRENDS.** Business cycle Inflation: too much or Implications Wage convergence too little? Polarized profits HOW CAN ADA HELP YOU. DISCLAIMER.

ANALYSE. DEBATE. ACT. 2.



THE PERILS OF FREE MACRO RESEARCH.

- Forecasts available from international organizations or consensus projections tends to exhibit a high degree of stability, which is not consistent with the historical pattern of most economic variables
- This is partly due to the fact that it is produced for an audience of institutional investors, not for non-financial corporations, which are more interested in variance and structural trends
- Free research usually is in the form of reports, does not allow direct access to the analyst
- Private-sector research tends to exhibit the same flaws as research provided by the IMF/EC & so on



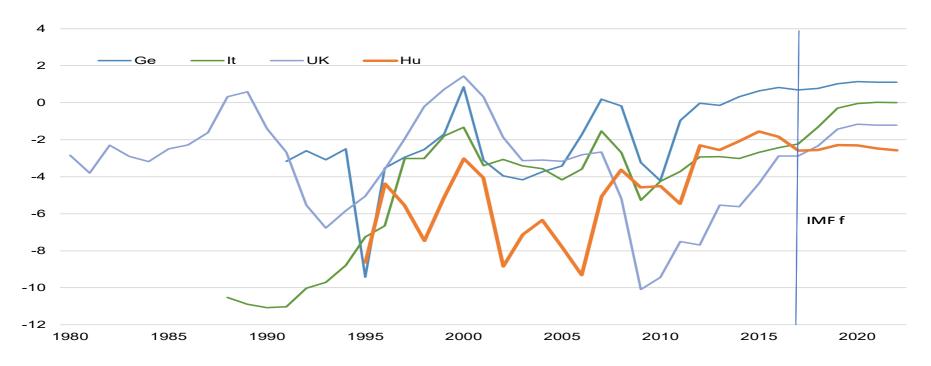
Sources: : IMF WORLD ECONOMIC OUTLOOK, MACROBOND BLOOMBERG, ADA ECONOMICS



THE PERILS OF FREE MACRO RESEARCH.

- The same is true for all economic variables for example below the forecasts from the IMF World Economic Outlook shows a steady improvement in budget balances (bar Hungary), despite the fact that it is highly likely that by 2020 the next downturn of the economic cycle will take place and with it a deterioration of budget deficit (and that usually means higher taxes shortly afterwards!)
- Free research usually also does not flag the changing economic trends that are taking place in a country, including potential risks to exchange rates.

Budget deficit past & future, % of GDP





ABOUT ADA.

- Independent macroeconomic and political research company set up in 2015. Focused on Europe.
- The only economic research company that has a holistic approach: run proprietary surveys to assess the genuine state and trajectory of the economy and its voter base, we speak with SMEs, with institutional investors and policy makers in every country we monitor.
- Our small data surveys were developed in the first year and half of ADA and have an tend to outperform more widely available opinion polls in predicting election results.
- Our research and services cater both for portfolio allocations decision makers and for leaders that want to stress test their budget assumptions, strengthen strategic business decisions with economic analysis or simply want to investigate changes they notice but can't quite put into a global/economic context.
- Our services range from simple twitter feeds to unlimited analyst contact depending on needs, we prefer to stand by our motto: Analyse. Debate. Act. as the exchange of views in our view makes economic analysis more effective to the end user.



ADA SERVICES.

Stress - Free Country Monitoring.

Monitor all key economic and political developments of a country easily with our monthly report and direct conversations with our team to discuss any aspect that you may find useful.

An Economist for Entrepreneurs.

Our 15 years of international experience and 8m data series databases at your disposal to help you best position your company.

What can you use it for? We will support you on strategy, financial marketing material, stress testing your budget assumptions (short term and long term outlooks), help you refine budget assumption with a probabilistic approach and provide you with independent advice on interest rate and exchange rate exposure.

A Changing Europe.

A monthly note discussing the big economic and political shifts in Europe – aimed at anyone with exposure to European assets, who wants to be ahead of the consensus in understanding how Europe is evolving.

Artificial Intelligence Economics

A quaterly note investigating how artificial intelligence is affecting, and will affect, countries.

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Below we show you a few slides on four themes we believe are still underappreciated and not well understood, but can have profound business implications

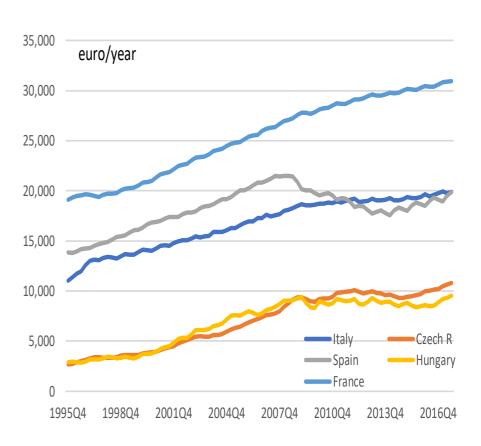
ANALYSE. DEBATE. ACT. 7.



WAGE CONVERGENCE.

- If we look at the commonly used GDP per capita trends one would infer that there is a large convergence gap between eastern Europe and western Europe. However, if you try to delve in the details of the income distribution, you can see that East and West have converged already a great deal, at least for the bottom 40% of the income distribution – that is where blue collar workers should be concentrated.
- For example convergence has already been achieved between the Czech Republic and Italy, for the 1st and 2nd quintiles, and between Portugal and Poland - in euros PPS.
- Hungary is already better off relative to Greece for the bottom 40% of the income distribution and in our view will catch up to Portuguese incomes by the end of the decade, it should also overshoot Greece for the 3rd and 4th quintiles (ie the middle class) in a matter of few years.
- There is little convergence between north and south in the EZ!

Wage per employee, euros/year

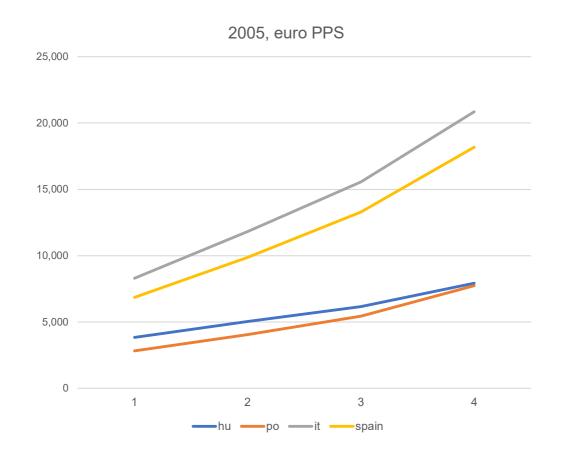


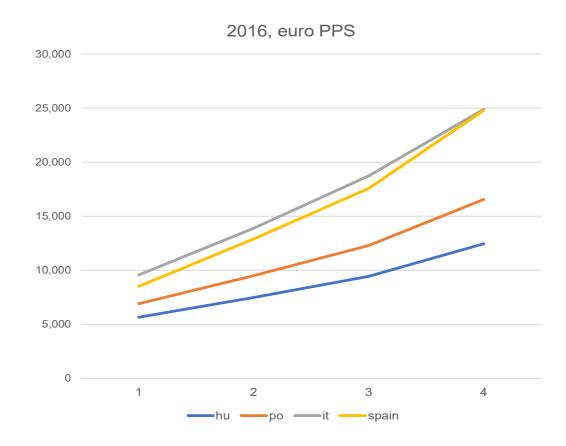
Sources: EUROSTAT, ADA ECONOMICS



WAGE CONVERGENCE

Cut off points of the income distribution in PPP-adjusted euros by quintiles





Sources: EUROSTAT, ADA ECONOMICS



70

Apr-07

Apr-09

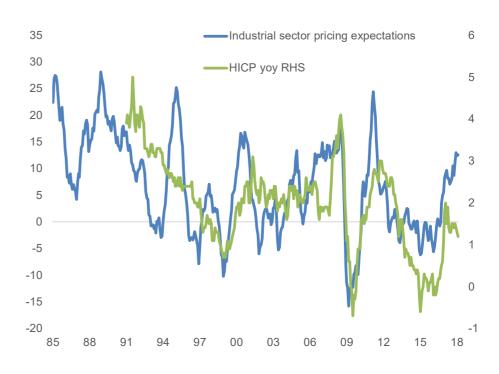
BUSINESS CYCLE.

European sentiment index and GDP growth

Apr-13

Apr-15

Inflation and pricing power



Sources: MACROBOND BLOOMBERG, ADA ECONOMICS

Apr-11

ANALYSE. DEBATE. ACT. 10.

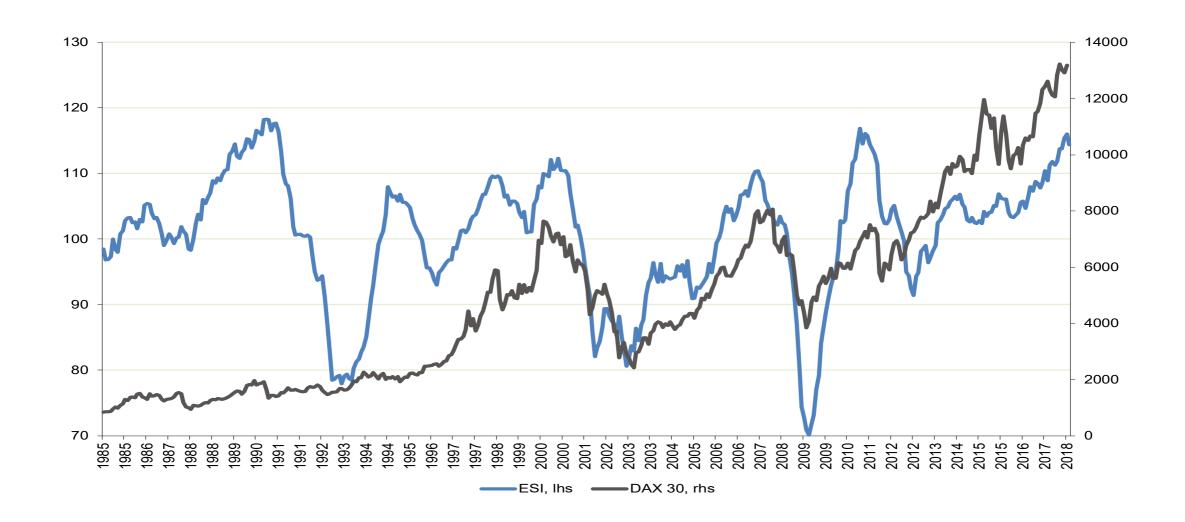
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Apr-17



BUSINESS CYCLE.

Sentiment index and DAX performance historically





BUSINESS CYCLE.

Business cycle stylized facts & some lessons from experience

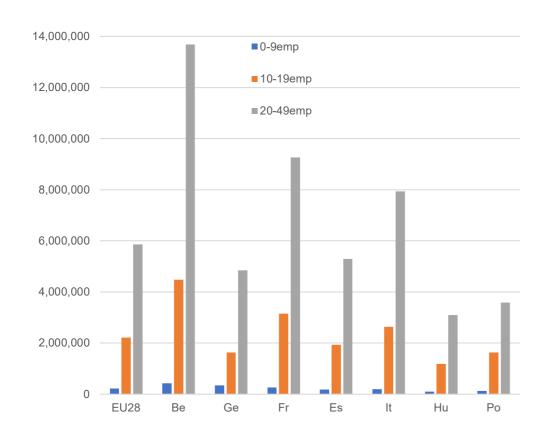
- The downswing of the economic cycle is usually associated with a positive output gap and rising interest rates, the last year is usually the strongest in terms of real GDP growth and inflation usually peaks a year later.
- The full cycle lasts on average 10 years, which means 2018-2020 could see the next downturn.
- If we look at a mixture of advanced economies, central European countries and neighborhood countries, since the 1980s there were four visible downturns in the advanced countries and their trading partners. Real GDP growth fell on avg by 2p.p., while CEE growth fell by 4p.p. on average and Iceland, Russia saw larger downswings. Hungary saw two very sharp drops of -13p.p. of GDP and two shallow ones. The unemployment rate rose by approx. 2p.p. in the advanced countries, while it increased by 3-10p.p. in the CEE.
- Slowdowns in export growth are far more frequent than real GDP growth downturns and of greater magnitude.
- Trade hiccups on the horizon due to Brexit and Trump maybe key factors for the next downturn, or a divergence between expected earnings and demand.
- Central Europe, and thus Hungary, is much better placed than 10 yrs ago to maintain buoyant domestic demand at the next downswing, but exports will not be immune to a global slowdown.

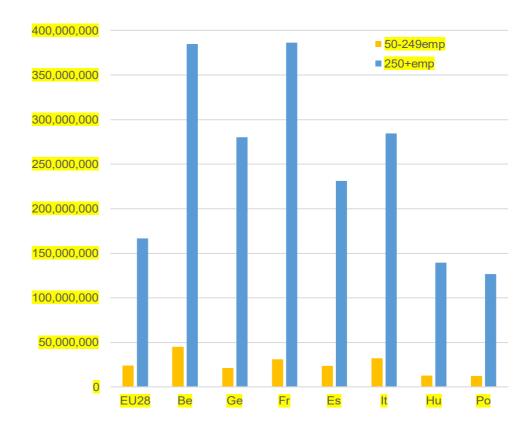
Sources: : IMF WORLD ECONOMIC OUTLOOK, MACROBOND, ADA ECONOMICS

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Average turnover in euros by company size in terms of employment





Sources: EUROSTAT, ADA ECONOMICS. NOTE: BUSINESS SECTOR



Has inequality of balance sheet size gone too far?

 A large dispersion between small/micro companies and large companies is nothing new. The slide before shows you the average turnover in euros of various countries including the EU average for 2015

However, there is a growing number of Titans: companies as large as middle-high income countries.

 The novelty is also that Titans can be found across sectors, not just in utilities and banking, traditionally heavily regulated sectors.

Their influence in our view is increasingly visible in actual economic variables and they have a structural support due to technology, low interest rates and globalization.

However, it is questionable whether there is a genuine level plain field between SMEs and Titans. But SMEs are still the biggest employer in most countries in the EU (and in most countries globally)

...so the more they are squeezed out, the more economies will feel the negative consequences on employment, investment, productivity and voters' satisfaction.

- We have gathered some trends associated with this polarization already last year in different countries regardless of their GDP performance: it was evident in France, as much as in Romania and large sections of Germany.
- Titans enjoy greater benefits from the legal system and in general from the "standard" industrial strategy recipes: lower taxes, lower social security contributions. It is time to rethink!

Sources: IMF WORLD ECONOMIC OUTLOOK, MACROBOND, ADA ECONOMICS

ANALYSE.

DEBATE.

ACT.

14.



Ranking	Country/Company	12m profits/12m NGDP in 2000, USDbn	Ranking Countr	y/Company	12m profits/12m NGDP in 2016, USDbn
	1 United States	10,284.8	1 United	States	18,036.6
	2 Japan	4,887.5	2 China		11,007.7
	3 Germany	1,950.0	3 Japan		4,383.1
	4 United Kingdom	1,635.4	4 Germa	nny	3,363.6
	5 France	1,368.4	5 United	Kingdom	2,861.1
	6 China	1,211.3	6 France	9	2,418.9
	7 Italy	1,141.8	7 Italy		1,824.9
	8 Canada	742.3	8 Canada	а	1,552.8
	9 Brazil	655.4	9 South	Korea	1,377.9
	10 Mexico	648.5	10 Russia	a	1,326.0
	11 Spain	595.4	11 Austra	lia	1,243.2
	12 South Korea	561.6	12 Spain		1,193.0
	13 Netherlands	412.8	13 Mexico	0	1,148.1
	14 Australia	409.3	14 Indone	sia	861.9
	15 Russia	276.7	15 Turkey	•	859.4
	16 Turkey	273.0	16 Nether	lands	750.3
	17 Switzerland	271.7	17 Switze	erland	670.8
	18 Sweden	259.8	18 Saudi <i>i</i>	Arabia	646.0
	19 Belgium	237.9	19 Argent	ina	632.3
	20 Austria	196.4	20 Swede	en	495.7
	21 Saudi Arabia	188.4	21 Poland	d	477.1
	22 Indonesia	180.6	22 Belgiu	m	455.1
	23 Poland	171.9	23 Norway	y	386.6
	24 Norway	171.3	24 Austria	a	377.0
	25 Denmark	164.2	25 Denma	ark	301.3
	26 South Africa	136.4	26 Israel		299.4
	27 Israel	132.3	27 Ireland		283.7
	28 Greece	131.7	28 Chile		240.8
	29 Finland	125.5	29 Finland	d	232.4
	30 Portugal	118.4	30 Portug	al	199.1
	31 Colombia	99.9	31 Greece	е	194.9
	32 Ireland	99.9	32 Czech	Republic	185.2
	33 Chile	78.0	33 New Ze	ealand	175.6

Sources: WORLD BANK, BLOOMBERG, ADA ECONOMICS



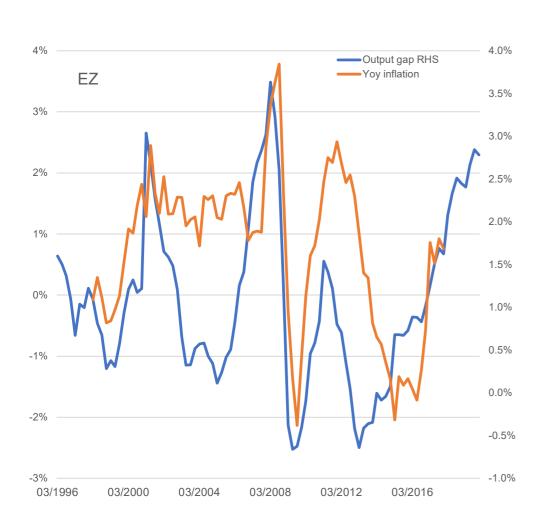
Ranking	Country/Company	12m profits/12m NGDP in 2000, USDbn	Ranking	Country/Company	12m profits/12m NGDP in 2016, USDbn
3	31 Colombia	99.9		Greece	194.9
	32 Ireland	99.9	32	Czech Republic	185.2
3	33 Chile	78.0		New Zealand	175.6
3	34 Czech Republic	61.5	34	WAL-MART STORES	124.6
3	35 EXXON	58.8	35	Hungary	121.7
3	36 GE	55.5	36	Slovakia	87.3
3	37 New Zealand	54.4	37	AT&T INC	86.9
3	88 Hungary	47.2	38	APPLE INC	84.0
3	9 MOTORS	40.6	39	VERIZON COMMUNIC	74.6
4	O LVMH	37.2	40	SAMSUNG ELECTRON	70.3
4	1 ALTRIA	36.4	41	Luxembourg	56.8
4	2 FORD	35.3	42	COMCAST CORP-A	55.9
4	3 ATT	33.3	43	ALPHABET INC-A	55.1
4	4 WALMART	33.0	44	Costa Rica	54.8
4	5 IBM	31.9	45	BERKSHIRE HATH-A	54.5
4	6 Luxembourg	21.4	46	NIPPON TELEGRAPH	54.3
4	7 WORLDCOMM	21.2	47	MICROSOFT CORP	52.2
4	l8 Slovakia	20.7	48	JOHNSON&JOHNSON	50.2
4	l9 Slovenia	20.3	49	AMAZON.COM INC	47.7
5	50 MICROSOFT	19.1	50	NESTLE SA-REG	46.3
5	51 PPANASONIC	19.0	51	TOYOTA MOTOR	45.6
5	52 SONY	18.1	52	VOLKSWAGEN AG	45.4
5	53 P&G	17.9	53	UNITEDHEALTH GRP	43.4
5	54 PG&E	17.5	54	Slovenia	42.8
5	55 INTEL	17.5	55	ROYAL DUTCH SH-A	42.6
5	66 HONDA	16.8	56	Lithuania	41.4
5	57 MERCK	15.2	57	PFIZER INC	40.5
5	58 Costa Rica	14.9	58	IBM	38.3
5	59 GTE	14.4	59	FINATIS SA	38.0
6	60 HISTOIC TW	14.0	60	FONCIERE EURIS	38.0
6	S1 SEARS	13.9	61	INTEL CORP	36.2
6	32 COCACOLA	13.8	62	DAIMLER AG	35.4
6	3 HP	13.7	63	ROCHE HLDG-GENUS	34.9
6	64 PFIZER	13.7	64	PEPSICO INC	34.6

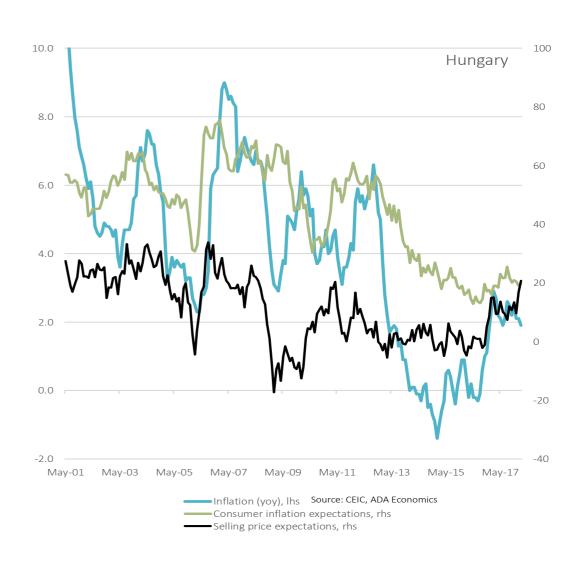
Sources: WORLD BANK, BLOOMBERG, ADA ECONOMICS



INFLATION. TOO MUCH? TOO LITTLE?

Various ways to forecast inflation: output gaps and forward looking surveys





Sources: : EC, CEIC, MACROBOND BLOOMBERG, ADA ECONOMICS

ANALYSE. DEBATE. ACT. 17.



INFLATION. TOO MUCH? TOO LITTLE?

Are we underestimating inflation?

- Faster depreciation than before
- Housing market recovery
- Big data allows for greater, faster, more tailored pricing strategies and multiple tariffs

Has the pattern of inflation changed?

- Traditional output gap considerations may be less relevant for countries with increasingly unequal distribution of profits
- Big data changes the seasonality of pricing
- The weaker is the SME sector, the less important should be wage growth for inflation in the short run

Implications?

- Low rates for longer
- Divergence between consumer confidence and demand, especially if wage growth is modest
- Low rates accentuate profit inequality it is vicious circle



IMPLICATIONS OF THESE TRENDS.

Political

The April elections appear more contentious than the last one, but the incumbent party Fidesz is likely to retain a majority.

The next downturn

- Is likely to see GDP growth falling sharply via exports.
- But wage growth is likely to remain strong, because the industrial base is widening and foreign direct investment is likely to remain strong.
- A protracted phase of negative real interest rate (for the policy rate)/ low real interest rates for mortgages imply strong upward trajectory for house prices despite the increasing supply coming.

The exchange rate

If Hungarians grow weary of their own country the current account surplus will
not be a shield against future depreciations in the long term. That said, as the
economy experiences growing inflationary pressures a mild appreciation path
appears plausible, as seen in the Czech Republic.

Inequality of balance sheets

- The Fidesz government has been at the forefront of policies that de facto address some of the issues highlighted above.
- However, this is a global phenomenon and will require a "global" response or rather a shift of views.

Sources: ADA ECONOMICS



IMPLICATIONS OF THESE TRENDS.

Hungary macro projections

	2013	2014	2015	2016	2017E	2018E	2019E
Real GDP growth	2.1%	4.2%	3.4%	2.2%	4.0%	4.1%	3.2%
Households	0.2%	2.8%	3.6%	4.3%	4.5%	5.2%	4.5%
Government	4.1%	5.1%	1.1%	0.8%	0.5%	2.0%	2.0%
Investment	9.8%	12.3%	1.9%	-10.6%	5.3%	8.4%	2.2%
Exports	4.2%	9.1%	8.5%	3.4%	6.0%	10.0%	6.7%
Imports	4.5%	11.0%	6.4%	2.9%	9.5%	11.0%	9.1%
Population, m	9.9	9.9	9.9	9.8	9.8	9.8	9.9
Unemployment rate	10.3	7.8	6.9	5.2	4.3	3.3	2.3
Inflation, avg	1.7%	-0.2%	-0.1%	0.4%	2.3%	2.4%	2.8%
Policy rate, MNB eop	3.00	2.10	1.35	0.90	0.90	0.90	0.90
Current account in % of GDP	3.8%	1.5%	3.5%	6.1%	4.2%	3.5%	3.0%
EUR/HUF, eop	297	316	316	310	311	303	295
Fiscal balance in % of GDP	-2.6%	-2.7%	-2.0%	-1.9%	-1.9%	-2.4%	-2.4%
Public debt in % of GDP	76.0%	75.2%	74.7%	73.9%	73.0	72.0%	71.0%

Sources: ADA ECONOMICS



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THANK YOU!

WE ARE LOOKING FORWARD TO WORK WITH YOU

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