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EXECUTIVE SUMMARY

01

Hungary is a very open economy, and as consequence, it is vulnerable and highly exposed to external risks. These dependencies can be observed both through real economy channels (ie. large share of foreign capital in GDP) and energy channels (Russian energy imports). On the real economy channels, the Hungarian government - now in power since 2010 - has tried to counterbalance the economy's dependence on the West by agreeing to large bilateral projects with Russia and China. The most important of these is a nuclear power plant to be built by Rosatom in Paks. Although Hungary, along with Slovakia, was already the most dependent country on Russian energy supplies in the EU, the government has tied itself even more closely to Moscow via long term natural gas contracts. Unfortunately, Hungarian electricity generation, through the Paks nuclear power plant and gas power plants is also dependent on Russia and the situation is not much better for oil imports either.

02

Since EU sanctions on Russian oil imports are apparently blocked by the Hungarian government, the country's heavy dependence on Russian oil now threatens to turn into an EU-level political crisis. Decoupling from Russian oil, and as a consequence Hungarian support for EU-wide sanctions is not possible in the short term, mainly because the Hungarian central budget is in a very weak position. Notably, very extensive external financing would be needed due to large social transfers motivated by the elections in April, and the burden of the most generous utility price cap policy in the EU. EU transfers - on which the country is particularly dependent – are also being called into question due to the EU Commission's concerns about the state of democracy in Hungary.



03

The state oil company MOL's business model is key in the Hungarian oil embargo veto: MOL has a significant cost advantage over its competitors which builds on Russian oil imports and cheap pipeline transportation. Because MOL's margins raised significantly since the outbreak of the war, it is highly unlikely the Hungarian government will give up on Russian oil. This is true despite the fact that unlike for gas or nuclear fuels, the oil embargo on Russian blends would not endanger the security of supply of the country.

04

All in all, about USD 3 billion would be needed in the next 2 years to overcome budget gaps. In a highly unlikely scenario in which the government decides to (partially) decouple itself from Russian energy, the total external financing needs would be as high as USD 18-19 billion. This cannot be covered without external financing and there is a mounting pressure on the government to come to an agreement with the EU on the Rule of Law mechanism. If it fails to do so, it will have scarcely any room to maneuver and the Hungarian leadership might have to consider a bilateral loan from China as well.



1. THE HUNGARIAN ECONOMY AND ITS DEPENDENCIES

The recently re-elected Hungarian government faces serious financial and political challenges due to external and internal factors alike. On April 3, 2022, the ruling Fidesz-KDNP coalition won the Hungarian parliamentary elections with a constitutional (two-thirds) majority. In the run-up to the election, the government increased its popularity with several expensive financial transfers. These transfers combined with the economic effects of the Russian aggression against Ukraine have worsened the already serious financial situation caused by the steep deterioration in the international economic environment. Significant adjustments are needed in the next one and a half years and a number of geopolitical questions need to be answered on how the government will finance planned investments and reduce deficits and inflationary pressures.

Structurally, the Hungarian economy is amongst those countries in the EU which are most dependent on the external environment (Chart 1). Hungarian GDP per capita ranks the country as the 7th poorest in the EU. It lags even further in terms of per capita consumption data, which is more indicative of living standards. Nevertheless, in 2020, Hungary reached 76 percent of the EU's development in terms of GDP per capita, which is a significant improvement compared to the 30-35 percent level of the early 1990s. This convergence was heavily supported by external financing mainly through foreign direct investment, but Western financial funds also played their part in the process by financing government debt. Despite the catch-up seen in the last 3 decades, living standards failed to follow proportionally due to a number of factors (notably the large GDP-GNI gap, and depreciation of the HUF).

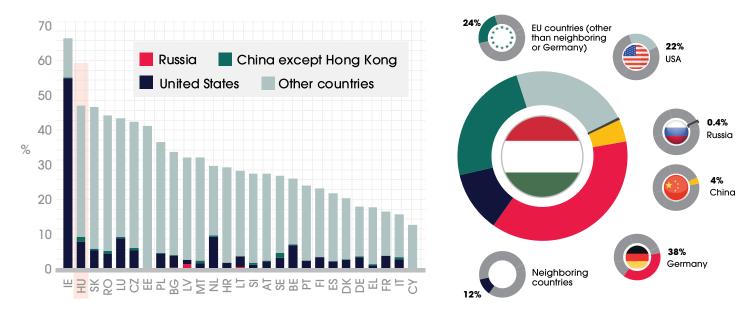


Chart 1: Foreign affiliates statistic: value added in the percentage of total business economy (left) and the breakdown of Hungarian foreign affiliates by country (right) (2018)¹

¹ Source: Eurostat FATS statistics and Equilibrium Institute



Currently, Hungary is amongst the most open economies in the world, where US companies play an instrumental role as they are the second most important investors following Germany. Russian and Chinese investments are practically non-existent, however, several key infrastructure projects have been agreed upon bilaterally, the most important being the Paks II nuclear power plant with Russia (Chart 2).

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Paks II Nuclear Budapest- Fudan University
Power Plant, Belgrade Railway, V0 Railway, Campus Budapest,
USD 12.4 bn USD 2.1 bn USD 1.9 bn USD 1.2 bn

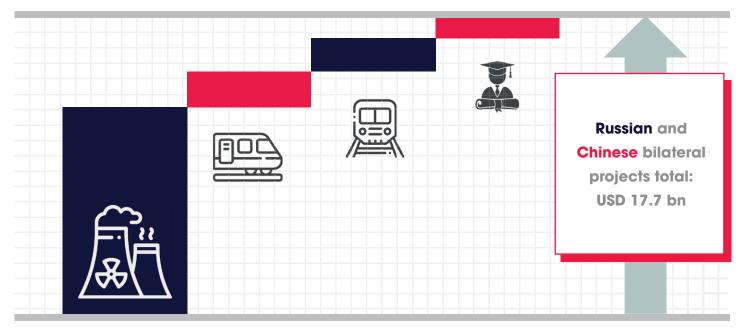


Chart 2: Large bilaterally agreed projects with Russia and China²

² Source: Equilibrium Institute based on media information



The state plays a major role in the economy even by European standards. This has mainly been enabled by EU transfers, but other factors have played an important role as well.

In the 1990s, the government made serious legal and financial efforts to attract foreign direct investment (FDI), mainly in manufacturing. As a result, Hungarian FDI stock boomed and it remains amongst the highest in Europe (also contributing to the openness of the economy). The share of public sector employment is high, while the amount of the state subsidies to companies with Hungarian corporate residence (including many foreign-owned) was the largest among all member states of the EU between 2015 and 2020. Hungary benefited the most from EU funds, which since Hungary's EU in 2004 have become the country's most important economic development policy tool. In 2013, the Hungarian Central Bank (MNB) also stepped into the development policy space with preferential loans targeted at the SME sector and a selective company bond program, attracting much criticism.

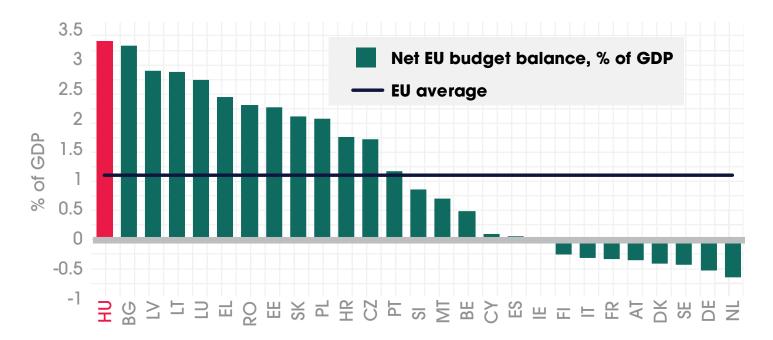


Chart 3: Net EU budgetary positions by member state, average between 2015-2020³

³ Source: European Commission, Eurostat and Equilibrium Institute



2. FACTORS LIMITING THE GOVERNMENT'S ROOM FOR MANEUVER

The government's economic policy draws on the Hungarian nostalgia of the late socialist era, with significant social transfers and selective price controls, resulting in a high level of household consumption. This policy has come under serious pressure with the war in Ukraine. Many recent social expenditures undoubtedly contributed to winning the elections, however, posed a significant burden on the budget too.

The pre-election transfers amounted to approximately 2 percent of the GDP. A price cap was set on motor fuel, putting the national oil company MOL under pressure. Price control has been in place for household energy as well (ever since 2012), but with the sharp rise of energy (especially natural gas) prices, the system turned to be financially unsustainable, thus the government had to

make significant current and capital transfers to the utility companies. Energy prices rose further with the war in Ukraine, requiring increasing budgetary support for the providers. To fill these budget gaps, the government will need to make serious adjustments in such a way that the population does not feel the direct impacts, to prevent a negative spiral of declining confidence. However, if the government seeks to avoid stagflation, it needs serious external financing as well. This looks particularly difficult as EU transfers are currently not available to the country because of the so-called Rule of Law mechanism of the EU. The European Commission initiated an almost complete suspension of capital transfers to Hungary (agriculture is an exemption) until the Government decides to carry out reforms of the state aid system and until deficiencies in rule of law and human rights are addressed. We will assess the external financing needs of the economy at the end of this document.

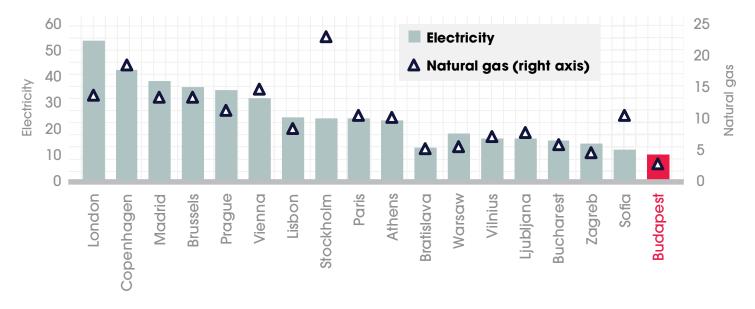


Chart 4: Energy prices in European capitals measured in eurocent/kWh (as of March 2022)⁴

⁴ Source: Hungarian Energy and Public Utility Regulatory Authority and Equilibrium Institute



Hungary is one of the most dependent countries on Russian energy imports in the EU. At the same time, Hungary is an important supplier of fuels to the region, thanks to its refinery capacities in Hungary and Slovakia. This has very important geopolitical implications and can help us to understand the reason why Hungary threatened to veto EU oil import sanctions on Russia. Since Hungary is landlocked, alternative oil import routes are few and far between, while the Hungarian oil company MOL would lose profits if it were to switch from Ural oil to non-Russian blends. The latter is because, in addition to the (unclear) amount of investment needed to provide the capability to process different blends, MOL would need to buy non-Russian oil blends at world market prices rather than the currently very cheap Russian blend. Hungarian PM Viktor Orbán seems to be trading his political veto for financial support from the EU. The EU is reluctant to provide financial help for Hungary, as it has contradicted the credibility of the Rule of Law mechanism (see the end of the first paragraph in this section).

Hungary is one of the most dependent countries on Russian energy imports in the EU.

Besides the high levels of dependency, the government is in a delicate situation because it will soon need to choose between keeping the very popular price cap on motor fuels or striking a blow to bilateral relations with regional partners. Since Hungarian fuel prices are so low compared to neighboring countries, there is a significant amount of "fuel tourism" resulting in a high probability that Hungarian production might not keep up with the abnormal demand (current demand is 30-40 percent higher than the all-time high). If the government chooses to stick with the price cap, it will probably need to impose export restrictions, which would result in a serious threat to supplies to Slovakia, the Czechia and southern Poland. Alternatively, if Hungary chooses to abolish the price controls, an immediate 30 percent increase in prices could quickly weaken political support for the government. Therefore, it is more likely that the government will not accept any further EU proposals on the Russian oil ban - unless compensated financially.

While decoupling from Russian oil seems (at least) technically feasible in a 2-4 years time span, it is unlikely to happen for natural gas and nuclear fuels. The current nuclear power plant in Paks was built in the communist era by a soviet company, but it is still being supplied by Rosatom. The power plant reaches the end of its life cycle, thus a second power plant - also built with Russian technology and fuels - has been agreed upon with Rosatom. The nominal value of the Paks II project, signed in December 2014, is approximately USD 13 billion, mostly financed from a long term Russian loan. However, if economic sanctions on Russia are set to remain in the long term, it is highly unlikely this project is going to be continued. A possible, short term alternative would be the extension of the life cycle of the current power plant, but is it unknown whether this is a feasible option or not. If this possibility is not available, the government would need to look for an alternative nuclear option from the West (France or US could be options), however, such an investment falls well beyond 2026. Relaunching the planning process would have high political costs as well. Gas decoupling - at least partially - is theoretically possible through Croatian port capacities, while better connectivity to Italian ports with LNG terminals could also be an option. Yet, LNG would be much more expensive than Russian gas and there is considerable uncertainty about whether it would be sufficient to supply the country.

While decoupling from Russian oil seems (at least) technically feasible in a 2-4 years time span, it is unlikely to happen for natural gas and nuclear fuels.

A small, landlocked country like Hungary could also consider western reverse flows as an alternative. However, at the present time they are mostly delivering Russian supplies as well. Since natural gas is in large part used in electricity generation, Hungary could consider renewables too (solar and wind energy), however in the absence of viable storage technologies, gas balancing capacities have to follow the development of renewables. Temporarily, the recommissioning of old coal power plants could be an

option, but this outcome would go against EU commitments for green transition and has serious feasibility issues. Nevertheless, it is very hard to imagine that the country can completely decouple itself from Russian gas any time **soon.** A very important step to take is the reduction of gas demand primarily through insulation programs for residential buildings. However, in the absence of EU funds, it is not likely to happen very fast. A European Bank for Reconstruction and Development (EBRD) loan could be also considered, especially since Hungarian government bonds yields are amongst the highest in the EU (currently at 7.5 percent). An EBRD loan would probably be cheaper, but certainly more expensive than the EU funds blocked by the Rule of Law mechanism. The future of energy-intensive industries (especially the chemical industry) is in doubt, but no government intervention can be foreseen in the near future, due to the tight budget. Rising energy and commodity prices are the greatest inflation-fuelling factors in Hungary, which imposes constraints on the central bank's policy.

The Hungarian economy will probably need an additional USD 3.2 billion in financing in the next two years without energy decoupling, and USD 18-19 billion if it seeks to make itself independent - at least partially - from Russia. The intentionally polarized financing scenarios for the next two years are the following:



No more EU sanctions on Russia, but energy prices remain high (ie. the "baseline path", red time series on Chart 5);



Oil embargo on Russia, with a forced energy decoupling from Russia ("energy shift" path, dashed line on Chart 5).

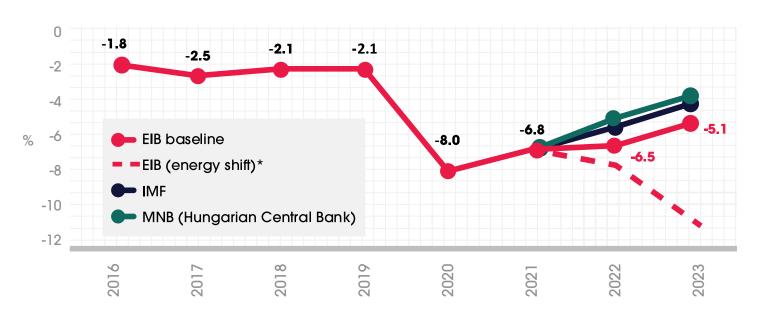


Chart 5: Budget deficit in the percentage of GDP⁵

⁵ Source: Equilibrium Institute estimates, IMF and MNB (Hungarian Central Bank)



We have calculated the need for external financing visa-vis the budget deficit, with the important assumption that the government agrees with the EU on the Rule of Law mechanism, which through the inflow of EU funds would alleviate the need for external financing of the budget. The MNB (Hungarian Central Bank) forecast can be considered as a reference point for a balanced path, which would enable it to avoid possible downgrades from credit rating agencies. All in all, to return to a balanced path, Hungary would need an additional 1.6 percentage point (USD 2.8 billion) financing each year. For the much more ambitious energy shift (ie. partial transition from Russian energy) path, the costs are much higher: in comparison to the balanced path (MNB forecast), a 2.8 and 7.5 percentage point in GDP of financing is needed in 2022 and 2023, corresponding to USD 4.6 and 13.9 billion respectively.

The Hungarian economy will probably need an additional USD 3.2 billion in financing in the next two years without energy decoupling, and 18-19 billion if it seeks to make itself independent – at least partially – from Russia.

External financing needs (compared to balanced path)						
		2022	2023	TOTAL		
% of GDP	Baseline	1.6	1.6	3.2		
	Energy shift	2.8	7.6	10.3		
bn USD	Baseline	2.8	2.9	5.7		
	Energy shift	4.7	13.9	18.6		

Table 1: External financing needs of the Hungarian budget⁶

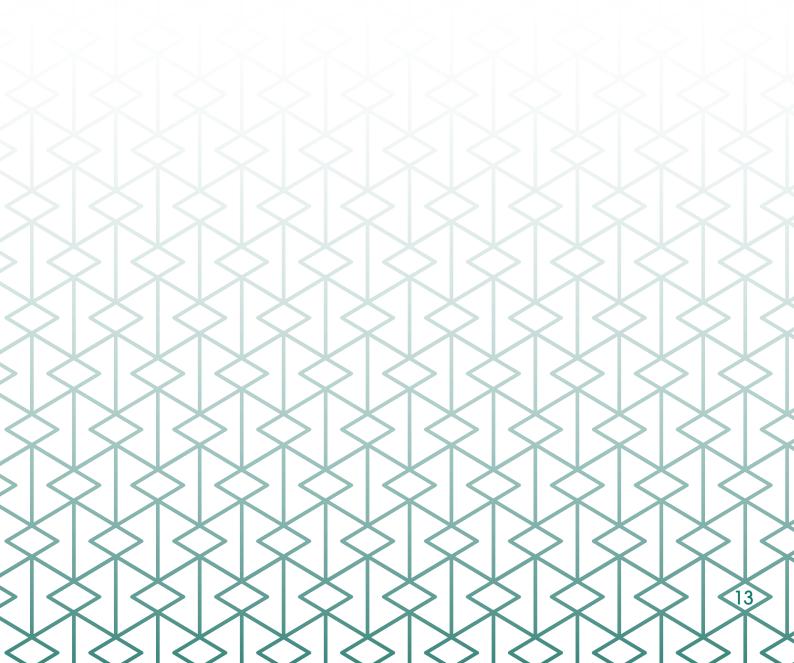
⁶ Balanced path = MNB (Hungarian Central Bank) forecast Source: Equilibrium Institute estimates



3. CONCLUSION

In conclusion, resolving the energy dependence of the Hungarian economy on Russia requires significant external financing, which the country cannot obtain on its own. In addition, the estimate presented above can be considered conservative. It is also unclear to what extent supply chains that could be considered in order to address energy dependence could satisfy Hungarian demand and at what price. As a result, based on the assessment of the Equilibrium Institute, Hungary's Russian (energy) dependence cannot be effectively reduced in the short term. Due to the high investment requirements, significant structural change in energy dependency can only be

imagined in a decade-long perspective, with a substantial need for alternative external financing. At the same time, government steps toward decoupling are currently insufficient, which is why it is necessary to increase the resources spent on renewables, as well as the need to set up significant gas balancing capacities and diversify gas imports. Based on our estimates, around USD 3 billion would be needed for the budget to return to a more balanced path (to a level below 5 percent of the GDP), while partial energy decoupling from Russia would need an additional USD 18 to 19 billion in the next 2 years.



ABOUT US

The Equilibrium Institute is a future-oriented Hungarian think tank. We are writing political, economic, and cultural visions and policy proposals for Hungary. We are establishing an intellectual background to underpin the success of Hungarians in the rapidly changing 21st century.

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Future for Hungary >>

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