Conflict and Civicness Research Group at LSE

PeaceRep
Peace and Conflict Resolution Evidence Platform

CAN UKRAINE PAY ITS DEBTS?

Debt sustainability from the war economy to recovery

10 June 2024

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Can Ukraine pay its debts?

Research report

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PeaceRep's Ukraine programme

PeaceRep's Ukraine programme is a multi-partner initiative that provides evidence, insight, academic research and policy analysis from Ukraine and the wider region to support Ukrainian sovereignty, territorial integrity and democracy in the face of the Russian invasion. PeaceRep's Ukraine programme is led by the London School of Economics and Political Science (LSE) partnering with the Kyiv School of Economics (KSE) in Ukraine, the Leibniz Institute for East and Southeast European Studies (IOS) in Germany, the Institute of Human Sciences (IWM) in Austria and Jagiellonian University in Poland. Through our collaboration with KSE we work closely with researchers, educationalists and civic activists in Ukraine to ensure that policy solutions are grounded in robust evidence and are calibrated to support democratic outcomes.

About the Authors

Barrie B. F. Hebb is an economist specializing on providing humanitarian and development assistance to vulnerable people in the context of natural, people-made (war), and economic disasters. His research and policy interests have focused primarily on the impact the collapse government institutions had on low-income communities in transition economies in Eastern Europe and Eurasia. He has 27 years of experience based primarily in this region working with a range of organizations, agencies and foundations and has lectured in economics in universities in Canada, Kazakhstan, Kyrgyzstan, Ukraine and Uzbekistan.

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Introduction

Since the outset of the full-scale Russian invasion, PeaceRep's Ukraine team have been developing a programme of work to meet Ukraine's immediate economy needs and to support the country's underlying resilience in the war. Our research is informed by an analysis of the political economy of war and conflict, and the need for Ukraine to avoid a situation of intractable violence of the type seen in a number of cases studies by the PeaceRep programme. These cases are extremely challenging for peace and justice transition processes due to the incentive structure that they tend to develop. When incomes fall sharply and economic activity becomes very depressed, state institutions and the civilian population become vulnerable to predatory practices. A breakdown of political authority, the proliferation of armed non-state actors and a multiplication of intervening powers with competing, often irreconcilable agendas, can make such 'forever wars' hard to stop.

With two years passing since the full-scale invasion, Ukraine has up until now avoided this dynamic. It has developed a political economy of defence and security that shares some features with classical interstate conflicts. The state has expanded its economic role to support demand in the economy and is increasingly 'directive' in its approach to the war-effort.[1] Yet, Ukraine's proliferation of network and actors developing informal economies and self-help systems also add nuance this picture.[2] At the same time, to fight a war that remains highly asymmetric, Ukraine is very dependent on external financial and military support from its allies.[3] This complicated and interconnected landscape makes on-going research on Ukraine's economic resilience and state capacity crucial.

Ukraine's development since the 2014 Revolution of Dignity has also taken on some of the features of political economies of violence, especially in the form of the patron-client relations that Russia has attempted to cultivate in the ten years since its first invasion,[4] but these pressures have been contained by a stronger trend to civic democratic state building. Developing an economy that is able to support the wellbeing of the population, including protecting citizens physical security, is a vital foundation to avoiding a 'forever war' in Ukraine.[5]

By placing Ukraine in a comparative perspective with situations of intractable conflict, we can recognise that like these other political economies the country occupies "a subordinate position in the world economic order, and.. [is] subject to movements in global markets and regulatory regimes outside their control (for example, in …commodity prices, trade rules and agreements or the regulation of illicit financial flows). As a result, [like other such states, it is] … vulnerable to external economic, political, and environmental shocks".[6]

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[1] Cooper, L., 2024. 'Ukraine is quietly abandoning neoliberalism'. International Politics and Society. https://www.ips-journal.eu/topics/economy-and-ecology/ukraine-is-quietly-abandoning-neoliberalism-7282/ See also: Cooper, L. Cooper, Luke (2022) Market economics in an all-out-war? Assessing economic and political risks to the Ukrainian war effort. London School of Economics and Political Science, London, UK. https://peacerep.org/publication/market-economics-ukraine/

[2] Taras Fedirko and Volodymyr Artiukh, 'War and Dependent State Formation in Ukraine', forthcoming; see also Karolina Czerska-Shaw and Tamar Jacoby, 'Mapping Ukrainian Civicness Abroad in the War Effort: A Case Study of Poland (PeaceRep Report)' (London: London School of Economics and Political Science, 8 April 2023), https://peacerep.org/publication/mapping-ukrainian-civicness-abroad-poland/.

[3] Fedirko and Artiukh, 'War and Dependent State Formation in Ukraine'.

[4] Gueudet, S. (2024). The Ukraine War and the Nature of Russian Power (PeaceRep Ukraine Report). Conflict and Civicness Research Group, London School of Economics

[5] Cooper, L., and Kaldor, M. 'In Europe's gift: How to avoid a Ukraine "forever war"'. ECFR. https://ecfr.eu/article/in-europes-gift-how-to-avoid-a-ukraine-forever-war/

[6] pp. 5-6. Kaldor, M., Radice, H., De Waal, A., et al. 2020. Evidence from the Conflict Research Programme: submission to the Integrated Review of Security, Defence, Development and Foreign Policy. Conflict Research Programme, London School of Economics and Political Science, London, UK. See also: de Waal, A., Sarkar, A., Detzner, S., and Spatz, B., A Theory of Change for Violent Political Markets, Conflict Research Programme Memo, February 2020.

External debt liabilities and associated balance of payment problems are a key component of such vulnerabilities. Indeed, situations of intractable violence have been associated with the long-term fallout from the Third World debt crisis of the 1980s and the subsequent push for structural adjustment programmes by international financial institutions.[7] A negative feedback loop in which austerity and fiscal adjustment undermined the productive capacity of the economy, accelerating the fall in incomes and deepening vulnerability to external shocks, created an incentive structure favourable to predation and political violence.[8] Once this logic is embedded and political authority becomes highly fragmented, violence may become self-reproducing and path dependent.

This research report seeks to contribute evidence and analysis that can assist Ukraine in avoiding these dynamics. It analyses Ukraine's debt sustainability as a function of the size and income generating capacity of the working population, rather than conventional measure of the debt to GDP ratio. Utilising this metric can help avoid damaging policies such as austerity that achieve nominal improvements in debt to GDP ratio at the expense of undermining long-term productive capacity and economic performance. While the report highlights the enormous challenges that Ukraine faces, and the daily struggle of the majority of the population to get by, it also identifies significant growth potential.

Published as part of PeaceRep-Ukraine's work for the 2024 Ukraine Recovery Conference in Berlin (11th and 12th June), the report illustrates the need for donors and partners to make a long-term financial commitment to Ukraine's fiscal needs while the government develops industrial policies that prioritise productivity growth.

Executive summary

Significant growth in the level of Ukraine's national debt has implications far beyond its ability to finance essential social services like healthcare and education. Rising debt payments could divert funds away from critical state investments in infrastructure and reconstruction, and could necessitate borrowing and taxation that will reduce available resources for private sector investment and income growth. Ultimately, public debts have to be paid back by the economically active population (i.e., the active workforce) of Ukraine.

The role of the income of the working population is rarely recognised as fundamental to the sustainability of public debt. Conventional wisdom dictates that debt to GDP should be the accepted measure of debt sustainability. Problematically, this can mean that measures that undermine the long-term productivity capacity of the economy such as austerity are often prioritised to achieve short term nominal improvements in debt to GDP ratios at the expense of long-term sustainable growth. This research report urges a move away from this thinking. Instead, it focuses policy attention on 'debt per economically active worker'.

This approach puts the emphasis on productivity and specifically the amount of value (income) generated by each worker. This can support evidence-based policy making to optimize labour, land and capital productivity while also improving transparency and good governance. The aim of such a shift in policy framework is to support Ukraine to leverage the resources the country has to reach its full potential as a place to attract and retain economic activity.

[7] Bryceson, D. & Sarkar, P. & Fennell, S. & Singh, A., 2010. "Globalisation, Structural Adjustment and African Agriculture: Analysis and Evidence," Working Papers wp414, Centre for Business Research, University of Cambridge.
[8] Robert H. Bates, *When Things Fell Apart: State Failure in Late-Century Africa* (Cambridge: Cambridge University Press, 2008).

Importantly, this means that the question of Ukraine's debt sustainability cannot be answered categorically in a 'yes' or 'no' fashion, but rather with the caution that the complexity of the issue deserves. Debt sustainability will depend on the terms of repayment after the restructuring and write off in obligations that will likely follow the conclusion of the war. The Government of Ukraine has successfully secured a landmark debt suspension agreement with bondholders until March 2027. In this context, and despite its on-going need for significant fiscal support, the Government of Ukraine would be advised to *not* return to private bond markets prior to the end of the war, because this would complicate subsequent negotiations with creditors over its external debts.

Whether the Ukrainian state is able to meet its external debt obligations in the future will depend on the extent that it can develop a suite of policies that maximises the growth potential of its productive assets, incentives workers currently overseas to return to Ukraine, and secures foreign investment – all of which are highly 'security sensitive', i.e., depend on the eventual outcome of the war. In the course of the war, the Ukrainians will need to intervene on a broad scale into the economy.

As markets fail in wartime, the state will have to drive forward economic demand. While this intensifies pressure on fiscal resources, it also creates a window of opportunity to expand and develop the institutional capacity of the state. To successfully resist the full-scale invasion, the Ukrainian state will have to (a) absorb and utilise efficiently an influx of funds through domestic taxation and external financial flows and (b) strategically plan and rapidly deliver small to large scale projects. While this capacity will be focused on security needs in the short to medium term, it can potentially be recalibrated and retooled in the future as the situation changes and Ukraine is able to invest in developmental goals.

The research report presents a wide range of macroeconomic data to assess the strength of the Ukrainian economy and, by extension, the state's capacity to meet its external liabilities. If debt sustainability is measured against *the size and productive capacity of the working population,* this unfortunately underlines the scale of the challenge that Ukraine faces. Even prior to the full-scale invasion, demographic trends such as the age dependency ratio were moving in the wrong direction. Furthermore, the incomes of the working population are chronically low and have worsened dramatically since February 2022. The number of Ukrainians with incomes at or below subsistence in Ukraine is often underestimated in data collected in workplaces with 10 or more formally employed workers. Taking a more holistic view of the data that captures in particular levels of rural poverty unfortunately shows that the income situation is worse than is often reported.

With a large majority of Ukrainians having incomes at or below a subsistence level, this means that they cannot be expected to contribute to the taxation revenue mobilisation that both supports the country's self-defence and ultimately its debt repayments. By focusing on growing the incomes of the working population, Ukraine can both tackle this pressing immediate issue and incentivise return migration. To do this, means prioritising improvement in productivity alongside investing in public services and infrastructure.

The report makes a number of warnings on the Ukrainian state's fiscal position:

- The debt burden will grow further before the war ends.
- Unfunded liabilities such as veteran payments and reconstruction costs will accumulate during the war. These are not accounted for as formal liabilities but are a factor when considering the state's capacity to make debt repayments in the future.
- The war creates a challenging environment for economic growth. The state is critical to supporting economic demand but has only limited fiscal capacity to do so.

- Public asset values are declining during the war. This makes it an inopportune time to pursue privatisation, but the state may feel under pressure to engage in sell offs.
- Significant return migration is highly unlikely while the war is on-going and uncertain thereafter.
- Critical human capital losses are likely very significant and poorly accounted for in conventional measures of 'loss and damage'. The sectoral implications of this are significant as the loss of skilled industrial and construction workers is likely to be more significant than the impact of the war on the labour market as a whole.

The report makes the following specific recommendations to Ukraine's donors:

- Recognising Ukraine's serious financing challenges, maintain and as far possible increase long-term economic support with a preference for aid not loans.
- Indicate now a willingness publicly to restructure Ukraine's public debt liabilities as part of a future post-war reconstruction and development plan.

The report makes a number of recommendations for the Government of Ukraine's economic strategy, but which may also have implications for country's facing analogous challenges:

- Move beyond debt to GDP ratios to focus on debt per capita and debt per economically active (employed) person with short to medium term forecasts.
- Widen the discussion on Ukraine's debt sustainability to include other debts and liabilities at the macro and micro levels.
- Broaden the discussion on human capital across age levels, forms of educational programmes, and "relevant" skills in order to realise Ukraine's growth potential.
- Move beyond quantitative approaches of job creation and unemployment statistics to incorporate qualitative measures by developing a "decent work" agenda.
- Diversify key performance indicators (KPI) to include value added per worker and per hectare to assist the development of a strategy for productivity growth.
- Develop a comprehensive strategy for productivity growth that is based on an assessment of sectoral needs and opportunities and a recognition of chronic and long-term economic underperformance, requiring a new framework and approach.

The aim of these proposals is to realise Ukraine's significant economic potential through a strategy for sustainable improvements in incomes, productivity and productive capacity.

A challenging starting point

Governments rely on borrowing during times of natural disasters or armed conflicts. These situations see expenses rise sharply at just the moment that tax revenues decline. In wartime, governments divert resources from civilian to defence expenditures and assert downward pressure on reserves. They face the challenge of both meeting the demands of the military for investments and sustaining core social infrastructures and wellbeing. Previous debt accumulation can put states under additional pressure while failure to make payments can further hinder the government's ability to roll the debt over, continue to borrow, and remain in a creditworthy state to finance recovery and reconstruction. In short, rising demands for expenditure combines with a reduced ability to finance it.

Having experienced multiple crises prior to the 2022 invasion, it is not surprising that the Government of Ukraine had already accumulated significant new debt. Tax revenues were low during the initial years of transition, but due to the duration and depth of that

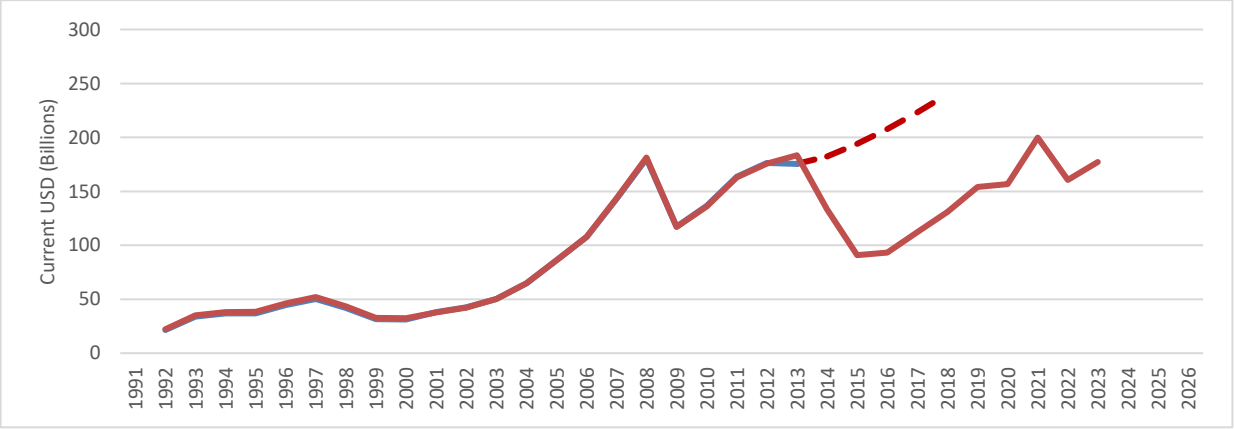
crisis, the ability to borrow funds externally was also very low. Poor aggregate income performance has long been a problem for Ukraine's development. The government also could not borrow significant amounts from the Ukrainian population due to limited domestic income and savings. While these grew from the early 2000s, the 2008 financial crisis necessitated Ukraine taking on considerable debt. The crisis was followed by a period of relatively strong growth that created hopes of paying down debts, but the 2014 invasion of Ukraine by Russia kicked off another period of intense debt accumulation.

National debt may be calculated in divergent ways[9], which differ for example in how they take account of flexible interest rates or fluctuations in exchange rates. While different methodologies may yield different estimates, Ukraine has clearly experienced a sharp upward trend since 2019, one that appears on track to continue to rise further.

By one estimate, total gross national debt has increased from $50.59 billion USD in 2019 to $135.28 billion USD in 2023.[10] The national debt level in and of itself is, however, less meaningful without looking at how much income Ukraine generates domestically per year. This indicates its potential to carry the debt burden in the future. To understand that potential, we should briefly investigate the dynamics of Ukraine's GDP.

Ukraine's post-independence economic development has been punctuated by crises. After prolonged stagnation in the first phase of the transition, it enjoyed a period of credit-based growth in the early 2000s. Unfortunately, this did not establish the basis for sustainable long-term growth and reflected the global credit boom that led to the 2008 financial crisis. While Ukraine recovered to its pre-crisis level by the end of 2013, with a forecast for further growth exceeding $200 billion USD per year, the conflict that started in 2014 caused another severe and prolonged decline, with the country's GDP roughly 80 billion USD per year lower than it was forecast to reach (or roughly $640 billion USD in lost income between 2014 and 2021). After a set back with COVID-19, there were further signs of some growth before the 2022 invasion resulted in a sharp decline in income generation. Taken together, these crises have hurt Ukraine's fundamental creditworthiness since they translate into weak economic performance and significant amounts of lost income that could have been used to cover funds that were borrowed both publicly and privately.

Figure 1: GDP in Ukraine, 1992-2023

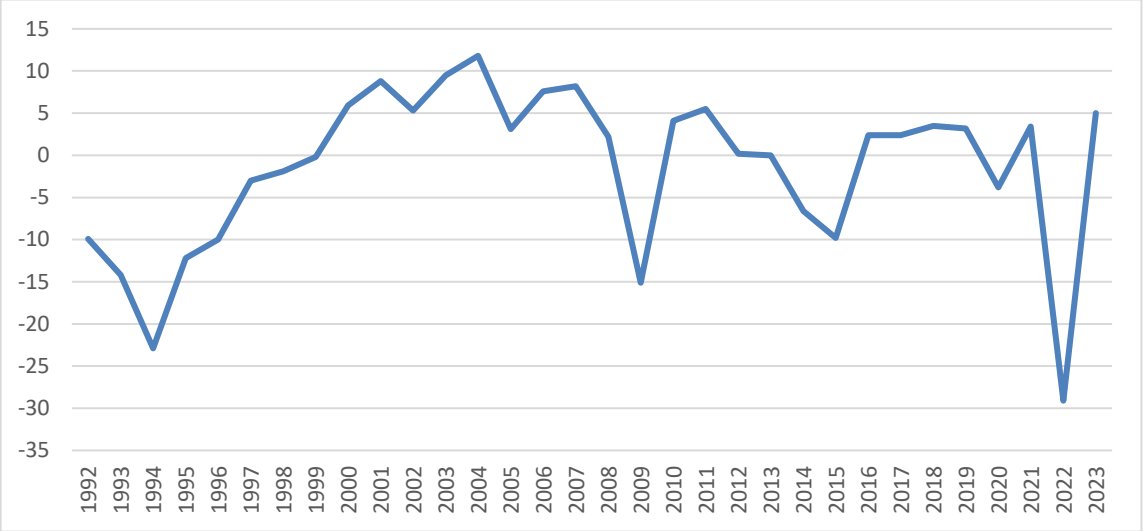


Source: IMF World Economic Outlook Indicators Database, April 2024 (current prices).

[9] Panizza, U. (2008, March). Domestic and External Debt in Developing Countries: Discussion Paper No. 188. Retrieved from https://digitallibrary.un.org/record/627594?ln=en

[10] O'Neill, A. (2023, August 9). National debt of Ukraine 2023. Statista. Retrieved from https://www.statista.com/statistics/531998/national-debt-of-ukraine/

Figure 2: Real GDP Growth in Ukraine, 1992-2023 (% growth/contraction each year)

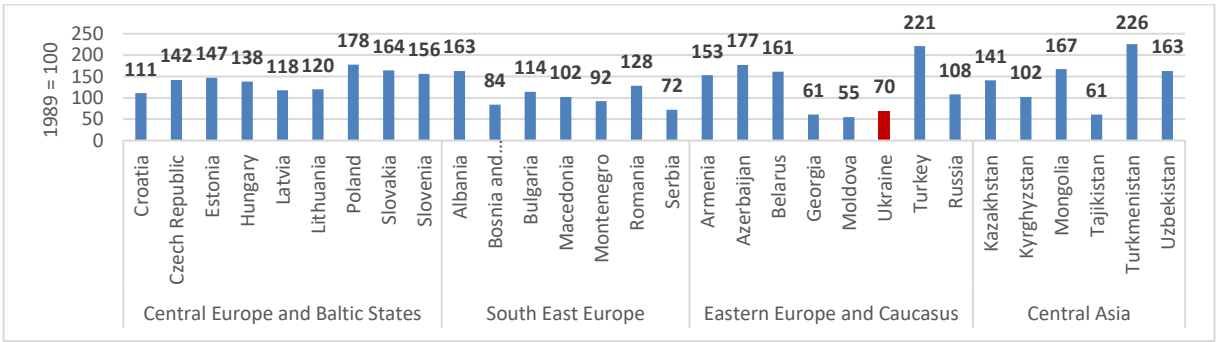


Source: IMF Datamapper

While significant, these figures should be used with extreme caution. As Figure 1 utilises current prices, it is vulnerable to distortions arising from the impact of the devaluation of the Hryvnia in relation to the USD, especially in 2015 (25%) and is not inflation adjusted. To mitigate this effect, figure 2 presents real GDP growth across the same period. In both cases, it should be noted that Ukrainian GDP data excludes territories under occupation by foreign forces from 2014 onwards. The latter has become an even more important consideration after the full-scale invasion of Ukraine in February 2022.

Despite their stark character, these figures do not fully capture the extent of disruption from the baseline of the late-Soviet economy in what would become independent Ukraine. In its 2009 Transitions Report, the EBRD estimated the level of real GDP (current GDP adjusted for inflation over time) in 2008 relative to 1989 across the transition economies (see Figure 3). While many of the former communist bloc countries and former Soviet republics experienced downturns of varying levels of severity and impact throughout the 1990s, some had returned to the 1989 level or exceeded it by 2008, especially in Central Europe and the Baltic States. By 2008, Ukraine was only at 70% of its 1991 level of GDP. The country had still not created the political-economic conditions to at least return to the levels of potential present when the country won its independence from the Soviet Union.

Figure 3: Change in Real GDP in Transition Economies, 1989-2008

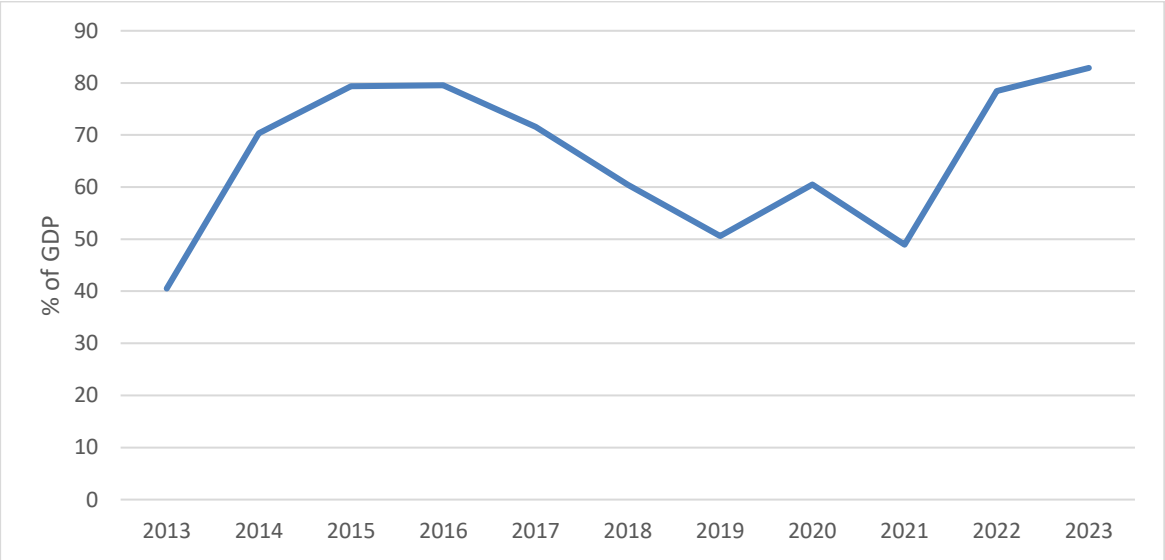


Source: (EBRD, 2009), Annex 1.1.1

This underlines the scale of Ukraine's developmental challenge. In the absence of a plan for sustainable financing and economic growth, a post-war Ukraine may struggle to meet its external obligations and find itself resorting to austerity measures that undermine productive capacity and, accordingly, Ukraine's medium to longer term growth potential.

Using estimates from the IMF, Figure 4 shows the debt level in Ukraine relative to the country's GDP (aggregate or total domestically produced income) from 2013 to 2023. The debt to GDP ratio began to grew sharply with the economic slowdown following the first Russian invasion of Ukraine in 2014. While the country experienced some moderate growth prior to the 2022 full-scale invasion, the debt level accumulated more rapidly with the Russian invasion, and has been estimated to have reached 83% of GDP for 2023.

Figure 4: Gross National Debt to GDP for Ukraine, 2013-2023



Source: IMF/Statista.

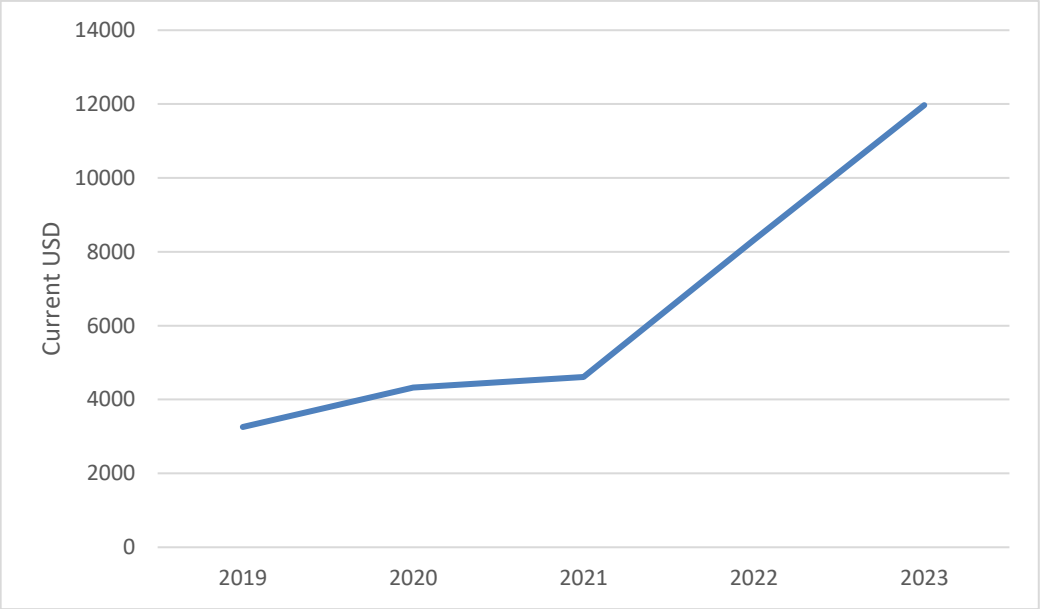
The full-scale invasion has quite obviously created a problematic environment for Ukraine's ability to meet its external obligations, and secure further lending. Credit rating agencies have apportioned Ukraine scores that reflect that lending to the government is considered speculative, well below investment grade and to have a high default risk.

The most recent grades from S&P and Moody's disagree on whether the outlook is stable (Moody's) or negative (S&P) but align on the fundamentals. Coordinated actions from Ukraine's allies and international institutions in tandem with the National Bank of Ukraine and the Government have maintained financial stability. A landmark debt service suspension agreement was secured with creditors in July 2022 and was extended in December 2023 until March 2027. In the context of this relatively favourable agreement, and not withstanding Ukraine's further financing needs, Ukraine would be advised to *not* return to private bond markets prior to the end of the war. Doing so would complicate subsequent negotiations with creditors over restructuring its external debt.

Besides considering the debt level to GDP ratio, further indicators are needed to put these liabilities into perspective and analyse their overall sustainability. Those who work in the country generate income and this value produced per worker (GDP per worker, and not per capita) is used to cover the returns on capital, rent and profits, and taxes and wages. This focus on the productive capacity of the working population (that also have to support through their taxes the non-working population, for the most part pensioners) provides a useful metric for gauging the medium to long-term challenge facing Ukraine. Considering public debt liabilities per worker (i.e., economically active person) in Ukraine recognise that it is this group that have to carry the debt burden by

generating taxable economic activity. This, in turn, foregrounds the demographic challenge facing Ukraine.

Figure 5 Estimated Gross National Debt per Worker



Source: Total Gross National Debt is drawn from Statista/IMF data. The estimate of debt per worker is derived by dividing these figures with estimates of employment based on the World Bank's Development Indicators (up to 2021). Estimates for employment in 2022 and 2023 were based on IMF population estimates assuming a constant employment to population ratio from the World Bank results.

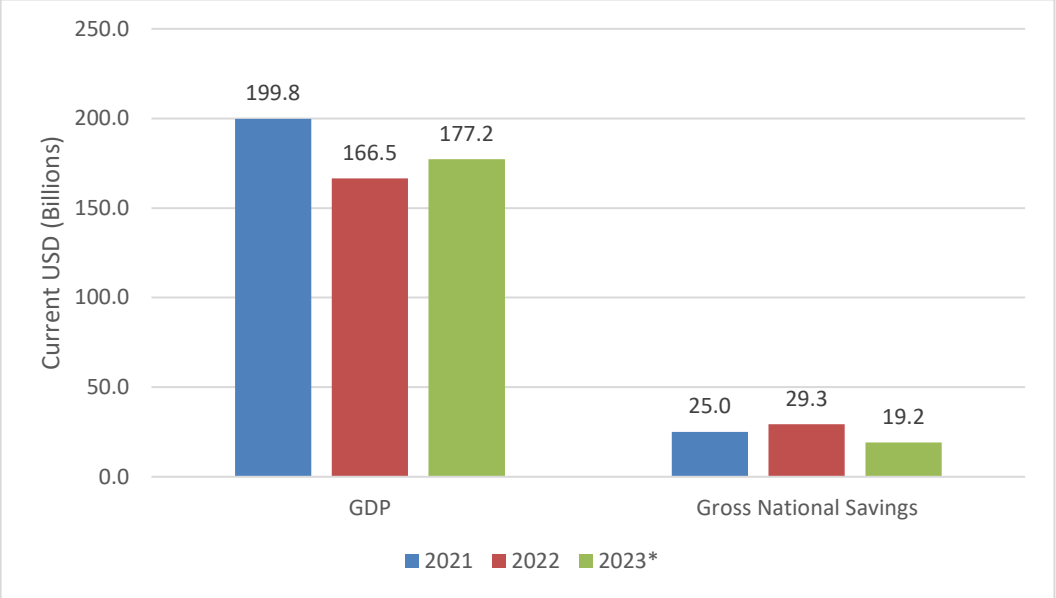
Figure 5 offers a broad estimate of Ukraine's government debt liabilities 'per worker' calculated using Statista/IMF data on public debt and the World Bank's Development Indicators on the size of the economically active population (which is not the same as the working population that would include the economically inactive). As is well known, the size of Ukraine's population was already highly uncertain prior to the full-scale Russian invasion due to the fact that no census has been completed since 2001. Since February 2022, millions of Ukrainians have fled the war and are now residing outside of the territory of Ukraine. In this context, these figures should be treated with considerable caution but offer an indication of Ukraine's financing and growth challenge ahead.

The data shows an upward trend from 2019 with a sharp increase in debt per worker since 2021. While many Ukrainian workers abroad send remittances back to dependents, providing an important mitigation of Ukraine's balance of payments problem and supporting the wellbeing of their friends and family members, the fact remains that the public debt burden falls on those workers who remain in the country. Although the data should be treated as a having a very wide margin of error, due to the uncertainty over the size of the working population, we arrive ats a debt per worker estimate for 2023 of $11,971 USD per worker (based on assuming a working population of 11.3m).

Ukraine's external economic dependence

Ukraine's economy is far more dependent on external markets and support than even the figures cited above indicate, because the country lacks sufficient domestic sources of financing to cover repayments, recovery, reconstruction, let alone the costs related to the ongoing war effort. This makes it sensitive to external market conditions and dependent on external sources of finance.

Figure 6: Domestic Sources of National Financing, Ukraine, 2021-2023



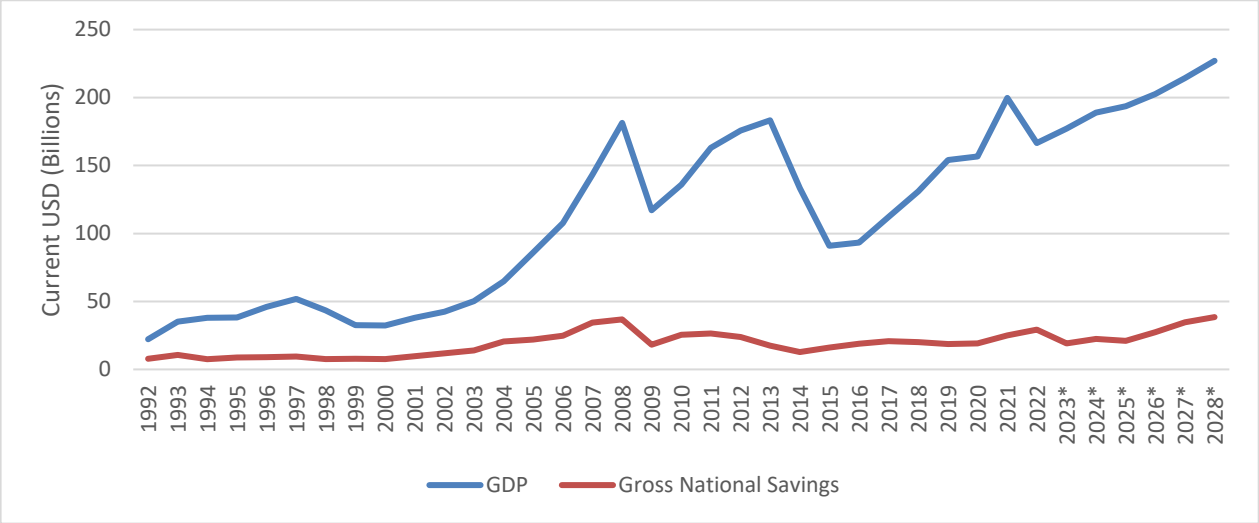
Source: IMF World Economic Outlook Database, April 2024.

Figure 6 above provides a snapshot of Ukraine's GDP and gross domestic savings, 2021 – 2023. The latter are defined as the amount of disposable income that has not been spent on immediate consumption needs. This pool of aggregated funds is a source of potential investment finance. It may for example be drawn on to support the government deficit, private sector investments in housing, reconstruction efforts or other activities. Ukraine's pool of savings has been estimated to total approximately $25 billion USD in 2021, $29.3 billion in 2022 and $19.2 billion in 2023, a range of 10.8% to 17.6% of GDP. Even if these pools of domestic savings remain stable over the foreseeable future, they are grossly insufficient relative to the types of expenses Ukraine is facing. As well as the on-going costs of fighting the war, at the close of 2023, the World Bank estimated Ukraine's recovery and reconstruction costs at some USD $486 billion. Importantly, while in general a country could take steps to suppress consumption to expand its gross domestic savings and drive investment, this is not possible in Ukraine due to the very low incomes of the broad population (a point that we will return to later in this report).

This can be illustrated by contrasting the gross national savings to GDP over the longer-term (see Figure 7). GDP growth has consistently outpaced increases in gross national savings. Rather than generating increased savings, economic growth has supported higher consumption levels. While this was necessary given the low incomes of the population, it means there are limited domestic funds available for investment. This trend for GDP growth to outpace savings is forecast to continue. As a consequence, it is not possible for Ukraine to fund its reconstruction costs, let alone the enormous costs of its war of self-defence with Russia, from domestic sources. Even in the event that Ukraine's gross national savings rebounded to the levels seen in 2021-2022 faster than expected, this would still fall far below the sums that Ukraine is spending on the war (the 2024 budget allocation for Security Sector and Defence is some $42 billion USD[11]).

[11] Converted at current USD. Government of Ukraine, 9 November 2023. "Parliament of Ukraine adopts State Budget for 2024" https://www.kmu.gov.ua/en/news/verkhovna-rada-ukrainy-pryiniala-derzhbiudzhet-na-2024-rik (Accessed 4 June 2024).

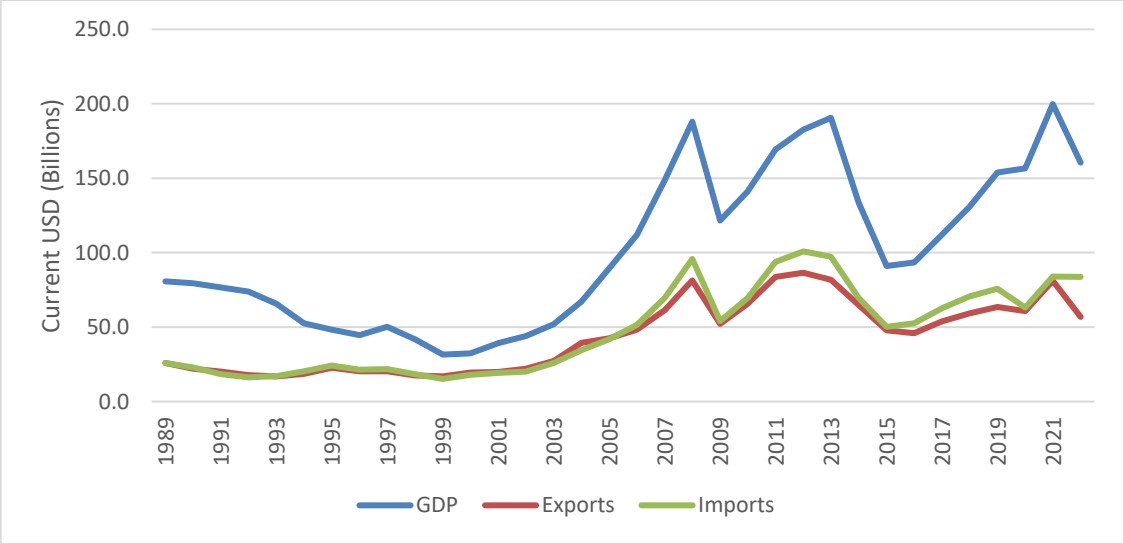
Figure 7: Gross National Savings, Ukraine, 1992-2028



Source: IMF World Economic Outlook Database, April 2024.[12]

Trade in goods and services offers a vital source of income. The money Ukraine receives from its exports less the amount it spends on imports (net exports) constitutes its trade generated income. Here, too, however, the 2014 Russian invasion has had a very disruptive impact. Ukraine has struggled to make up for the loss of its previously largest trading partner. As illustrated in Figure 8 Ukraine's long-term trade performance has been rather weak and the full-scale Russian invasion of Ukraine of 2022 further aggravated this already negative picture. Generating export income through an industrial strategy that identifies Ukraine's existing strengths and seeks to grow and expand these capacities will be vital, both in the course of the war itself and for a future recovery. Boosting Ukraine's export earnings, especially in the large EU market on the 'doorstep', will be vital in order to expand the gross domestic savings that can be drawn on for long-term investment.

Figure 8: GDP, Imports, Exports, Ukraine, 1989-2022

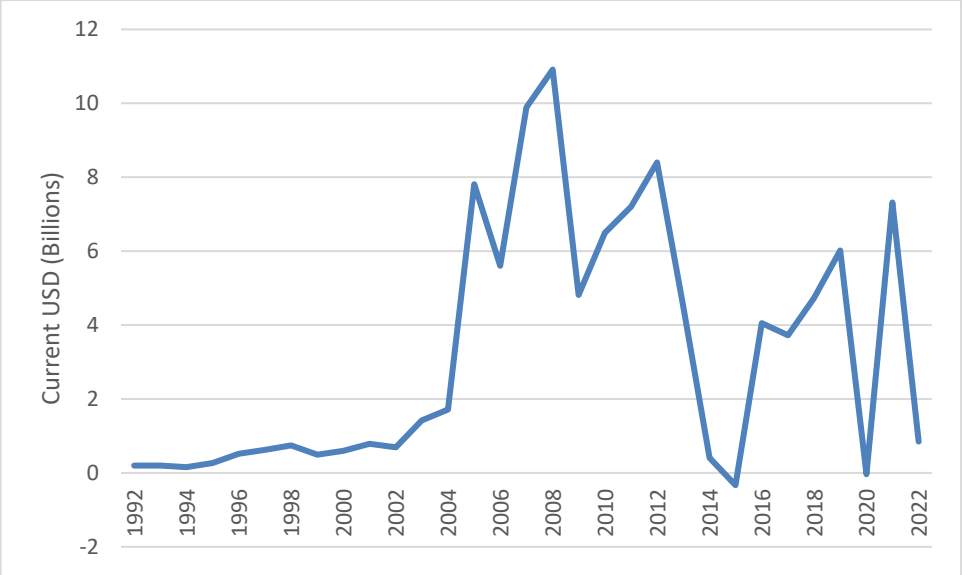


Source: World Bank Development Indicators Database

[12] This graph shows the outpacing of GDP growth in relation to domestic savings. It should not be taken as an illustration of GDP growth *per se* due to the impact of the 2015 devaluation of the Ukrainian Hryvnia to the USD.

With low sources of domestic savings leading to persistently low investment many domestic assets can be left performing at levels far below their potential. Foreign Direct Investments (FDI) when attracted becomes important in such a context. FDI that is effectively leveraged and well directed to boost productive capacity and support labour productivity growth can stimulate domestic economic activity and boost the sophistication and value-generating capacity of supply chains. Unfortunately, in this case, too, Ukraine's current situation is challenging. FDI peaked in 2008 (at the high point of the credit finance consumption boom) and has never recovered to either this level or that in 2013, i.e., immediately prior to the first Russian invasion of Ukraine (See Figure 9).

Figure 9: Net FDI Inflow, Ukraine 1992-2022



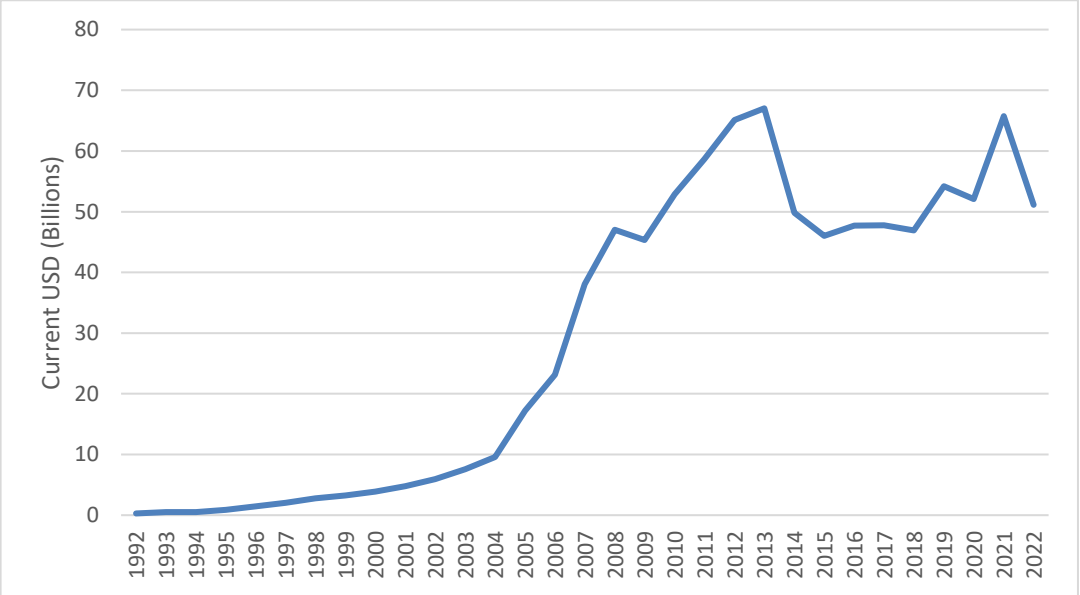
Source: UNCTAD

Accumulated net FDI inflows (Figure 10) tells the same story. Russia's first invasion in 2014 resulted in net outflows which can be seen through the sharp and prolonged drop after 2014. Prior to this Russia was a significant source of FDI, and its subsequent absence can explain some of this drop. However, FDI, especially in greenfield investments is highly security sensitive, making it incredibly challenging to attract and retain in conflict and post-conflict contexts. Other factors, such as infrastructure, the human capital base and proximity to supply chains, all influence investment decisions and are factors that can be shaped by effective institutions and policies. In 2021, prior to the full-scale invasion, Ukraine was still underperforming other post-Soviet states (see Figure 11).

Ukraine's underperformance on FDI predates the emergence of conflict risk and reflects a longer-term economic stagnation relative to its considerable potential. Ukraine has achieved, for example, very high rankings in UNCTAD's FDI potential attraction index due to the availability of rich natural resources, high levels of formal educational attainment, domestic markets (especially important for foreign retail chains), and infrastructure.[13] In the context of this long-term underperformance compared to its widely recognised potential, it is vital that policy-makers consider FDI inflows as one component of a multidimensional economic strategy, and not a panacea for kickstarting rapid growth.

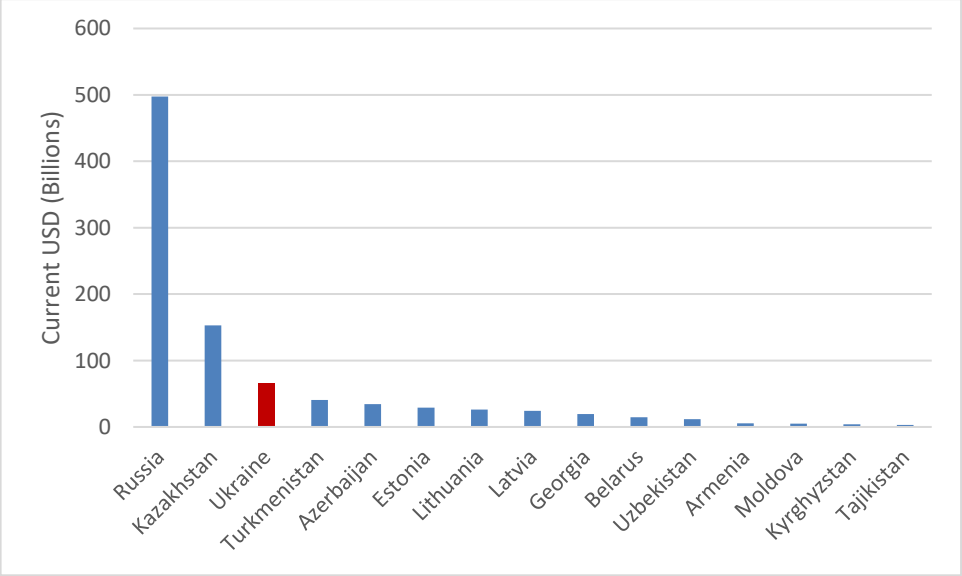
[13] UNCTAD. (2012). World Investment Report 2012: Towards a New Generation of Investment Policies. Retrieved from https://unctad.org/system/files/official-document/wir2012_embargoed_en.pdf

Figure 10: Net FDI Stock, Ukraine, 1992 - 2022



Source: UNCTAD

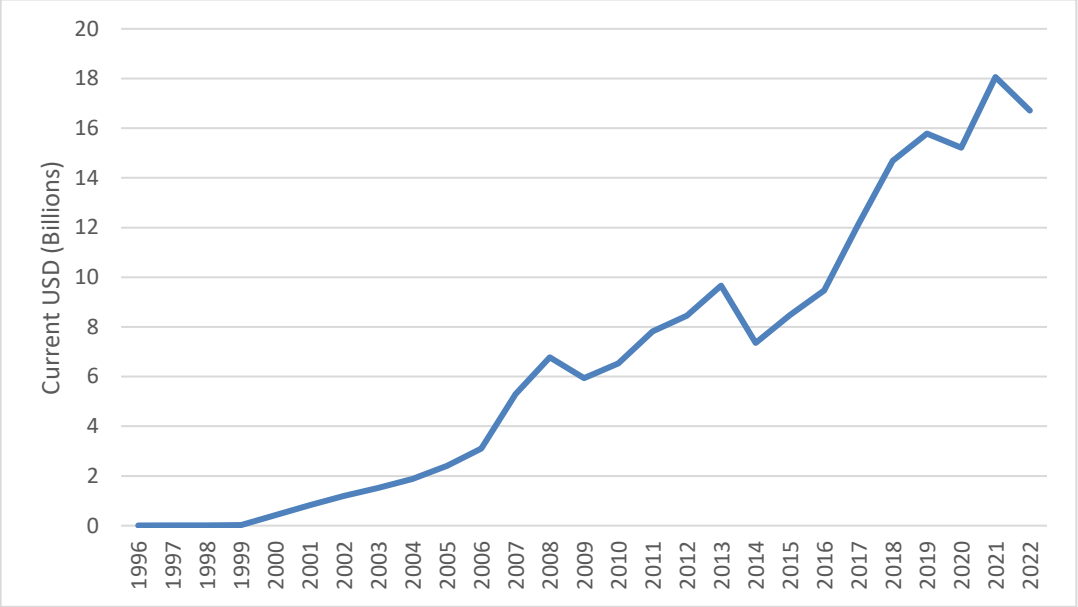
Figure 11: NET FDI Inward Stock, 2021



Source: UNCTAD

The Ukrainian population overseas represents a more significant source of external economic dependency. This topic is also the subject of fraught debate, with the Ukrainian government and many of its citizens wanting their compatriots to return home. The loss of human capital to external migration has, however, been a long-term problem for Ukraine. Remittances from these overseas workers provide a lifeline in this context, with these inward financial flows supporting investment and consumption (Figure 11).

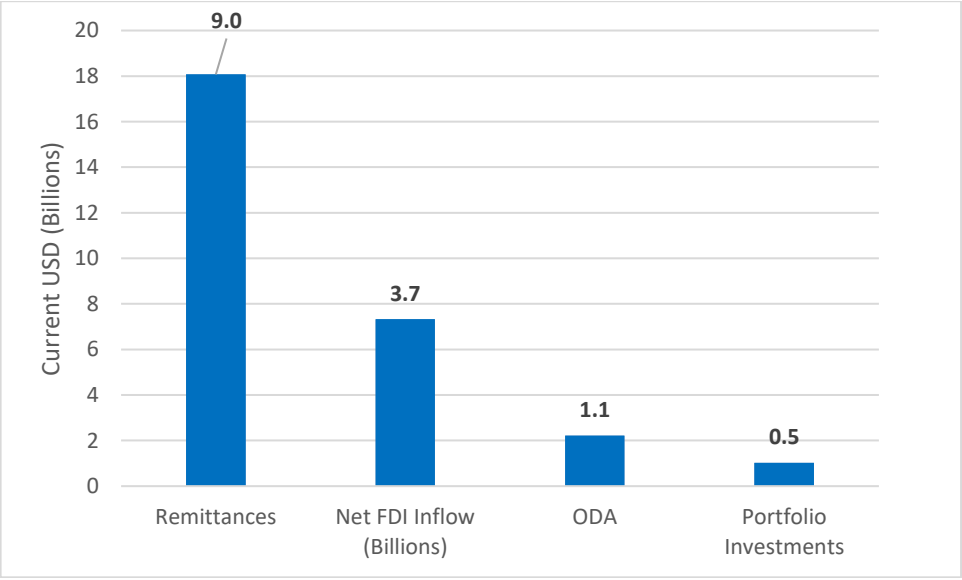
Figure 11: Remittance Inflows into Ukraine, 1996-2022



Source: World Bank Development Indicators Database

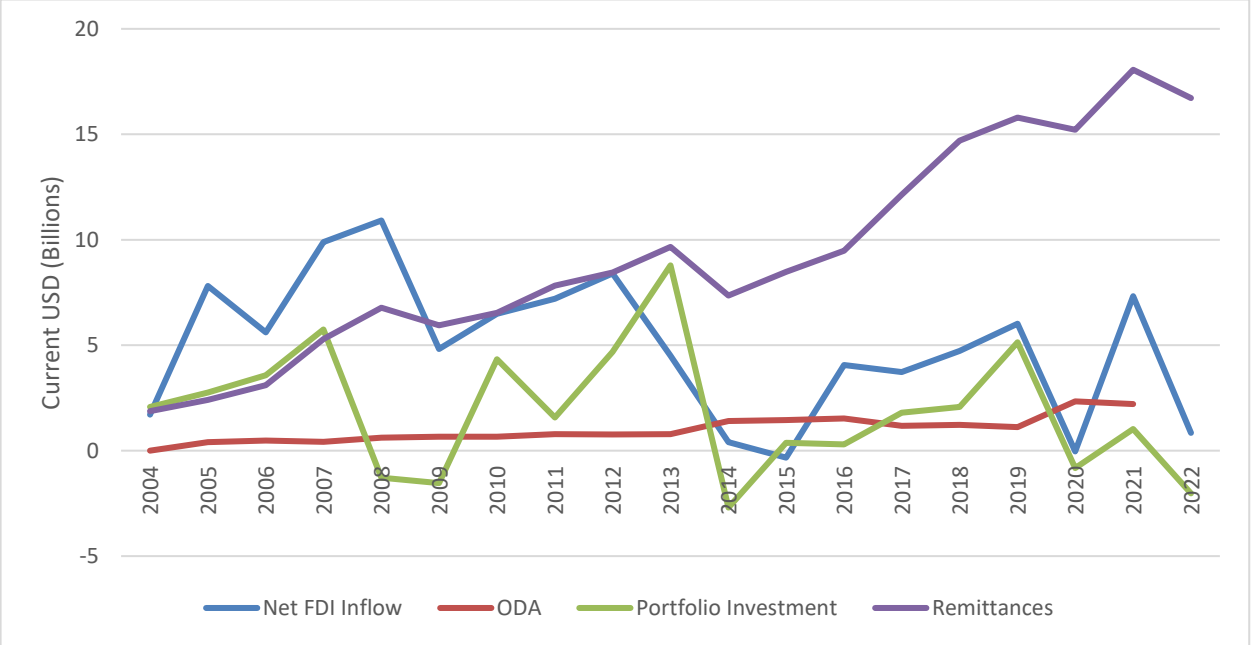
So important are these inflow to the Ukrainian economy that they dwarf other external funding sources. In 2021, remittance inflows were greater than the combined total of Overseas Development Assistance (ODA), FDI and portfolio investments (Figure 12). 2021 was also not unique with this pattern persisting since 2013 (Figure 13). Although they get little attention at major intergovernmental conferences like the Ukraine Recovery Conference (URC), remittances will help support the reconstruction process.

Figure 12: Core Inflow Indicators, Ukraine, 2021, and Share of GDP



Source: Net FDI inflows are from UNCTAD's database while other indicators are from the World Bank Development Indicators database.

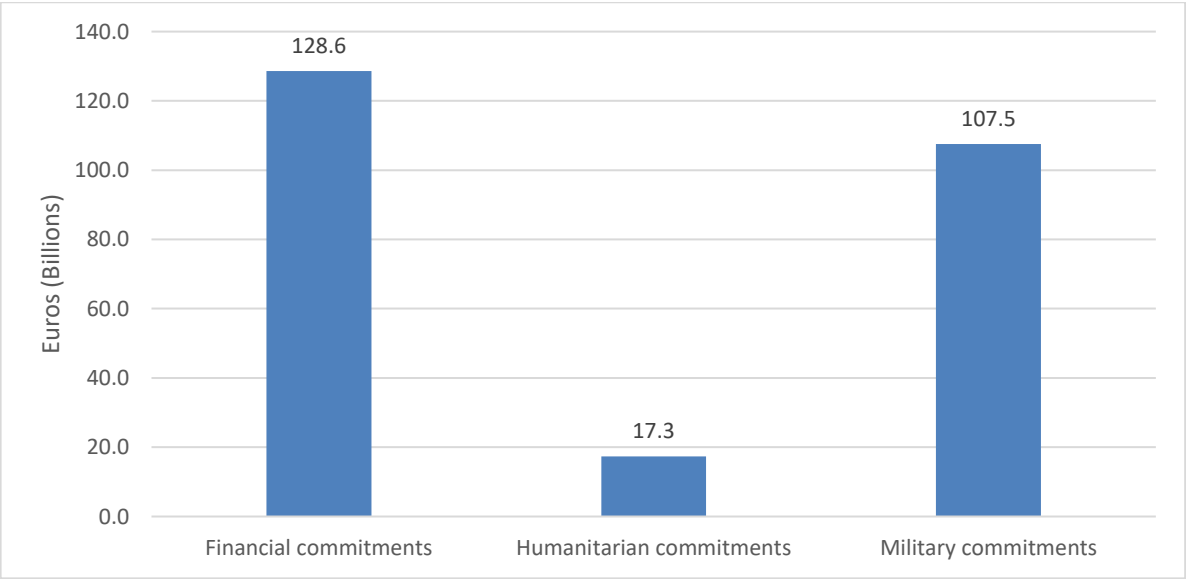
Figure 13: Core Inflow Indicators, Ukraine, 2004-2022



Source: Net FDI inflows are from UNCTAD's database while other indicators are from the World Bank Development Indicators database.

In recognition of Ukraine's acute balance of payments position and the security threat presented by the full-scale Russian invasion, Ukraine has received significant support from external donors since February 2022. The combined support for financial, military and humanitarian aid comes to around €253 billion (though caution is advised on the precision of this data). This massively exceeds Ukraine's gross domestic savings that, in an optimistic scenario, may return to circa. $28 billion per year in the period ahead.

Figure 14: Support for Ukraine, 2022 - 2024



Source: Christoph Trebesch, Arianna Antezza, Katelyn Bushnell, Pietro Bomprezzi, Yelmurat Dyussimbinov, Andre Frank, Pascal Frank, Lukas Franz, Ivan Kharitonov, Bharath Kumar, Ekaterina Rebinskaya, Christopher Schade, Stefan Schramm & Leon Weiser (2024). "The Ukraine Support Tracker: Which countries help Ukraine and how?" Kiel Working Paper, No. 2218, 1-75.

In short, Ukraine is heavily dependent on external sources for core current expenses. This means that either these sources have to continue to cover expenses that Ukraine

cannot replace any time soon, or Ukraine would have to reduce its spending levels drastically to fit its current means. With a lack of adequate domestic sources for the foreseeable future, Ukraine will remain dependent on additional foreign sources, such as loans, FDI, and grants, etc., to meet its immediate economic needs. There are no 'quick fixes' that could change this situation, especially given the costs of the Russian invasion.

Assessing Ukraine's ability to repay

A country's potential to repay its public debt depends critically on its amount of national income and the value of the assets it holds[14]. Ukraine's income performance was already poor prior to the 2022 invasion[15]. Here we will argue that given that the majority of Ukrainians survive on incomes close to subsistence, the debt burden is more severe than the debt per worker ratio might suggest when compared to higher income countries.

Moreover, there are a number of negative factors that should be taken into account:

- The debt burden will grow further before the war ends.
- Unfunded liabilities such as veteran payments and reconstruction costs will accumulate during the war. These are not accounted for as formal liabilities but are a factor when considering the state's capacity to make debt repayments in the future.
- The war creates a challenging environment for economic growth. The state is critical to supporting economic demand but has only limited fiscal capacity to do so.
- Public asset values are declining during the war. This makes it an inopportune time to engage in privatisation, but the state may feel under pressure to engage in sell offs.
- Significant return migration is highly unlikely while the war is on-going and uncertain thereafter.
- Critical human capital losses are likely very significant and poorly accounted for in conventional measures of 'loss and damage'. The sectoral implications of this are significant as the loss of skilled industrial and construction workers is likely to be more significant than the impact of the war on the labour market as a whole.

Ukraine was already suffering from a significant decline in its population and shrinking workforce prior to 2022, scoring among the top five nations globally for forecasted population decline by 2050.[16] From a peak of approximately 52 million in 1992, population decline brought the figure to an estimated 44 million by 2021. The World Bank estimated its 2022 population as 38 million.[17] The IMF puts its at 33.4 million.[18] The uncertainty in these estimates itself illustrates the scale of the challenges Ukraine faces.

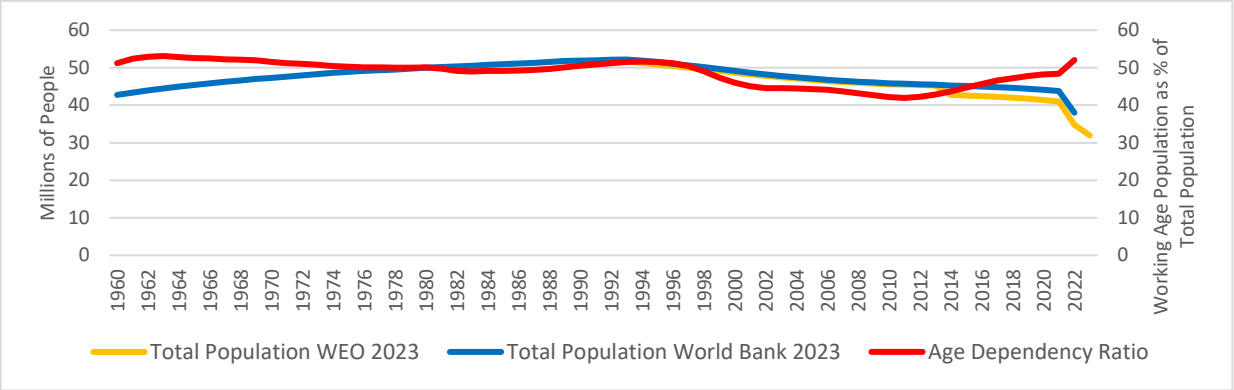
A disproportionate number of those who leave or stay abroad could be individuals of working age, which could further skew downward the proportion of such individuals in Ukraine's total population, sometimes known as the age dependency ratio (see Figure 15). As the working age population declines relative to "dependent" demographic

[14] Other criteria involved in creditworthiness can stress political dimensions, such as a country's stability and honouring debt repayments, but the fact remains that it has to have the funds to repay in the first place. A country may have the funds, then simply refuse to pay or honour the face value of its debts in full. These other dimensions, while included in credit rating agencies' toolkits, are beyond the scope of this paper.
[15] Standard & Poor's cited a weak economic outlook as part of the reason for downgrading Ukraine's credit rating, but noted it could be improved if the economic outlook improved. (S & P Global Ratings, 2023)
[16] United Nations, Department of Economic and Social Affairs, Population Division. (2019). World Population Prospects 2019: Highlights. Population Division. UN Department of Economic and Social Affairs. Retrieved from https://reliefweb.int/report/world/world-population-prospects-2019-highlights?gclid=CjwKCAjw3dCnBhBCEiwAVvLcu9NQ5zn1K9yqjOZoHa8mz4UE0mBAiVfUpW3azGFJj1Ln2OATvTjk2BoCzYwQAvD_BwE
[17] World Bank Data Hub https://data.worldbank.org/indicator/SP.POP.TOTL?locations=UA (accessed 15 May 2024).
[18] IMF Ukraine – Country Profile https://www.imf.org/en/Countries/UKR (accessed 15 May 2024).

categories such as children and the elderly, Ukrainian workers will have people have to produce even more just to maintain the status quo, let alone drive recovery and growth.

Achieving improvement in the standard of living in this context would require productivity growth at levels not yet observed in Ukraine. This will mean an even higher burden per worker and per capita to provide the tax revenues Ukraine will need to service its debts.

Figure 15: Critical Population Trends in Ukraine, 1960- 2023

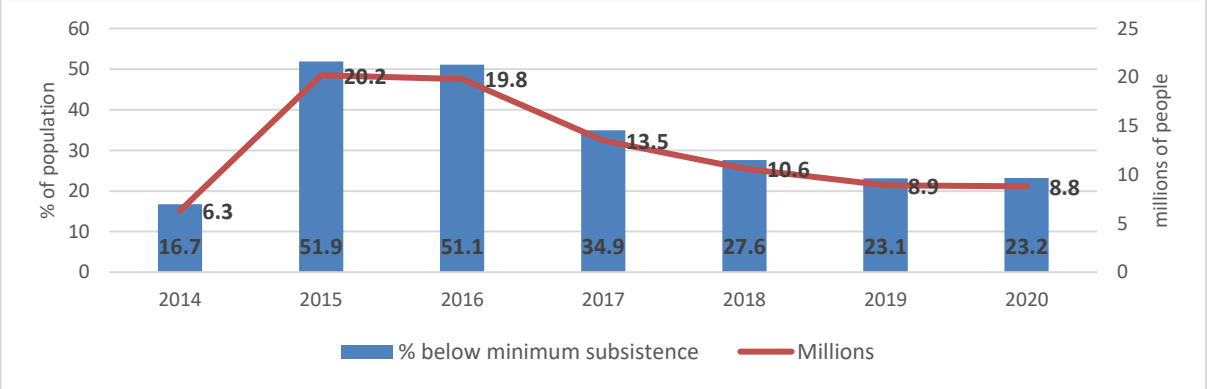


Source: Population Statistics are from the World Economic Outlook Database (April 2023) and World Bank Development Indicators, Age Dependency Ratio from World Bank Development Indicators

The low incomes of the majority of the working population present an acute challenge to Ukraine's debt sustainability and its related growth prospects. This can sometimes be understated in some statistical measures. Ukrainian Statistic Agency Labour Force Survey Data for example collects data from workplaces of ten or more formally employed workers, excluding large swathes of the population, especially in rural areas.[19]

Figure 16 below shows the percentage and number of Ukrainians living below the official subsistence level from 2014 to 2020, which was 3660.90 UAH in 2019 according to UNICEF. This amounts to about $141.67 USD in 2019 at an exchange rate then of 25.84 UAH per USD. This is approximately $4.72 USD per day per person. However, other data presents a much starker picture, especially following the full-scale Russian invasion.

Figure 16: Ukrainian Citizens With Incomes Below Subsistence



Source: Figure 7 (IOM, 2021), based on official figures from the State Statistics Services of Ukraine

An assessment of rural households carried out by the FAO in 2022 found that the vast majority were spending over two thirds of their monthly incomes just to meet basic food

[19] For a discussion of this, see Moody's Analytics Ukrainian Statistic Agency Labour Force Survey Data (Accessed 15th May 2024).

needs.[20] A 2032 Multi-Sector Needs Assessment (MSNA) undertaken by the World Food Programme identified a similar incomes crisis. On the basis of a nationwide sample of 13,449, the study found that 73% of households reported a level of income per capita below the Minimum Expenditure Basket (MEB).[21] This measure includes the goods and services considered essential for meeting minimum basic needs, including nutrition, shelter, essential clothing, hygiene products and some other essentials. The estimated value of the MEB for 2022 was 5865 UAH (181 USD) per person per month, or $6 USD per day. This demonstrates the scale of Ukraine's humanitarian needs and the acute cost of living crisis that the war has given rise to.

These figures underline how when assessing the country's ability to manage the debt burden, it is critical to move to the per capita and per worker level in a more systematic way. This should help us assess the degree to which Ukrainian citizens have room to take on additional burdens, through tax contributions, beyond meeting their own basic needs. In this context, then, they clearly demonstrate the severity of Ukraine's situation.

Moving from aggregate to per worker income generation

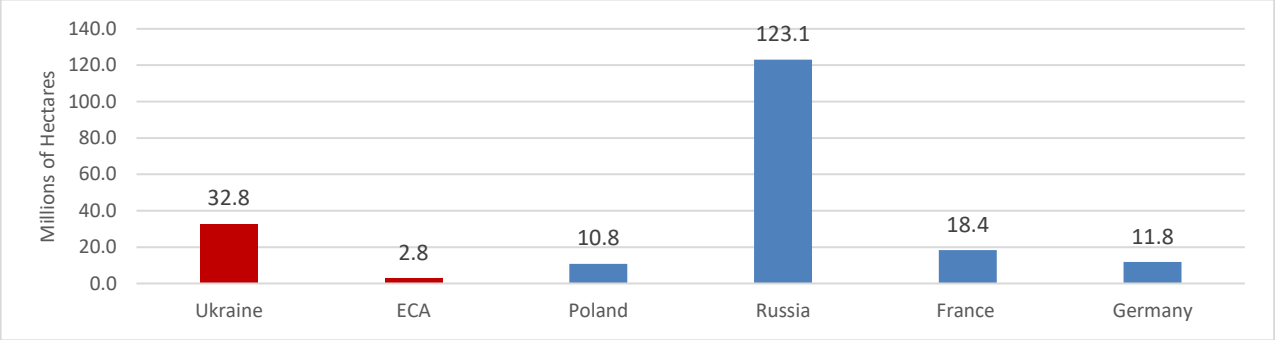
Ukraine should turn its attention to aggressively boosting the amount of income generated per worker it in order to mitigate the impact of debt overhang on a population that is already being squeezed severely. This has in fact been necessary and neglected for the past 30 years, but Russia's latest war puts the need into a much sharper relief. While Ukraine may be tempted to resort to austerity to achieve short term nominal improvements in the debt to GDP ratio, this would further compound the cost-of-living crisis, squeezing workers even further and undermine the basis for long term growth. Importantly, despite significant numbers of Ukraine's population living at or close to subsistence levels, Ukraine is not a "poor" country in the conventional economic sense.

It is relatively large with abundant amounts of land with rich, fertile, soil, access to markets, a reasonable level of infrastructure and a workforce that is typically rated as highly motivated with high levels of formal educational attainment.[22]

Large amounts of high-quality arable land is a vital economic asset for the country and well over 10 million people (before 2022) live in rural settings with access to small land plots, producing some 32% of agricultural output. Improving small scale household labour productivity will be a key driver for improving the ability to Ukrainians to not only carry the debt burden, potentially overcoming it, but also for improved levels of prosperity. This is critical for debt sustainability since it indicates that Ukraine has an underlying economic potential, despite previous poor performance and an otherwise bleak outlook, when it comes to the income the country actually generates and is likely to generate from the assets it has.

[20] Food and Agricultural Organization of the United Nations, 2022. Ukraine: Impact of the war on agriculture and rural livelihoods in Ukraine – Findings of a nation-wide rural household survey. Rome. Retrieved from https://doi.org/10.4060/cc3311en (Accessed 15 May 2024).
[21] World Food Programme, 2023. Ukraine Needs Assessment: Food Security and Essential Needs. https://fscluster.org/sites/default/files/documents/wfp-ukraine_needs_assessment_food_security_and_essential_needs_0.pdf (Accessed 15 May 2024).
[22] Del Carpio, X., Kupetz, O., Muller, N., & Olefir, A., 2017. Skills for a Modern Ukraine. World Bank Group. Retrieved from https://openknowledge.worldbank.org/entities/publication/687c3d77-1551-53d6-a34c-541173b1b6d9 (Accessed 15 May 2024).

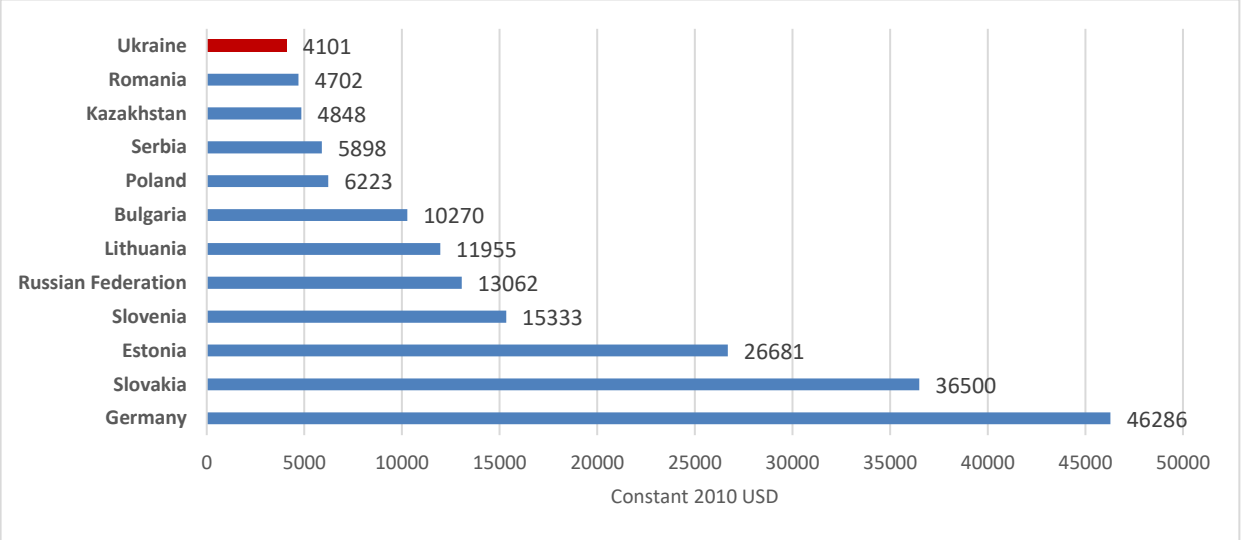
Figure 17: Arable Land, Selected Countries, 2016



Source: World Bank Development Indicators

Figure 17 demonstrates Ukraine's abundance of arable land. In Ukraine's Eastern Conflict Area (ECA) alone, there is about 2.8 million hectares which was under Government of Ukraine control prior to the full-scale invasion of 2022.

Figure 19: 10-year Average Value Added per worker in Agriculture Forestry and Fishing, 2010-19, Select Countries



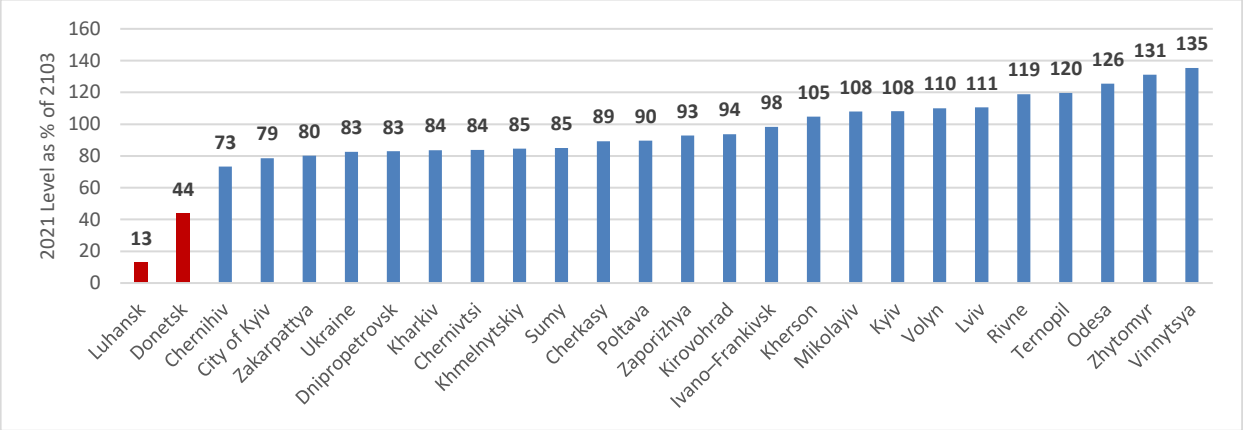
Source: World Bank Development Indicator Database

Labour productivity in agriculture, however, remains low by international standards (see Figure 19). In other words, Ukraine's agriculture has significant further growth potential (within of course ecological limits). This overall average illustrates the unevenness of Ukraine's agricultural production, reflecting how its famously large, productive industrial farms co-exist with smallholders farming the land less intensively.

Depressed productivity is widespread beyond agriculture

A similar overall trend can be observed in Ukraine's industrial production. The first Russian invasion of Ukraine in 2014 produced a long-term negative impact. By 2021, prior to the full-scale invasion, many Ukrainian regions had still not recovered to the 2013 level of industrial production (see figure 20). It is very likely that the full-scale invasion of 2022 has made the situation much worse with a wider geographical impact.

Figure 20: Index of Industrial Production in Ukraine in 2021 relative to 2013 by region



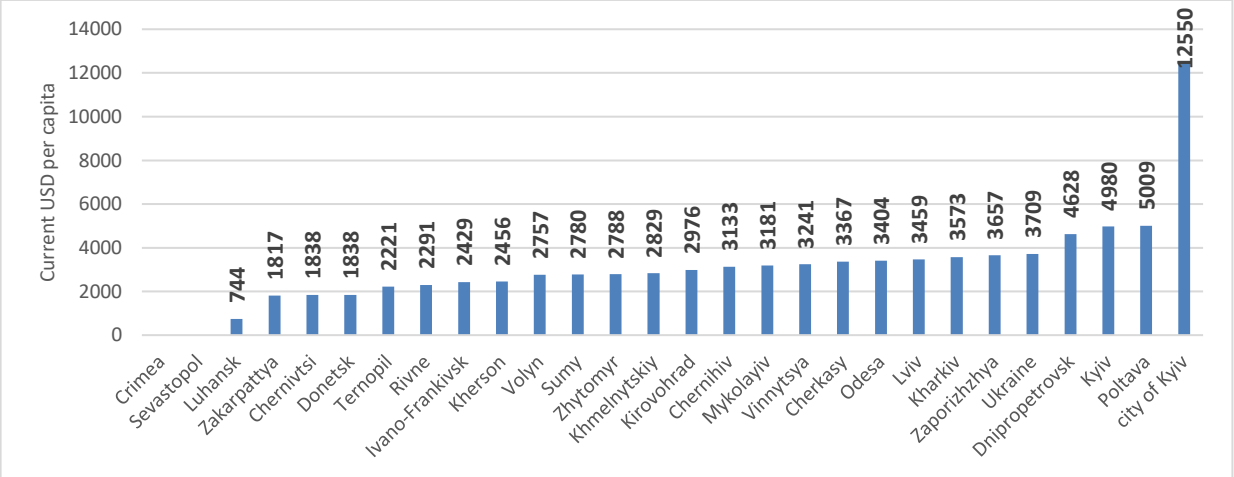
Source: Calculations based on Indexes provided in Regional Statistical Database of Ukrstat

Lower levels of industrial production means that less income is being produced and these assets, due to the impact of the conflict, are worth less today as a result. As income and the value of productive assets fall, the ability to cover debt worsens. Conflict affected societies can be particularly exposed to negative 'spiral effects'. With falls in income, production and asset values resulting in greater borrowing, driving a 'debt trap' logic.

This draws attention to the need to improve the capacity of the assets a country has (land, labour and capital) to generate income, as the key factor in debt sustainability.

Importantly, aggregated national data can sometimes – like incomes data – give a misleading picture of the geographical unevenness between regions. As Figure 21 demonstrates, Ukraine has profound regional inequalities that shape its growth potential. Seen in terms of the wider argument presented here, the implication is that unlocking Ukraine's greater productivity potential should aim to examine productivity growth potential on a local and regional basis to make the best use of the assets available. The core concept here is that it makes sense to identify potential growth, then prioritize where support is most needed to generate optimal results. A one-size-fits all strategy would, in short, be problematic and likely favour the relatively wealthy regions.

Figure 21: Gross Regional Product Per Capita in 2020 in Ukraine by region



Source: Regional Statistical Database from Ukrstat with UAH converted to USD based on UNCTAD's annua average exchange rates for 2020.

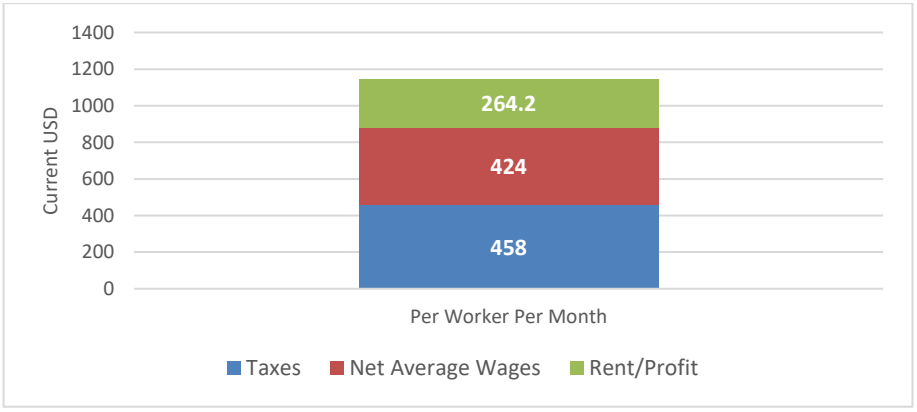
Linking the debt burden with productivity growth

Growth in value added per worker (total value added from land, labour and capital resources) is vital to mitigate Ukraine's debt burden and place the country's recovery and reconstruction on a sustainable footing. In the absence of improving value added through investments that generate labour productivity growth, Ukraine will likely face a negative spiral in which the incomes of the working population are severely squeezed.

Figure 22 attempts to shed some light on this tragic, yet likely, outcome. This figure shows the breakdown of the amount of value produced per worker in Ukraine on average per month, using estimates from 2021. Ukraine's $200 billion USD GDP at the time with an estimated population of 41 million including 14.5 million actively employed workers, would imply a total value produced per worker, per month of $1146 USD (and $13 752 USD per year). Using this in combination with average wage data estimate that on average $458 of the value produced monthly was collected as taxes, $424 was taken home, leaving $264 for use in production, profit and rent. This illustrates how in the absence of improving Ukraine's overall productive capacity (value added and labour productivity growth) and in a context of rising debt obligations (public and private), there is a clear risk that workers incomes will come under downwards pressure and incentivise their external migration to the EU.

Caution should be advised about how much is read into this, given it not only excludes the informally employed workforce but, if taken too literally, would compound the widely recognised problems of GDP (in particular, its premise that the monetary values of final goods and services produced and consumed in a country across a period of time is the marker of the total output of an economy, without regard to environmental costs, unpaid labour or the role of all assets, such as infrastructure and human capital[23]). It is intended, however, as a broad indicator of the need to develop value added per worker.

Figure 22: Distribution of Value Added Per Worker Per Month in Ukraine, 2021



Source: Current USD GDP for 2021 is derived from Statista/IMF World Economic Outlook was divided by estimates of employment levels calculated from World Bank Development Indicators, then divided into taxes based on tax revenues as a share of GDP, Gross Monthly Wages from Ukrstat for Ukraine converted into USD by UNCTAD's annual average exchange rate (less taxes to generate a net estimate) with remainder for rent and profits (as a residual).

Conclusions and recommendations

In part to counteract the bleak outlook presented in the foregoing, the following list of recommendations are added in response to what can be done to improve this situation.

[23] On this see, Coyle, D. 2017. Rethinking GDP. https://www.imf.org/external/pubs/ft/fandd/2017/03/pdf/coyle.pdf (Accessed 4 June 2024).

As markets face disruption and 'freezing' in the situation of all-out-war, the Ukrainian state has a vital role to play in supporting economic demand and the wellbeing of the population alongside targeted resources to meet the challenge of the invasion. While this role of the state in economic coordination intensifies pressure on fiscal resources, it also creates a window of opportunity to expand and develop its institutional capacity.

To successfully resist the full-scale invasion, the Ukrainian state will have to (a) absorb and utilise efficiently an influx of funds through domestic taxation and external financial flows and (b) strategically plan and rapidly deliver small to large scale projects.

While this capacity will be focused on security needs in the short to medium term, it can potentially be recalibrated and retooled in the future as the situation changes and Ukraine is able to invest in developmental goals.

Recommendations for Ukraine's donors and allies:

- Recognising Ukraine's serious financing challenges, maintain and as far possible increase long-term economic support with a preference for aid not loans. In this context, recognise that private sector investment is not a substitute for the public sector which is vital to creating the conditions (infrastructure, human capital, etc.,) to incentive private sector investment.

- Indicate now a willingness publicly to restructure Ukraine's public debt liabilities as part of a future post-war reconstruction and development plan. Link this to a policy and investment focus on improving Ukraine's productive capacity and generating sustainable growth.

For the Government of Ukraine, we would make the following proposals:

- Move beyond debt to GDP ratios to focus on debt per capita and debt per economically active (employed) person with short to medium term forecasts. Framing the debt burden in terms of per capita and per employed person redirects attention to focus on improved productivity levels (value added per economically active worker produced) and total factor productivity (from land, labour and capital). A strategy focused on this can render debt sustainable.

- Widen the discussion on Ukraine's debt sustainability to include other debts and liabilities at the macro and micro levels. This can help monitor the risk that government debt is not simply reduced through taxation levels and public spending cuts that necessitate greater private debt accumulation to cover the basic life needs of Ukrainian citizens.

- Broaden the discussion on human capital across age levels, forms of educational programmes, and "relevant" skills in order to realise Ukraine's growth potential. Outline a strategy that responds to the concern that Ukraine's formally high levels of educational attainment are not currently well matched to the requirements and potential of the economy.

- Move beyond quantitative approaches of job creation and unemployment statistics to incorporate qualitative measures by developing a "decent work" agenda. As part of a strategy to retain workers align with the ILO "Decent Work" agenda.

- Diversify key performance indicators (KPI) to include value added per worker and per hectare to assist the development of a strategy for productivity growth.

- Develop a comprehensive strategy for productivity growth that is based on an assessment of sectoral needs and opportunities and a recognition of chronic and long-term economic underperformance, requiring a new framework and approach.

The central argument of this report is that the total debt burden of Ukraine ultimately falls on those who work and produce income in the country. The paper seeks to put this issue into the spotlight with a view to recalibrating how solutions are conceptualised. It does not provide a step-by-step set of actions for Ukraine to pursue a 'value added' and incomes-focused economic strategy but can hopefully contribute to a wider discussion.

About PeaceRep

PeaceRep is a research consortium based at The University of Edinburgh. Our research is re-thinking peace and transition processes in the light of changing conflict dynamics, changing demands of inclusion, and changes in patterns of global intervention in conflict and peace/mediation/transition management processes.

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