

## *Original Paper*

# Reconstructing Ukraine: How to Design a Marshall Plan

## The Future of Ukraine

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Received: October 19, 2022      Accepted: November 1, 2022      Online Published: November 16, 2022  
doi:10.22158/rem.v7n4p26      URL: <http://dx.doi.org/10.22158/rem.v7n4p26>

### ***Abstract***

*This policy paper proposes using the US Marshall Plan launched in 1947 as an example of how to support Ukraine in the aftermath of a war that has demolished infrastructure and normal living conditions. It makes use of historical findings, combining them with suggestions for the 21<sup>st</sup> century. The assistance has to be significant, and its direction and use should build on the needs and wants of Ukraine, while drawing on international experience with challenges such as climate change, pandemics, and reshoring. All of these problems call for 'rebuilding better'. A possible demographic catastrophe due to rapid depopulation must also be addressed. Who provides the funding and who supervises it, will be important, not just for Ukraine, who wants to become EU-member.*

### ***Keywords***

*Ukraine restructuring, Marshall Plan 1947, rebuilding better, EU accession*

## **1. Outline of the Paper**

Russia's invasion of Ukraine has not only changed social and economic life within the country, but within Europe as well. We envisage what could follow if peace is negotiated or the war becomes a frozen conflict, with periods of peace amid covert plans to take revenge or to shift power.

As the conflict has destroyed a substantial part of public and private capital stock, the main point of our analysis is that Ukraine needs a Marshall Plan similar to that implemented after WWII. We discuss its scope, intentions, and financial aspects. We recall how the US Marshall Plan was organized, carefully combining change and stability, using decentralized efforts, with the US as the main donor supervising softly. Its success for both donors and recipients can serve to generate scenarios for Ukraine. The US

Marshall Plan for Europe as of 1947 was launched at a time when peace was not yet guaranteed, Europe was divided, and both US and Soviet troops were stationed in the region.

A second point is to discuss how a new peace project could be financed, so as to benefit both the donors and recipients, and which organizations should be involved. We address what should not be included, such as penalties, restoration payment requests or a confiscation of Russian wealth. We take into account that many non-European countries, though critical of the Russian invasion, have their own financial constraints due to domestic problems (poverty, lack of money for vital infrastructure or schooling) or are engaged in open or hidden conflicts with other countries.

Therefore, the third point is that a strong advance commitment within Europe is necessary, recalling the positive long-term effects of the Marshall Plan following WWII. It is to be expected that support for Ukraine by EU members or the US may evaporate over time or that other problems may become more important. Populism and a hidden preference for authoritarian leaders is visible in many countries.

The next section describes the need and scope of assistance as we envisage it during this stage of the war and recalls the historical implementation of the Marshall Plan after WWII. Section 3 describes the pre-war status of Ukraine and includes preliminary data for 2022. Section 4 discusses the possible contribution of refugees and their eventual return, with the aim of limiting the demographic catastrophe of depopulation. How a new Marshall Plan could look is outlined in section 5, and in the subsequent section we discuss who could fund it and which type of supervision would be advisable. Section 7 summarizes.

## **2. The Need for and Scope of Assistance**

The war between Russia and Ukraine is not a war of equals. Russia is larger, with a better staffed army and much broader arsenal of weaponry, including the nuclear option. It has thus proved easy for Russia to occupy Crimea and several provinces in Ukraine.

Russia has been providing an unequal game against Ukraine since 1992. Primarily it widely used quasi-political methods combined with intelligence and propaganda methods against Ukrainian sovereignty and territorial integrity. It couldn't allow Ukraine to have a strong military force or to be ready on immediate reaction on military aggression and did everything possible to exclude Ukraine from the European or Euro-Atlantic integration. Russia intensively used economic and political pressure on Ukraine during years, prevented Ukraine to be much stronger in economic, social and political spheres. Western countries—specifically, the US and EU countries—have provided assistance to Ukraine since Russia launched its invasion in February 2022 (Antezza et al., 2022), mainly by sending weapons, but also by training the Ukrainian military in how to use them. However, the personal cost, material destruction, and loss of job opportunities are great, and domestic financial funding for repairs or investments in the future via the domestic government is impossible. Help for restructuring and rebuilding is urgently and quickly needed. However, it also has to define Ukraine's vision of its future as an independent country.

The US Marshall Plan, as announced in 1947, has several characteristics that could be applied in the case of Ukraine; similarly, using it as a model for a new form of development assistance for Africa has been discussed (Aiginger, 2018). In 1947, the assistance was determined by the sponsor (the US and its taxpayers). The support provided was large, and it guaranteed that the sponsor received approximately what it wanted (peace and a region less open to communism). The specific rules were initially mainly decided by the recipients. The money the countries got did not have to be repaid but could be used to restructure the recipient economies and support their citizens in a revolving manner.

The US initially supported war-ridden Europe after WWII by sending food, and then by sending goods needed for restructuring. Subsequently, the US devised the so-called Marshall Plan (European Recovery Program), in which 15 European countries could apply for funds and money needed on the international market to pay for goods, basic resources and food. The cost for the US was estimated at 12 bn \$ (between 1948 and 1952), and the benefits for Europe amounted to about 10% of its GDP. European countries did not have to repay anything; money flowing back from credits was put into a nationally steered fund (ERP Funds) and used for new projects.

The intentions of the Marshall Plan were manifold, ranging from manifesting peace to preventing further inroads of communism in Europe. It involved only distant supervision by the US. The main instruments of control were the national authorities and the OEEC in Paris. Final repayments are today being used for new credits, for example by the AWS in Austria. This has led to long-lasting, second-stage benefits.

### 3. The Pre-war Status of Ukraine and Estimates for 2022

Before the war, Ukraine had a population of 50 million people, which is half the population of Germany, less than a third that of Russia, and one tenth of the combined population of the EU27. Its GDP per capita amounted to 13,000 USD in PPP, which was half of Russia's, but it had been growing faster than that of the EU, the US and Russia (Note 1). The share of manufacturing was rather low (10-12%, which was lower than in Serbia or Bulgaria), while that of agriculture and service was higher. Total GDP was 150 bn USD in 2020 (Note 2).

**Table 1. The Pre-war Sectoral Structure of the Economy**

	Nominal value added						Real value added					
	Agriculture		Manufacturing		Services		Agriculture		Manufacturing		Services	
	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020
	As percent of GDP											
EU27	2.2	1.7	17.5	14.6	62.1	65.6	1.8	1.6	15.1	15.2	62.5	65.1
France	2.1	1.6	14.5	9.4	66.3	71.2	1.7	1.6	11.2	10.1	67.2	70.9
Germany	1.0	0.7	20.5	18.2	61.5	63.3	0.8	0.7	19.0	19.2	61.1	62.6
Bulgaria	11.0	3.5	12.0	12.8	54.0	61.3	9.2	4.3	11.9	12.3	53.1	60.9
Romania	10.9	4.0	19.8	16.3	49.2	59.8	6.4	3.8	18.7	18.6	50.3	55.2
Serbia	17.1	6.3	27.1	13.3	40.3	51.9	8.9	6.5	18.5	14.2	47.5	50.6
Russia	5.8	4.0	15.2	13.4	49.7	56.1	4.9	4.0	13.3	13.5	50.1	56.1
Ukraine	14.0	9.3	17.4	10.1	39.7	55.8	9.8	11.3	16.3	11.5	39.2	53.4
USA	1.0	0.8	15.1	10.9	76.6	81.5	0.9	1.1	12.7	11.7	78.1	80.6

China	14.7	7.7	31.9	26.5	39.8	54.5	18.4	7.5	26.0	27.6	46.3	53.1
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Source: AMECO, World Bank.

**Table 2. GDP and CO<sub>2</sub> Emissions Per Capita**

	Nominal GDP per capita		Real GDP per capita		CO <sub>2</sub> emissions per capita	
	2000	2020	2000	2020	2000	2020
	PPP in USD				Tons per capita	
EU27	23,984	44,536	35,034	42,224	7.63	5.34
France	28,594	46,267	41,321	43,865	5.99	3.84
Germany	29,444	54,993	43,572	52,138	9.97	7.10
Bulgaria	7,063	23,739	10,564	22,507	5.17	4.77
Romania	8,287	30,571	12,183	28,983	3.84	3.36
Serbia	6,309	19,190	8,625	18,194	5.29	6.56
Russia	10,512	28,181	14,530	26,718	10.06	10.77
Ukraine	4,148	13,203	7,296	12,517	6.00	3.66
USA	36,313	63,078	50,145	59,803	20.29	12.90
China	2,886	17,115	3,431	16,226	2.45	7.15

Source: IMF, IEA.

**Table 3. Population, Fertility, and Life Expectancy**

	Population		Fertility rate		Life expectancy	
	2000	2020	2000	2020	2000	2020
	mn persons		Births per woman		Years	
EU27	428.9	447.3	1.44	1.50	77.1	80.5
France	60.8	67.5	1.89	1.83	79.1	82.2
Germany	82.2	83.2	1.38	1.53	77.9	80.9
Bulgaria	8.2	6.9	1.26	1.56	71.7	73.6
Romania	22.4	19.3	1.31	1.60	71.2	74.4
Serbia	7.5	6.9	1.48	1.48	71.6	74.2
Russia	146.3	146.2	1.20	1.51	65.5	71.3
Ukraine	48.7	41.4	1.12	1.22	67.7	71.2
USA	283.1	330.1	2.06	1.64	76.6	77.3
China	1,267.4	1,412.1	1.60	1.70	71.4	77.1

Source: AMECO, IMF, World Bank.

**Table 4. Distribution of Income, Educational Outlays**

	GINI index		Income share held by				Total expenditure on educational institutions	
	2010	2019	highest 10%		lowest 10%		2005	2019
			2010	2019	2010	2019		
As percent							As percent of GDP	
EU27	.	.	.	.	.	.	5.1	4.6 <sup>1)</sup>
France	33.7	32.4 <sup>1)</sup>	27.1	26.7 <sup>1)</sup>	3.0	3.2 <sup>1)</sup>	5.2	5.2
Germany	30.3	31.5 <sup>1)</sup>	24.1	25.1 <sup>1)</sup>	3.4	3.1 <sup>1)</sup>	4.3	4.3
Bulgaria	35.7	40.3	26.9	31.4	2.1	1.9	4.1	4.1
Romania	35.5	34.8	25.0	24.5	1.9	1.7	3.5	3.4 <sup>1)</sup>
Serbia	39.9 <sup>2)</sup>	34.5	28.7 <sup>2)</sup>	26.0	1.3 <sup>2)</sup>	2.1	4.2	3.6
Russia	39.5	37.7	30.6	30.2	2.5	2.9	3.8	4.7 <sup>1)</sup>
Ukraine	24.8	26.6	21.0	22.3	4.4	4.1	5.8	5.4
USA	40.0	41.5	29.3	30.8	1.8	1.8	6.2	6.0

China	43.7	38.2	32.6	29.5	2.0	2.8	2.4	3.5
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*Note.* The Gini index measures the extent to which the distribution of income or consumption among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

Source: World Bank, OECD. <sup>1)</sup> 2018. <sup>2)</sup> 2012.

As far as history is concerned, Ukraine is a democracy, not an authoritarian state. This is one reason why Russia (Putin) considers it a bad example: a country that chooses its leaders and divides power, having legislative and judicial arms, as well as an independent press. It has chosen to be European, despite many Russian interventions. The quality of education is good, though it leans towards Russia in its use of the Russian language. Outlays for education at 5.4% of GDP were topped only by the US (and some smaller European countries).

Russia never wanted to let Ukraine out of its sphere of influence, more than other regions in the neighborhood (in the so-called “Russian” world). The Ukraine had answered this very softly by agreements of partnership with the EU (or even the NATO bloc). Russia reacted by interfering more. The Ukraine hesitated by choosing between a pro-Russian (Viktor Yanukovich) and a pro-European (Viktor Yushchenko) president. Russia intensified the gathering of its troops rather without Western attention and silently built-up reserves for a conflict. This enabled the annexation of the Crimea and of some other regions in the Ukraine in 2014.

According to a World Bank estimate (October 2022), the Ukrainian economy has shrunk by 35% in 2022; industrial capacities have been destroyed and there has been much damage in agricultural regions. There has also been a loss of people—14 million people have left their homes, half of them fleeing to other domestic locations and half leaving Ukraine (UNHCR, 2022).

#### **4. Refugees and Their Potential Return: Depopulation Risk and Skills**

Refugees from Ukraine are treated differently in Europe, but they are also different from those who arrived in 2015 (many of them Syrians) in that they are generally better trained and educated. They are often women coming alone with children, and they have been looking for and getting work rather quickly. Half of them tentatively plan to return, half not. If they remain in the European Union, this is positive for the respective countries of arrival, as they can reduce the ageing problem, but this could exacerbate depopulation in Ukraine. It is important that they see their role as a bridge between the country in which they arrive and the one they have left.

Ukraine’s population had been slowly but steadily decreasing before the war ([www.macrotrends.net/countries/UKR/](http://www.macrotrends.net/countries/UKR/)). It dropped then from 49 mn in 2000 to about 39 mn in 2022 (Note 3). In rebuilding Ukraine after war, refugees should play an important role and act as a bridge to Ukraine in many respects. It is important that people who have left Ukraine during their education continue or upgrade their education and training abroad (Note 4) (Bock-Schappelwein & Huber, 2022).

The gender-age pyramid of Ukraine in 2022 shows a significantly smaller number of the population under the age of 21 for both women and men and an increase in the number of the older age groups from 30 to 40 and 50 to 60 years old, with a slight difference in the gender composition. In the age group from 40 to 50 years, there is a noticeable decrease in the population. In particular, the gender-age structure looks like this: at the age of 1-year, boys outweigh girls by far (151,073 vs. 141,523); at the age of 65 there are much more women (316,622 vs. 213,502). In the largest middle age group, they are about equal (369.299 men vs. 366,596 women).

The demographic data clearly show the trend of population aging, a catastrophic reduction in the birth rate, and an increase in the burden on the younger generation to support the older generation. With the projected war-related poverty rate, the birth rate will continue to be low and to impact on Ukraine's population size and its age structure dramatically. If materialized, in the continuation of the protracted war in Ukraine, 18 years of socio-economic achievements may be lost (see the Gender-age pyramid of Ukraine in 2022).

**Table 5. Total Rates of Natural Population Movement in Ukraine in 2021 (Urban and Rural Areas)**

	Number of live births	Number of deaths	Natural increase, decrease (–)	Number of marriages	Number of the dissolved marriages
	Per 1 000 persons present population				
Ukraine <sup>1)</sup>	7.3	18.5	-11.2	5.8	3.2

Source: State Statistical Service of Ukraine. <sup>1)</sup> Relative indicators are calculated excluding the relevant data for the Donetsk and Luhansk regions.

Table 5 shows the natural decrease of the Ukraine's population in 2021, which is equal to -11.2 person per 1,000 persons as average for urban and rural areas in 2021. The current year must be more dramatic because of the negative combination of determinants during the war.

With the population of Ukraine currently continuing to decrease, the country faces all the elements that could cause a demographic catastrophe: additional deaths due to war, massive internal displacement, increased emigration (refugees), lower birth rates, and likely loss of territory.

A study, which was financed by the Council of the EU (IOM, 2022), concluded that the population of Ukraine may decrease by 24%-33% (Guzman, 2022), depending on the duration of the war. The effect will be especially noticeable for children and the population at a "productive age". Education has to be continued or even upgraded during emigration. The study of the Council note that these estimates do not take into account one additional factor: increased mortality due to the long-term impact of the health care crisis caused by injuries, infectious diseases, and other injuries. This situation can result in a demographic tragedy for the combination of these reasons.

The number of children per women was 1.3 (2.1 would be necessary to keep the population constant; the figure for Ukraine is less than in other ageing European countries). Labor supply is decreasing less, as

people work longer (but maybe looking for a shorter working time per week, if they are having children. However, ageing increases pension costs, along with those for care and health.

Four million refugees have left the country and entered national protection schemes, and of the 13 million who have left Ukraine, about 6 million are expected to return. One third of the refugees have been internally displaced (Note 5). Deportations from Crimea and districts claimed by Russia have also occurred, but this is difficult to quantify.

We conclude from these findings that the return of Ukrainian expatriates would be important to limit the demographic catastrophe. A substitute could come in the form of sending remittances. Most importantly, families torn apart by the war should be reunited, so that they can increase life satisfaction including to contribute eventually to the population.

### **5. What Should Be Funded? Recovery Plus Reforms**

After a war, funding is needed in every area, ranging from material reconstruction to the renovation of houses and rebuilding of infrastructure. Roads, railways and bridges must be rebuilt, and even tourist attractions have to be made accessible again. According to the World Bank (Banerji, 2022), poverty has increased by a factor of ten, sending 25% of Ukraine's inhabitants into a state of poverty, compared to 2% before the war. The new attacks on Ukraine's infrastructure in October 2022 could further increase poverty.

Ukraine must define the point at which a new Marshall Plan should start. Personal engagement, local politicians and external assistance will have to shape the priorities. An overriding idea should be to rebuild better. Ukraine has several advantages—for example, CO<sub>2</sub> emissions per capita are low relative to its direct neighbors. GDP per capita or life expectancy are also low relative to the EU average but had been on the rise before the war. Rebuilding should place a priority on new challenges, such as climate change, increasing the number of people, improving their education, and optimizing transport facilities. Energy should be used more efficiently, houses should be better insulated, and renewable energy should be used. Transport networks should be more stable and less susceptible to attack, should a conflict arise locally. New jobs should be made available for those who have been injured, and families could temporarily share cars, houses or gardens. Preschools (kindergartens), schools, and technical and vocational universities should be rebuilt, with part-time blocks available. Learning English and other languages should be given higher priority.

Respecting European goals is essential, if Ukraine wants to become an EU member within the next decade. Learning from neighbors is important and could reduce the costs of rebuilding. If labor supply is short, labor from neighbors can be attracted. Ukraine should not be insular, but part of a wider neighborhood, hopefully offering a good example for other war-ridden countries near and far. A board of representatives in the donor country should make proposals, together with expatriates from Ukraine.

Ideas for reconstruction have already been developed by the National Recovery Plan of July 2022 (Note 6). It acknowledges that Ukraine was lagging its Central European peers in terms of economic

performance before the war, and that there are regional differences requiring localized partners and support from specific international partners. The guiding principles of a recovery plan should be to start now and then ramp up over time, Growing GDP and the equitable distribution of wealth should be the second guideline (equity in Ukraine is higher than in most neighboring countries).

Ukraine's integration into the EU and better inclusion in the bloc's supply chains, including the "green" ones, should follow. Building back better would be the fourth guiding principle, in accordance with the Green Transition and Digital Transformation. Enabling private investment and entrepreneurship, including SMEs, would be a fifth pillar according to this Plan.

## **6. Who Can Pay, Who Should Supervise/Monitor**

The funding of a Marshall Plan for Ukraine will require several sources. The US will not pay a significant amount, as it has been supplying weapons and secret service assistance. Firms may be invited to invest, if this improves or shortens international supply chains disrupted by the sanctions against Russia. The EU must be a main donor, it can use money earmarked for accession countries. It can also use its common institutions to handle long-term joint debt on the international market, though members usually opposed to joint credits will have to approve this. European countries that did not supply weapons for the war could provide a larger share of financing. The World Bank has to support and to an extent guide the assistance (Note 7). Ukraine can also welcome private sponsors (albeit not from Russia or China).

To achieve the amount invested in the Marshall Plan of 1947 (10% of GDP of the recipient) would mean support in the dimension of 15 bn € or USD per year. The current resilience facility, which covers about 2 bn USD annually, is much smaller. Whether and what Ukraine has to repay remains to be decided; a revolving fund would be helpful.

Bundling the payments in a Marshall Plan will have dual benefits for donor and recipient. The recipient should be Ukraine, but when the war ends, it's conceivable that its neighborhood, including Armenia, Georgia and possibly even Russia, could receive support. Ukraine's neighborhood should become more attractive, and its resources should be used, as this will limit future conflicts and depopulation. Donors should not dictate use of money given but monitor it softly like the OEEC did after WWII. Help should be given in a revolving form and for better rebuilding.

## **7. Summary**

It is difficult, but nevertheless necessary, to draw on past post-war experiences at a point in time when the war is still under way, with its extent and impact not exactly known. Experience can tell us what led to long-run peace and economic recovery in the aftermath of war, as well as what did not, especially when we compare experiences after the two World Wars in the 20th century. One historical experience was that assistance from a rich country, in this case the US after WWII, was more useful than cries for revenge and payment from the loser.

Of course, each conflict is different, but some conclusions can be drawn. When the conflict ends, repair and recovery is necessary and cannot be paid for by a country whose infrastructure has been destroyed and whose people have suffered or fled in search of shelter. Assistance via an international organization or a multilateral effort is necessary and brings a new partner on board as a member of a peaceful community. The US Marshall Plan attempted this and made Europe a peaceful region; it solved conflicts between Germany and France and facilitated the creation of a European Union that defied becoming a satellite of the Soviet Union. The EU itself was built on the idea of peace and joint help.

The Marshall Plan was designed in such a way that countries could decide about their future. It created organizations like the OEEC which combined assistance with soft supervision. Ukraine and its new and old partners should try to learn from this and rebuild, while better addressing new and upcoming problems. Refugees and expatriates should be a part of this process. Working together with neighbors can prevent a depopulation that could lead to new unrest. The Ukraine Recovery Plan presented at the Lugano conference ventured many elements for the future of the Ukraine. The need of a Marshall Plan was stressed lately by the President of the European Commission Ursula Von der Leyen and the German chancellor Olaf Scholz in October 2022. This article may add further insights.

### Acknowledgments

Many thanks to Gerhard Allgäuer, Julia Bock-Schappelwein, Heinz Handler, Marcus Scheiblecker and Gunther Tichy for comments.

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## Notes

Note 1. For differences in real and nominal GDP, see Table 1.

Note 2. Ukraine has been noted as possessing many of the components of a major European economy: rich farmlands, a well-developed industrial base, highly trained labor, and a good education system, see Carnegie assessment.

Note 3. The number of children per women which had been about 2.2 in the longer term; it has now declined to 1.5 or less. As reported the population of Ukraine had decreased so dramatically, in the long run. Since its independence in 1991, Ukraine has experienced hard times in the political, economic, and social spheres. The socio-economic crisis sometimes eases, sometimes worsens, but does not disappear anytime. Heterogeneous birth rate dynamics marked the beginning of the 21st century in Ukraine, it increased during 2002-2009, the increase stopped in 2010-2011. Still, in 2012 the birth rate rose sharply, reaching the highest value in the last two decades. Since 2014, there has been a steady decline in the birth rate. The latest figure has all the elements that could cause a demographic catastrophe: it came about by deaths due to war, massive internal displacement, increased emigration, lower birth rates, and temporary occupation of territory.

Note 4. Many thanks to Julia Bock-Schappelwein for this point.

Note 5. [www.macrotrends.net/countries/UKR/ukraine/population](http://www.macrotrends.net/countries/UKR/ukraine/population).

Note 6. The Recovery Plan with 24 Annexes was presented at the Lugano-Conference in July 2022; it could be the route to a Marshall Plan.

Note 7. There has been a so-called “Europ äische Friedensfazilit ät (EFF)”; this plan is intended to rise from 5.7 bn € to 10-12 bn € up to 2027 (cumulative figures, not annual). And it has been used in part for weapons for Ukraine (Russian Daily 2022).