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UKRAINE: TEN SHOCKS

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About the Series

The *Studies in Applied Economics* series is under the general direction of Prof. Steve H. Hanke, Co-Director of the Institute for Applied Economics, Global Health and Study of Business Enterprise (hanke@jhu.edu).

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Summary

As of 2014, Ukraine faces unprecedented economic challenges as a result of the unresolved conflict and escalation of military actions in the eastern part of the country that have had severe impacts on its domestic stability, industrial base, financial sector and relationship with Russia and the West. Ukraine's economic struggles are the consequences of ten shocks: 1) the shock of "forgotten" reforms and weak competitiveness; 2) the "*27 minus 4*" shock; 3) the exports and market loss shock; 4) the budget shock; 5) the energy shock; 6) the currency devaluation shock; 7) the income shock; 8) the balance of payments shock; 9) the banking crisis shock; and 10) the debt shock. A peaceful resolution of the conflict and restored economic cooperation amongst all parties involved should be achieved as soon as possible to reduce the negative effects of the shocks and to avoid an unmanageable economic crisis.

Introduction

The unprecedented economic challenges Ukraine encountered in 2014 pose severe survival risks not only for the country itself, but also for its supporters, for whom the situation has far-reaching economic and financial implications. Moreover, the present condition also carries risks for further instability in Russia: a major nuclear state and global energy supplier. It is obvious that the current situation is a complete lose-lose game for all parties involved, which means it is not sustainable.

The way out may lie in an internationally negotiated compromise, which may, among other conditions, include the following elements: sustainable ceasefire and continued peace talks in the Minsk format; Ukraine's neutrality reinstated in parallel to a new multilateral security guarantee agreement for Ukraine; commitment by all sides to contribute to Donbas rehab project and restore mutually beneficial economic, investment and trade links; and sanctions to be lifted.

This may seem like the only win-win situation for all parties involved, namely Ukraine, Russia and the West.

For Ukraine, it is a chance to digest the impact of too many internal and external shocks, to partially recapture a much-needed Russian market and to win time and breathing space for competitiveness reforms, thus avoiding the risk of an escalating economic crisis and, possibly, of another revolution with a real threat of disintegration.

For Russia, whose economy has been severely aggravated by falling oil prices and suffocating sanctions, it is a chance to prevent an economic collapse and partially regain Ukraine's much-needed market, as well as to save face and avoid humiliation in the near future.

For the West, it is a chance to prevent what now seems to be a real threat of a broader (and possibly nuclear) war, to avoid dangers lying in the possible disintegration of the second largest nuclear state, to restore trade and investment links with Russia, as well as to substantially reduce an increasingly unaffordable bill for Ukraine's bailout.

The assessment of the bailout's true scale serves as the basis for such a conclusion. Ten shocks – increasingly interwoven and aggravated in 2014 – are now economically destroying Ukraine, undermining Russia and creating a significant political and financial liability for the West.

These are: 1) the shock of "forgotten" reforms and weak competitiveness; 2) the "*27 minus 4*" shock; 3) the exports and market loss shock; 4) the budget shock; 5) the energy shock; 6) the currency devaluation shock; 7) the income shock; 8) the balance of payments shock; 9) the banking crisis shock; and 10) the debt shock.

The Ten Shocks

How much do these shocks cost Ukraine and, for that matter, the country's external supporters?

1) *The shock of "forgotten" reforms and low competitiveness*

The shock of "forgotten" reforms and low competitiveness boils down to the fact that Ukraine is the only post-Soviet country in Europe that has yet to reach its 1990 level of output. Ukraine's 2014 GDP is expected to represent only 64% of that level. This economic lag has happened as a result of the lost opportunities for due reforms and of the complete dominance by the extremely resistant rent-and-oligarch commodity- and export-driven model of the economy. Becoming incubators for the country's oligarchs, privately-owned commodity-based low value-added industries – such as metallurgy (40% of export revenues), chemical industry (fertilizers), extraction industry (iron ore and coal), and agriculture – have been driven by the cheap natural gas subsidized through the growth of public debt, high corruption and rent-seeking activities. These industries are underpinned by gas import dependence and overall energy inefficiencies.

The model, fundamentally lacking in innovation and human capital, has rested on: 1) high GDP reliance on commodity exports; 2) under-developed domestic market; 3) extremely high income differentiation with a gap between upper and lower deciles reaching 1200% (for comparison, Germany – 690%, Belarus – 680%, Canada and Japan – 370% and Sweden 270%)[1]; 4) rent- and corruption-driven redistribution of the national income through the state budget.

The failure to dismantle this model against the backdrop of all other shocks and risks would most likely lead to a chronic depression (a lost decade phenomenon), even if the world economic outlook improves in the medium term. That may mean that Ukraine would have to rely in the nearest 10 years on substantial external support to make ends meet.

2) *The "27 minus 4" shock*

The "*27 minus 4*" shock emerged as a result of territorial losses (Crimea, Sevastopol, parts of Donetsk and Lugansk provinces), which significantly downsized the GDP, industrial output, exports and human resources. Since peace prospects so far remain obscure, this shock is likely to wield its negative impact, not only upon the provinces affected, but also on other oblasts and related industries.

Eastern provinces accounted for 16% of the country's GDP, 25% of the industry and 7% of agriculture. They also accounted for 77% of coal production, 23% of iron ore, 44% of pig iron, 27% of steel, 29% of fertilizers, 23% of machine-building, and 21% of energy production. This shock, which is "disabling" up to 20% of the country's GDP, has already greatly contributed to a sharp economic slump in 2014 estimated at 7% drop in the country's real GDP.

3) *The exports and market loss shock*

Ukraine's exports – accounting for 40% of GDP – shrank last year due to both the military conflict and the shrinking of the Russian market by almost 15%, which shaved off more than USD 10bn of foreign exchange revenues (or 0.7% of GDP). Russia and CIS absorbed 40% of Ukraine's exports, mainly in machine building, chemical and agribusiness sectors. The country's trade with Russia dropped by 35% in 2014, and this decline, which is detrimental to the existence of key export sectors, is set to continue in the nearest future. Among the biggest losers are Ukraine's iron and steel industry, railway and heavy machinery output, pipe production, electronic engineering as well as agriculture.

[1] Karpenko N.W. "Tendencies of dynamics and structure of the income of population in Ukraine and the regions." *Economics: Time Realities*, N 4(14). 2014.

This shock is aggravated by the fact that Ukraine has also become critically dependent on imports: the share of Ukraine-made goods in its domestic trade dropped, in our estimate, from 70% in 2005 to 55% in 2014.

Can the EU-Ukraine Free Trade Agreement compensate for the exports and market-loss shock? Yes, but only partially and within a much longer timeframe. The Oxford Economics assessment of 2012 suggests that the total cumulative FTA effect for Ukraine could reach 3.3% of GDP by 2025 (or 4.3% provided Russia is not actively counteracting this growth).[2] In the meantime, the effects of this shock could cost the country up to 1% of GDP, creating a USD 10-15 bn gap in the current account.

4) *Budget shock*

Budget shock, one of the most ruinous, has been caused by a chronic and growing deficit in the public finances. The consolidated government fiscal deficit (including bailouts of the state energy company Naftogaz and Pension Fund), which reached a critical 10.3% of GDP in 2014, is projected in 2015 at 7.4%.[3] This fiscal gap would require more than UAH 90 bn of debt financing. In our view, provided the ongoing conflict, a hard squeeze on household incomes and unaffordability of further increases in tariffs, this forecast already seems too optimistic.

Apart from traditional budget "black holes" (energy subsidies and budget support for the state Pension Fund), four additional public bills of significant size emerge: 1) a hike in military and war-related spending, which would amount to UAH 170 bn (a 25% growth compared to 2014 and accounting for more than 5% GDP in 2015), 2) a substantial increase in UAH-denominated debt service due to Hryvna's devaluation, 3) a growing bailout burden for the budget resulting from a failing banking system and 4) costs to socially protect circa 1.1 million internally displaced persons, 60% of whom are pensioners.

Facing a tax revenue squeeze due to recession and economic shocks, the government is on the path of fiscal activism (i.e. taxing pensions, introducing tax on farming) and dramatic cuts to social expenditures, including incomes, that could have otherwise supported already weak domestic consumption. Dramatic "tightening of belts" would delay recovery and intensify the social frustration and outrage.

5) *Energy shock*

The energy shock has been the result of a chronically unreformed and highly corrupt sector where energy intensity is among the highest in the world. Suffice to say that most billion-dollar fortunes in the country – which has one of the highest oligarch rates in Europe combined with the poorest population – have been linked to this sector. This shock results in the disproportionately high share of GDP, budgetary expenditures and forex revenues that have been re-distributed to the benefit of foreign producers, creditors, as well as corrupt bureaucrats.

In 2012-2014, the negative contribution of loss-making and unreformed Naftogaz to the quasi-fiscal deficit grew 16 times – from 0.5% of GDP to more than 8%! In 2010-2013, the

[2] "The Impact of an FTA between Ukraine and the EU." *Oxford Economics.* 2012. p. 122-123. http://www.oxfordeconomics.com/my-oxford/projects/128886.

[3] "Ukraine: Memorandum of Economic and Financial Policies." National Bank of Ukraine. March 2015. http://bank.gov.ua/doccatalog/document?id=10315035.

Naftogaz annual budget subsidy (recap) was UAH 4 – 8 bn, whereas in 2014 it soared up to UAH 70 bn. At the same time, insiders leaked that alleged bribes (kickbacks) reached up to 75% of the bloated value of public procurement contracts tendered by this state-controlled company.

Apart from natural gas imports from Russia, the country has become also critically dependent on coal imports for electricity generation, also mainly from Russia. The annual coal import bill could rise an additional USD 1.5–2.0 bn., increasing overall energy dependence on Russia.

Thus, the direct financial impact of the energy shock could be estimated as follows: 1) imports of natural gas – USD 11 bn; 2) imports of coal – USD 1.5–2.0 bn; 3) budget subsidy to Naftogaz – around UAH 100 bn, including USD 3.1 bn payment to Gazprom. It all boils down to the exorbitant costs (est. UAH 300 bn or close to 20% of GDP), which the country now simply cannot afford.

6) _Devaluation shock_

Devaluation shock has become one of the major threats to macroeconomic stability, real incomes and soundness of the banking system. The IMF-prompted decision by the central bank in early 2014 to freely float the exchange rate and simultaneously provide unlimited liquidity to the banking sector has triggered, against the backdrop of mounting instability and conflict in Donbas, a *devaluation inflationary spiral* that has become highly resistant to regulatory and administrative action.

During 2014, Ukrainian currency depreciated by almost 100% against the US dollar, by March 2015 – by 186% thus breaking all records. The devaluation "pass-through" effect on inflation is assessed at 30% of the devaluation rate. The official CPI by end-2014 already reached 25% and by March 2015 reached 28.5% year-over-year.

Official inflation data seems to significantly depart from reality. Prof. Steve H. Hanke from Johns Hopkins University insists that Ukraine has already entered into the dangerous hyperinflation zone with monthly CPI growth exceeding 50%.[4] Based on devaluation-inflation pass-through effect, our estimates suggest an inflation rate on year-over-year basis at more than 80%. However, Prof. Hanke may not be far from reality later this year when retail utility tariffs for the population are to be raised by another 285%,[5] which, in our view, would further feed the devaluation-inflationary spiral, worsen financial instability and may lead to hyperinflation.

Two more sources fuel the devaluation-inflationary spiral: 1) the central bank's liquidity support (refinancing) to commercial banks (outstanding portfolio of UAH 110 bn), and 2) monetization by the central bank of the government short-term debt (more than UAH 160 bn in 2014).

Hryvna devaluation in 2015 will cost the budget an estimated extra UAH 30 bn in debt service. In addition, if the Hryvnia exchange rate were to remain below 20:1, it will have a

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[4] Hanke, Steve H. "Ukraine Hyperinflates." *Cato Institute*. February 24, 2015. http://www.cato.org/blog/ukraine-hyperinflates.

[5] "Ukraine: Memorandum of Economic and Financial Policies." National Bank of Ukraine. March 2015. http://bank.gov.ua/doccatalog/document?id=10315035.

further detrimental effect on key macroeconomic fundamentals: nominal GDP may fall, as a result, by estimated 10-15 bps, gross capital formation – by 25-30 bps, industrial output – by 20-30 bps, real wages – by 15-20 bps and exports – by 10-15 bps.

7) *Income shock*

Income shock, which gained full momentum since Q4 2014, has become another factor severely aggravating the overall situation. As a result of inflation and loss of bank deposit incomes, last year alone the real household disposable income shrunk by an estimated 30% thus affecting the purchasing power and consumption patterns of almost all income groups. Provision of basic food and medicines has become the main priority for most families, and UN experts have already sounded a loud alarm warning about a surge in the poverty rate to above 30%.

Household and business income losses due to withdrawal of bank deposits (more than UAH 160 bn during 2014 alone) could be gauged at minimum UAH 10 bn, while the low and lower middle classes were particularly hit hard due to the surge in inflation, devaluation, account freezes and multiple bank failures.

The income shock experienced by households is putting a downward pressure on private consumption (estimated to have fallen 10% in 2014 and fall another 10-15% this year), which in turn could cost Ukraine, in our view, up to 2% in GDP growth in 2015-2016.

8) *Balance of payments* shock

Balance of payments shock affects the economy through the sharp drop in foreign exchange earnings, mass capital flight as well as divestiture.

One major channel is the country's persistent current account deficit. Despite a massive devaluation of the local currency, the BOP imbalance has not been eliminated. Even though the current account deficit last year fell to 4% of GDP from 8.7% a year earlier, positive balances on services (tourism and transportation) as well as private transfers noticeably shrank. The government's forecast of a 1.5% current account deficit in 2015 may be overoptimistic due to ongoing military conflict affecting some key export sectors and adverse external conditions. We would put this deficit at minimum 2-3% of GDP provided the situation doesn't deteriorate.

Another channel is linked to downward FDI dynamics. For the first time in Ukraine's history, the FDI stock in 2014 fell by more than USD 10 bn - from USD 59 bn to 48 bn, of which physical net outflow is estimated at more than USD 1.0 bn. The largest investors that account for more than 50% of all foreign investment in Ukraine originate from offshore jurisdictions (mainly Cyprus) and tax optimizers (The Netherlands, the UK, Luxembourg and Switzerland) with the bulk of this investment having Ukrainian or Russian roots. Russia with USD 3.6 bn in investment stock comes in second after Germany.

Given the current circumstances, it is unlikely for Ukrainian and Russian investors to make significant investments in the short term, thus any tangible FDI growth in 2015-2016 should theoretically be linked to EU and US investors. However, existing regulatory, tax, arbitrary justice and corruption issues in Ukraine would likely cause these Western investors to abstain from any sizeable investment decisions until the war risks and political tensions subside. The IMF-supported ambitious deregulation, anti-corruption and investment climate reforms by the government face significant resistance from insider-vested interests as well as lack of room for maneuver in terms of popular support.

Another feeder for the balance of payments shock is persistent capital flight from Ukraine. During 2000-2008, more than USD 82 bn left Ukraine, roughly 9-10 bn a year. The trend persisted unabated in 2009-2014, which easily puts the total figure of Ukraine's flight capital at more than USD 140 bn, a figure exceeding the country's GDP!

The deficit for capital account in 2014 amounted to USD 8.1 bn (against the USD 18 bn surplus in 2013), which brought the overall balance of payments gap to more than USD 13 bn financed mainly through the reduction of the country's foreign exchange reserves that now barely cover one month of critical imports.

Thus, this shock's impact already reached almost 10% of GDP (USD 13 bn), and the prospects for improved balance of payments outlook in the next two years remain problematic. In 2015, even if this shock were to persist at a slightly lower level (e.g. USD 8-10 bn), the country would still require sizeable external support.

9) *Banking crisis shock*

Banking crisis shock emerged in 2014 as a the result of: a) the toxic assets surge in the banks' balance sheets; b) mass deposit outflows and resulting liquidity shortages; c) impact of the devaluation shock; d) massive bank insolvencies, e) growing financial burden of the bank bailouts and deposit insurance for the state budget.

The toxic assets' share in the bank portfolios has exceeded 50-55%, while the ongoing deposit withdrawals by households reached by end-2014 a startling figure of UAH 200 bn or more than 30% of the total.

According to a previous IMF assessment, the banking sector, under the 12:1 UAH-USD exchange rate scenario would require budget support of no less than 5% of GDP. With the exchange rate already above 20:1, this figure should be dramatically revised.

The cumulative effect of the banking shock, including the bank recapitalization, funding of the state deposit insurance scheme and losses of income by households and businesses, could in 2015-2016 easily exceed UAH 150 bn (or 7.1% of GDP).

10) *Debt shock*

Debt shock or sovereign insolvency risk has become one of the most serious threats. In 2009-2014, the public and publicly guaranteed debt increased from USD 40 bn to almost 73 bn or 1.8 times. With the 21:1 exchange rate applicable recently, this figure denominated in Ukrainian currency equates to almost 100% of nominal GDP expected this year. The country's gross debt estimated at USD 153 bn in 2015 would become equal to more than 230% of nominal GDP!

Additional financial burden of debt repayment and debt service would in 2015 alone exceed UAH 290 bn (or 20% of GDP), in which the devaluation component has now grown from UAH 62 bn at end-2014 to more than UAH 80 bn.

With such perilous debt and debt service to GDP ratios, the only way for Ukraine to avoid insolvency is to achieve successful debt restructuring with holders of the country's external debt. The government has already outlined its debt restructuring objective to bring by 2020 public and publicly guaranteed debt under the 71% in debt/GDP ratio mainly through additional budget savings on the repayment and service of USD 15.3 bn government and government-guaranteed debt. While the debt restructuring is still at early consultation stages, there are several risks to this process already identified: a position of the Russian Federation on the USD 3.0 bn eurobonds; adverse impacts of growth and real exchange rate shocks on the overall debt sustainability.

Findings and Conclusion

In a nutshell, what does this analysis imply?

1) Ukraine's economy has been severely crippled by the 2014 shocks. These shocks carry a specific price tag in terms of Ukraine's GDP, a loss of foreign exchange revenues, a squeeze on disposable incomes and domestic demand, and a further contribution to already negative growth. Their combination may cost Ukraine up to 20-30% of its GDP and lead to a conservation of the low income "European Pariah" status with dire social and human costs. The country's capacity to quickly recuperate, rejuvenate economic activity and improve social standards is now dependent on external assistance and genuine transformation of the economic model. Ukraine may be running the risk to become Europe's only straightforward failure case unless the war is stopped, ambitious reforms implemented, damage to industrial base repaired, some trade relations with Russia restored and sufficient external financing support granted in a timely manner.

Table 1. Assessment of Ukraine's financing gap in 2015

External financing needs	USD, billion	**Domestic financing needs**	UAH, billion	**Available & pending commitments**	USD, billion
Imports of natural gas	11	Devaluation add-on to external debt service	80	IMF loan (4-year disbursement)	10
Imports of coal	2	Est. budget shortfall on Naftogaz	60	World bank	1
Debt repayment & service	11	Est. budget shortfall on domestic debt service	30	EU	1.76
		Est. budget shortfall on pension fund revenues	50	Bilateral donors	0.7
		Est. budget shortfall on bank recap & deposit insurance	40		
Subtotal	24		260/12		13.5

Sources: author's calculations based on official statistics and analytical reports, Ukraine: Memorandum of Economic and Financial Policies, March 2015.

2) External aid is now needed not only to cover critical imports and debt service needs but also to compensate for domestic imbalances, which resulted from the above shocks. Without external support for the budget, the government would have to revert to massive printing of money, which would quickly lead to hyperinflation and social chaos.

Under the recently approved IMF's Extended Fund Facility, the financing gap in 2015-2018 is expected at USD 40 bn, which, for the time being, is to be covered by a 17.5 bn IMF loan, 7.2 bn – from other multi and bilateral donors and 15.3 bn via the debt restructuring.[6] By end 2015, Ukraine (see Table 1) can expect up to USD 10 bn from the IMF and about USD 3.5 bn from official creditors.[7]

It becomes apparent that the rest of the financing should come from restructuring Ukraine's external debt (Eurobonds and notes) held by the private sector. With the proposed overall burden of the 2015-2018 bailout package clearly shifting from official donors to the international markets, with terms of restructuring still unknown and many risks to the country's solvency still omnipotent, it would be premature to consider this source of financing as guaranteed. It is especially uncertain since Ukrainian authorities intend to include into the restructuring package the notorious USD 3 bn bonds financed by Russia and due for redemption in December 2015.

That said, this still leaves the country with a USD 20 bn financing gap for the current year and another 10-15 bn, in our estimate, for 2016-2018. Provided that the debt restructuring (15.3 bn) and a receipt of additional official aid (3.7 bn) is successful, the financing gap in 2016-2018 could still be expected at USD 11-16 bn.

3) The above financing gap amount doesn't take into account the Donbas economic and social rehabilitation needs, which may involve a similar figure when these needs can be dealt with. The failure of the West to urgently make necessary financial commitments might create, apart from economic collapse, a huge social whiplash against Ukraine's EU aspirations.

To lose Ukraine economically would be a much sadder outcome than to lose it politically. All this, therefore, warrants an extraordinary anti-crisis, internationally supported action plan. Currently, the occasional bilateral commitments fall significantly short of the real financing needs, which can only be achieved through a *comprehensive, full-scale, well-coordinated bailout plan*.

4) Further deterioration of the already alarming situation, including a broader European war, would increase, apart from incalculable loss of human life, the bailout costs exponentially and commit the Western alliance to what it is reluctant to do – to put Ukraine on its payroll for indefinite period of time with uncertain outcome. The war option, which may become a dreadful reality if Ukraine is supplied with weapons, will make all economic predictions irrelevant and the costs immeasurably higher for all sides involved.

Thus, the only way out is a way towards a compromise. It seems that this notion has already gained traction in Europe. As the old folk wisdom goes, *any bad peace is better than any good war*.

Kiev. March 13, 2015.

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[6] The Ministry of Finance Webcast Presentation to Debt Holders. Ministry of Finance of Ukraine. March 13, 2015. http://www.minfin.gov.ua/control/en/publish/article?art_id=410363&cat_id=264727.

[7] "Ukraine: Memorandum of Economic and Financial Policies." National Bank of Ukraine. March 2015. http://bank.gov.ua/doccatalog/document?id=10315035.