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Public Foreign Debt and Economic Growth in Ukraine

Abstract

On the surface, a rapid accumulation of public external debt over the last few years has been motivated by the logic of stabilisation policy, following a deep recession during the 2008–2009 financial crisis and slow post-crisis recovery. However, it is exactly the excessive build-up of foreign debt that is blamed for recent macroeconomic difficulties.

Based on the quarterly data for the years 2000–2013, it was found within the SVAR framework that an increase in public foreign debt is associated with a short-lived increase in output, with a decline in that indicator to follow, and nominal exchange rate depreciation, with no impact on the current account. On the other hand, either the current account deficit or the exchange rate depreciation contribute to a higher debt level, while there is no output effects on the public foreign debt. Among other results, the exchange rate depreciation brings about an improvement in the current account, but its impact upon the output is restrictionary. Also, there is a virtuous two-way causality between the output and the current account that underlines the importance of external equilibrium for Ukraine's economy. Our results are robust to changes in the length of the data sample and the choice of industrial output as a proxy for output.

Keywords: public foreign debt, economic growth, exchange rate, the current account, Ukraine.

1. Introduction

As mentioned by F. Balassone, D. Franco and S. Zotteri (2004, p. 27), the limits and the effects of public debt have long been at the core of the fiscal policy debate, regarding the allocation and distribution of resources and the stabilisation function of government. Considering the effects of excessive debt accumulation, as seems to have been the case in Ukraine in the years 2008–2014 (Fig. 1a), international experience shows that a decrease in the amount of public debt via consolidation, inflation or default has frequently proved economically problematic and has produced significant political consequences. It is especially the case if the occurrence of a sovereign debt crisis produces large exchange rate depreciation, which used to be preceded with a period of an overvalued real exchange rate. Resisting currency depreciation since the middle of 2012 could have been a proper option for policymakers only if the fundamentals were improving – for example, the terms-of-trade (TOT) or fiscal stance – but that was not the case. As the authorities instead chose a policy of public foreign debt accumulation (Fig. 1a), the macroeconomic imbalances were not corrected and a harsh economic crisis ensued, at the beginning of 2014. Although it is not ruled out that resisting a crisis may either enhance or undermine the sustainability of the exchange rate regime, what matters is the level of public debt (Benigno & Missale 2004, pp. 165–188). The macroeconomic situation is further worsened if too much foreign debt leads to an unsustainable worsening of the current account (Blanchard 1983, pp. 187–198). As increasing the public foreign debt might have been intended to help Ukraine's gross domestic product (GDP) recover, it has happened against the backdrop of a downward trend in the current account deficit (Fig. 1b). Since the beginning of 2012, the current account deficit has been exceeding its pre-crisis level of 9% of GDP, despite a substantial depreciation in the nominal effective exchange rate (NEER) in the wake of the 2008–2009 financial crisis.

A look at Fig. 1 reveals a direct relationship between the public foreign debt and GDP growth, with a likely causal link to the current deficit, but it should not be taken for granted. Under assumptions of lump-sum taxes, infinite horizons, and perfect capital markets, the form and quantity of public debt are irrelevant under the Ricardian equivalence, as the known present value of taxes is fixed by the given path of government spending (Barro 1999, pp. 281–289). Abstracting from the government's incentives to default on its outstanding foreign debt obligations, the present value of taxes paid by domestic residents is invariant with a current budget deficit. However, it is a conventional result that public debt contributes to output growth, at least in the short run, and can lead to an increase in the interest rate and widening of the current account deficit (Elmendorf & Mankiw 1999, pp. 1615–1669). There is evidence that expansionary effects of
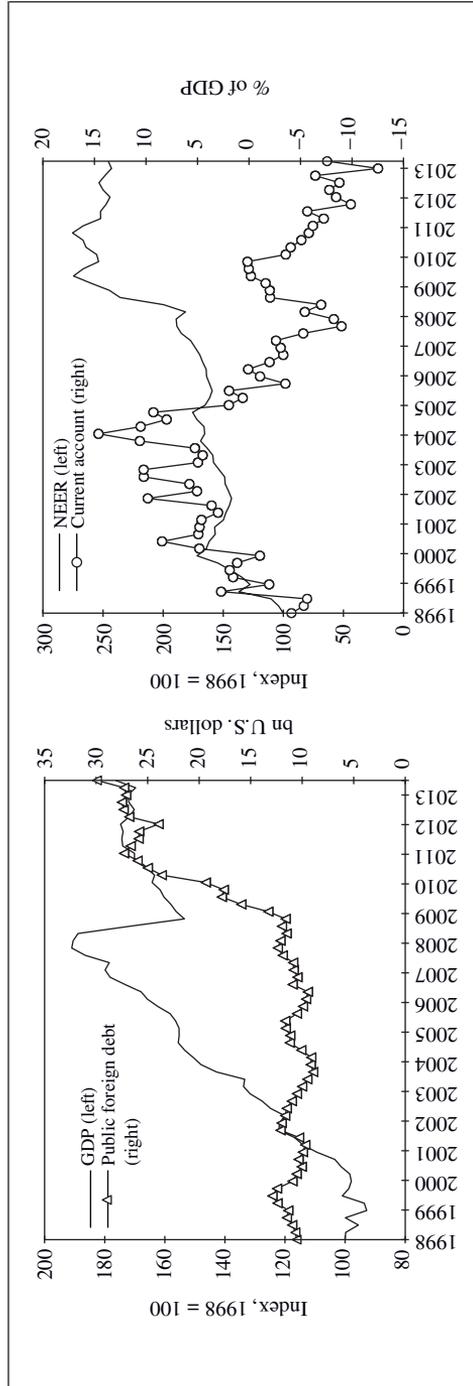
Fig. 1. Ukraine: Selected Macroeconomic Indicators, 1998–2013

Source: Ukraine's State Committee of Statistics, National Bank of Ukraine, *IMF International Financial Statistics.*

public debt accumulation are lost above a certain threshold of the debt/GDP ratio (Baum, Checcherita-Westphal & Rother 2013, pp. 809–821; Cecchetti, Mohanty & Zampolli 2011; Herndon, Ash & Pollin 2014, pp. 257–279; Reinhart & Rogoff 2010, pp. 573–578; Reinhart, Reinhart & Rogoff 2012, pp. 69–86). In fact, no such effects have been detected in many empirical studies for low- and middle-income countries regardless of the level of public indebtness (Daud & Podivinsky 2011, pp. 1–15; Sen, Kasibhatla & Stewart 2007, pp. 3–11).

Growth effects of public debt are dependent on the composition of government expenditure and the way the budget deficit is run – through an increase in expenditure or a decrease in taxes. Additional explanations are provided along with the political economy guidelines. Although it has been a long tradition among economists to base their fiscal policy recommendations on the assumption of a benevolent dictator that spends wisely and efficiently to benefit society, it is more realistic to take account of the possibility of inefficient government rules, re-election policies and personal ambitions, which cannot but affect decisions on the public debt (Yared 2010, pp. 806–840). Also, citizens cannot perfectly regulate policymakers in many instances. On the other hand, the accumulation of public debt correlates positively with income per capita and trade openness (Lane 2004, pp. 1–21).

This paper presents an empirical study of public debt effects for Ukraine within the analytical framework of Structural Vector Autoregression (SVAR) methodology. The remainder of the paper is as follows. Section 2 contains a review of the literature while Section 3 describes the statistical model and data. Section 4 discusses the results and Section 5 concludes.

2. Review of the Literature

The existence of public debt can be viewed from three perspectives: public finance, monetary policy and political economy (Balassone, Franco & Zotteri 2004, p. 28). From the viewpoint of public finance, public debt accumulation is justified in the cases of natural disasters, public investments or stabilisation policies. As presented by P. Elmendorf and G. Mankiw (1999, pp. 1615–1669), the conventional view of the short- and long-run effects of public debt on an economy implies that it is possible to expect the increase in aggregate demand and better utilisation of the economy's factors of production. However, potential constraints for accumulation of the public debt are quite numerous: 1) a decrease in national savings as private saving rises by less than public saving falls, with a smaller domestic capital stock and lower output and income in the long run, 2) reduction in the average real wage and total labour income due to a lower labour productivity,

3) worsening of the current account, 4) an increase in the long-run interest rate, 5) acceleration of inflation, 6) the deadweight loss of the taxes needed to service the debt, 7) reduction in the fiscal flexibility of the government, 8) stronger vulnerability to a crisis of international confidence.

Many countries have had painful experience with government debt induced exchange rate depreciation in the long run, while the currency is likely to be overvalued in the short run due to capital inflows. In the presence of the public foreign debt, the intertemporal budget constraint proceeds as follows:

$$T = G + rD_{t-1} + (r^* + \Delta)\, E \cdot D^*_{t-1}, \tag{1}$$

where T are taxes, G is government expenditure, r and r^* are domestic and foreign interest rates, Δ is the risk premium, D_t and D^*_t are domestic and foreign public debt liabilities, and E is the nominal exchange rate.

The amount of taxes should be enough for financing government expenditure and servicing of the domestic and foreign debt. Higher interest rates or exchange rate depreciation increase the burden of debt servicing, thus aggravating the perspective of debt sustainability. Expansionary monetary policy can be desirable for the purpose of lowering the interest rate, but this option is less viable if the share of foreign debt liabilities is large enough as the likely exchange rate depreciation leads to an increase in the level of total public debt. From this point of view, it is reasonable to arrange some sort of exchange rate stability, but it is not without potential debt traps. For a specific case of the currency union, countries featuring relatively severe market distortions, substantial public spending requirements, high initial debt levels or bad shocks strategically over-accumulate public debt in order to induce the union's central bank to relax future monetary policy (Beetsma & Bovenberg 2002, pp. 1–15).

Several political economy factors can make things even worse in respect to either investments or economic growth. P. Yared (2010, pp. 806–840) proposed a model that explains potential distortions arising from rent-seeking politicians. Assuming that their utility increases in rents, which is defined as excessive public spending with no social value, the policies of the benevolent government cannot be implemented because of limited commitment: a politician cannot commit to policies once in office and citizens cannot commit to keeping the incumbent in power in the future. In the presence of political economy constraints, taxes are not constant but volatile, and taxation responds persistently to shocks. As a result, the increase in public debt makes it easier for politicians to get re-elected, as there is less to potentially appropriate, thus leading to persistently higher taxes in the presence of rent-seeking. Moreover, taxes are supposed to be volatile and potentially persistent even in the long run.

According to P.-R. Agénor and J. Aizenman (2005, pp. 1–13), a shift to the wrong side of the economy's debt Laffer curve implies potentially sizable output and welfare losses[1]. The distortionary influence of real-world taxes is considered to be the most important reason for the failure of Ricardian equivalence by R. Barro (1999, pp. 281–289). Consequently, it is concluded by him that the policy of paying for added public spending with debt issue works only if the extra spending is temporary, with a suggestion that budget deficits should be high at times of temporary economic distress and low (typically negative) in good times.

As was shown by A. Aguiar, M. Amador and G. Gopinath (2009, pp. 1–31), it is not only the lack of commitment – which was a prominent feature in the earlier models of the excessive debt accumulation – but the risk of losing office that makes the government impatient relative to the market, thus leading to worsening of the economy's long-run properties. The combination of the government's impatience and inability to commit generates perpetual cycles in both sovereign debt and foreign direct investment in an environment in which the first best capital stock is constant. The model explains the well-known "debt overhang effect" on investment, where current levels of debt negatively affect future investment, and the rise in expropriation risk during crises in emerging markets and the depressed investment levels following these crises.

C. Reinhart and K. Rogoff (2010, pp. 573–578) provide evidence that public debt overhang episodes, where gross public debt exceeds 90% of nominal GDP on a sustained basis, are associated with lower growth than other periods are. They also determined, in another study, that the growth-reducing effects of high public debt are not confined to debt buildups during business cycle recessions, being apparently not transmitted exclusively through a high real interest rate (Reinhart, Reinhart & Rogoff 2012, pp. 69–86). In 11 out of 26 episodes identified, interest rates were not substantially higher. On average across individual countries, debt/GDP levels above 90% are associated with an average annual growth rate 1.2% lower than in periods with debt below 90% debt; the average annual levels are 2.3% during the periods of exceptionally high debt versus 3.5% otherwise. It is suggested that the long-term secular costs of high debt need to be weighed against the short-term expediency of Keynesian fiscal stimulus. S. Cecchetti, M. Mohanty and F. Zampolli (2011) obtained similar results for 18 OECD countries: the threshold for government debt is around 85% of GDP; thresholds for corporate and household debt are detected at the level of 90% of GDP and 85% of GDP, respectively.

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[1] The debt Laffer curve implies that expected debt repayment first rises with the rise in the debt stock and then declines as debt increases; consequently, debt overhang occurs at the peak of the debt Laffer curve (Sen, Kasibhatla & Stewart 2007, p. 4).

However, several studies report a much lower public debt threshold. C. Baum, C. Checherita-Westphal and P. Rother (2013, pp. 809–821) found for 12 euro countries that the short-run impact of debt on GDP growth is positive and highly statistically significant, but decreases to around zero and loses significance beyond public debt/GDP ratios of around 67%. T. Herndon, M. Ash and R. Pollin (2014, pp. 257–279) charge C. Reinhart and K. Rogoff (2010, pp. 573–578) with selectively excluding available data, coding errors and inappropriate weighting of summary statistics that presumably led to serious miscalculations that inaccurately represent the relationship between public debt and GDP growth among 20 advanced economies. It is found that both mean and median GDP growth rates when public debt levels exceed 90% of GDP are not dramatically different from when the public debt/GDP ratios are lower. Also, the relationship between public debt and GDP growth varies significantly by period and country.

Empirical studies for low- and middle-income countries are less favourable for the growth effects of debt accumulation, regardless of the discussion on debt thresholds. S. Daud and J. Podivinsky (2011, pp. 1–15) find empirical evidence that developing countries of the East Asia and Pacific, Latin America and Caribbean and the Sub-Saharan Africa regions all show a negative relationship between their foreign debt and economic growth. S. Sen, K. Kasibhatla and D. Stewart (2007, pp. 3–11) found that debt overhang impeded growth in Latin American economies severely while the impact was only moderately negative in the Asian region.

Among other public debt-related results, the issues of exchange rate policy and external shocks are of particular interest. Earlier models of the 1980s imply that currency devaluation leads to unexpected inflation, which increases output, both through a standard price-output effect and through the reduction of the distortionary taxes associated with nominal debt service. In one recent study, P. Benigno and A. Missale (2004, pp. 165–188) established that whether the exchange rate regime gains or loses credibility after a successful defense is uncertain. The likelihood of a forced future devaluation is increased by the debt burden, defined as a combination of large public debt and little uncertainty about the government's cost of devaluation. When the government's preferences are publicly known, the probability of devaluation increases with the size of the public debt and with the share of it that is short-term. Under such circumstances, it is expedient to reduce the amount of borrowing *ex ante*, thus mitigating the (real) exchange rate depreciation and preventing a further tightening of financial constraints (Bianchi 2011, pp. 3400–3426).

T. Eicher, S. Schubert and S. Turnovsky (2008, pp. 876–896) demonstrate that favourable terms of trade (TOT) shocks – the relative price of exports to imports – could cause the long-term debt level to be overshot. As the TOT shocks are expected to improve the current account balance, this implies a proportional

relationship between the current account deficit and debt accumulation. In a similar fashion, O. Blanchard (1983, pp. 187–198) makes the point that an anticipated adverse shift in the TOT would lead to lower levels of feasible consumption and trade balance deficit. Despite the empirically established fact that per capita GDP growth and trade openness are positively associated with the level of foreign debt, as more open economies are better credit risks (Lane 2004, pp. 1–21), this does not seem to be an argument in favour of further public foreign debt accumulation in Ukraine since 2011, as there has been a significant worsening of the country's TOT due to a decline in global metal prices combined with an increase in oil and natural gas prices.

3. The Statistical Model and Data

Assuming feasibility of several theory-consistent restrictions on the behaviour of endogenous variables, the SVAR methodology is an appropriate choice for the statistical modelling tool. In the most general form, the SVAR model is represented by the following infinite vector moving average representation:

$$A_0 X_t = A(L) X_{t-1} + B\varepsilon_t, \tag{2}$$

where X_t is an $N \times 1$ vector of the endogenous variables, $A(L)$ is a polynomial variance-covariance matrix, L is the lag operator, ε_t is a vector of white noise disturbances, B is a structural form parameter matrix, and A_0 is the matrix that allows for modelling of the instantaneous relations ($A_0 e_t = \varepsilon_t$, i.e. the structural (economic) shocks are linear combinations of the VAR errors e_t).

The reduced form of the VAR model is as follows:

$$X_t = A_0^{-1} A(L) X_{t-1} + A_0^{-1} B\varepsilon_t = C(L) X_{t-1} + u_t, \tag{3}$$

where $C(L)$ is a matrix representing the relationship between lagged endogenous variables and u_t is a vector of normally distributed shocks that are serially uncorrelated but could be contemporaneously correlated with each other.

The reduced-form VAR disturbances are related to the structural disturbances in the following way:

$$A_0 u_t = B\varepsilon_t. \tag{4}$$

The specification of our SVAR is as follows (in terms of the contemporaneous innovations):

$$e = u_1, \tag{5}$$

$$ca = a_1 e + a_2 y + u_2, \tag{6}$$

$$debt = b_1\,ca + u_3, \tag{7}$$

$$y = c_1\,e + c_2\,ca + c_3\,debt + u_4, \tag{8}$$

where e is the nominal effective exchange rate, ca is the current account, *debt* is public foreign debt, and y is domestic output.

It is assumed that the NEER is independent in the current period of changes for other endogenous variables (equation (5)). Such a feature is fairly consistent with the policy that has the Ukrainian currency de facto pegged to the U.S. dollar that the National Bank of Ukraine has been practising since the beginning of 2000, with several unannounced realignments of the exchange rate parity in 2005, 2008 and 2014. As is customary, the current account balance is affected by the NEER and output (equation (6)). A standard relationship of the IS-LM-BP (Mundell--Fleming) model implies that the improvement in the current account is expected following exchange rate depreciation ($a_1 > 0$). Output effects are ambiguous ($a_2 <> 0$). Based on the (positive) income elasticity demand for imports, it is possible to argue that higher output is associated with a worsening of the current account. However, the "45° rule" implies that the current account improves due to a higher supply of exports caused by a corresponding increase in output.

The amount of public foreign debt is expected to decrease with an improvement in the current account (equation (7)), as the requirements for external financing become weaker ($b_1 > 0$). Finally, output is supposed to be a positive function of the current account ($c_2 > 0$) and the public foreign debt ($c_3 > 0$), at least in the short run. The impact of exchange rate depreciation can be either expansionary ($c_1 > 0$), as is assumed in the IS-LM-BP model, or restrictionary ($c_1 < 0$), taking into account unfavourable supply-side effects.

Our analysis is based on quarterly data from 1998 to 2013, as presented in Fig. 1. Data on GDP are taken from the Ukraine's State Committee of Statistics, on the public foreign debt and current account from the National Bank of Ukraine, and on the nominal effective exchange rate from the IMF *International Financial Statistics* online database. The current account and GDP series are seasonally adjusted with the Census X-11 method. As independent variables, data on the world metal prices, as provided by the IMF, and a dummy for crisis developments are used (1999Q1–2000Q1, 2004Q3–Q4, 2008Q3–2009Q4 – 1, otherwise 0). We include two lags in the SVAR model, as indicated by the Akaike criterion.

4. Empirical Results

Impulse response functions are presented in Fig. 2. There is a clear link between public foreign debt and exchange rate depreciation, which is sustained over a long time horizon (Fig. 2a). This suggests that accumulation of foreign debt liabilities is

a) determinants of the NEER

b) determinants of the current account

c) determinants of public foreign debt

d) determinants of output (GDP)
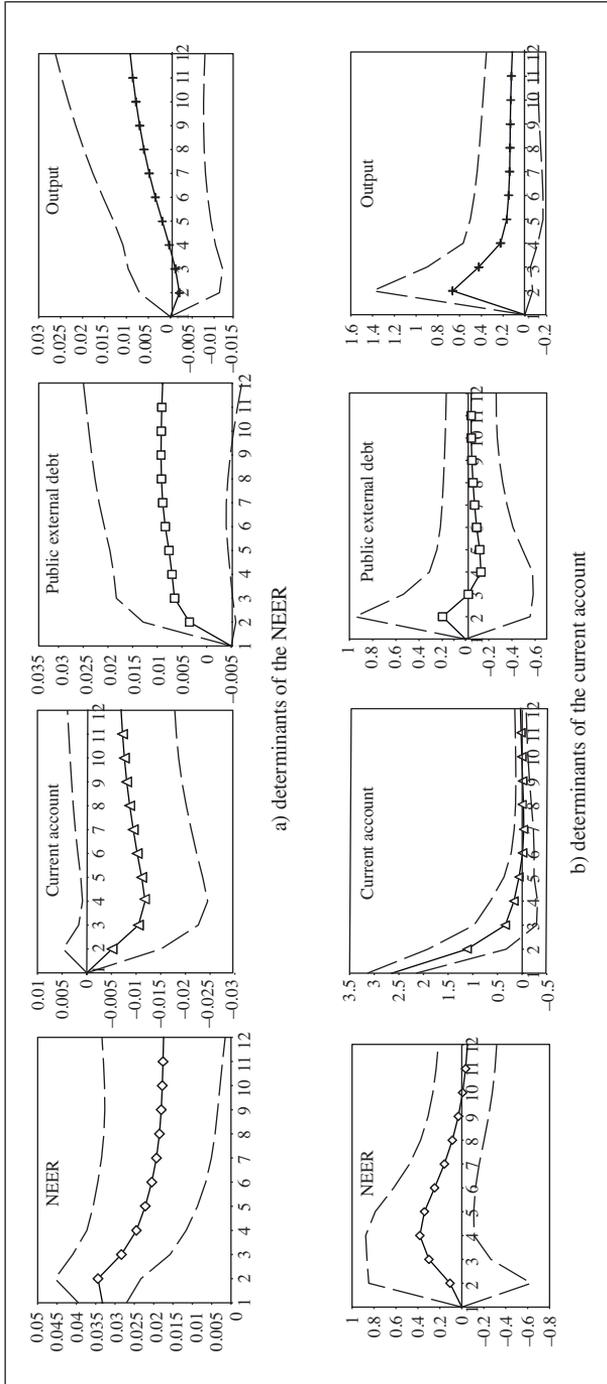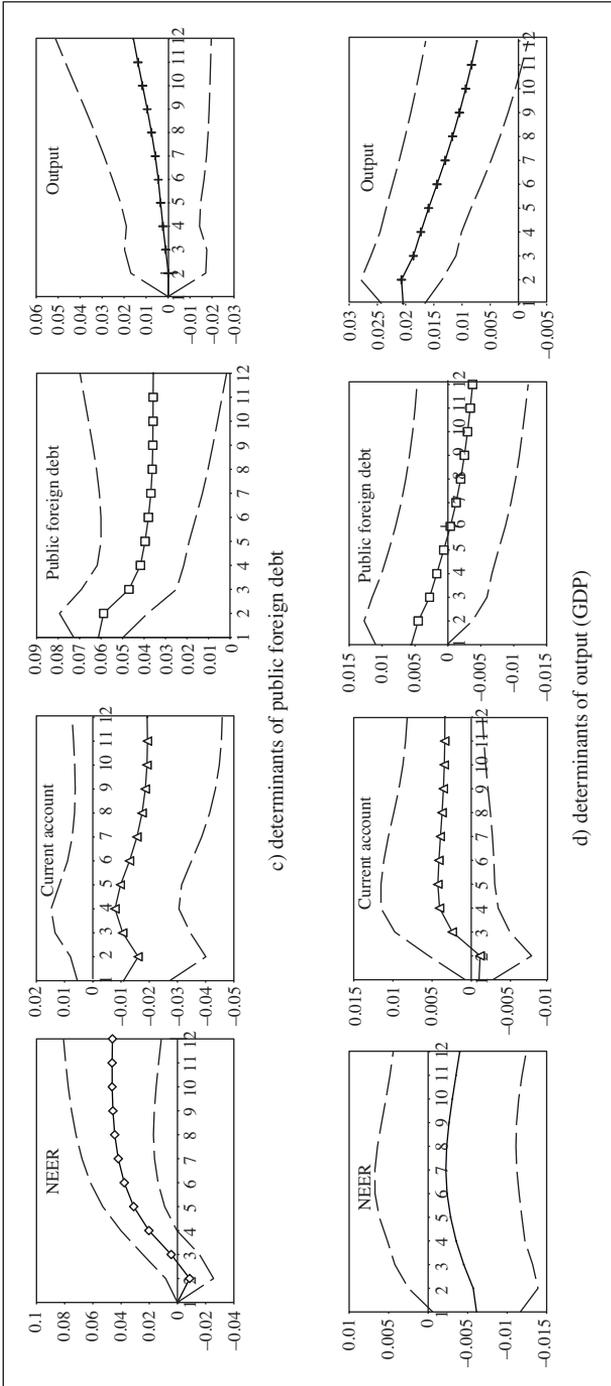
Note: the upper and lower bounds represent a two-standard deviation confidence interval.

Fig. 2. Impulse Response Functions for Endogenous Variables

Source: the authors' own calculations.

a) determinants of the NEER

b) determinants of the current account

c) determinants of the public foreign debt

d) determinants of the output (GDP)
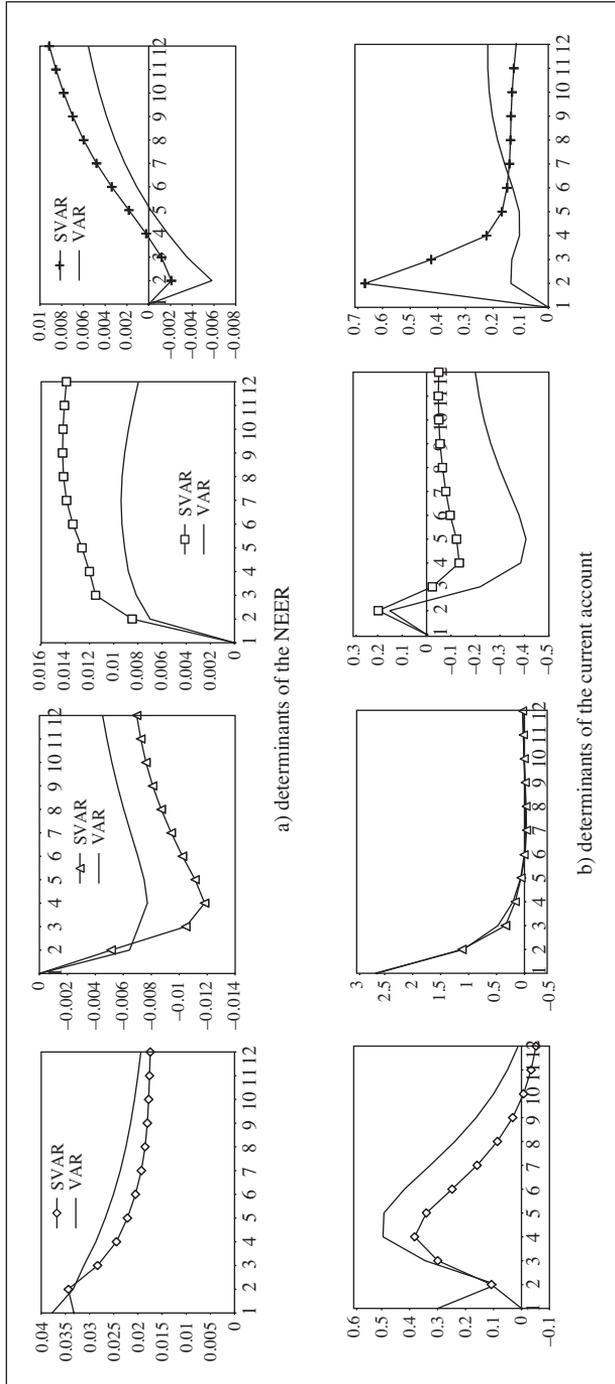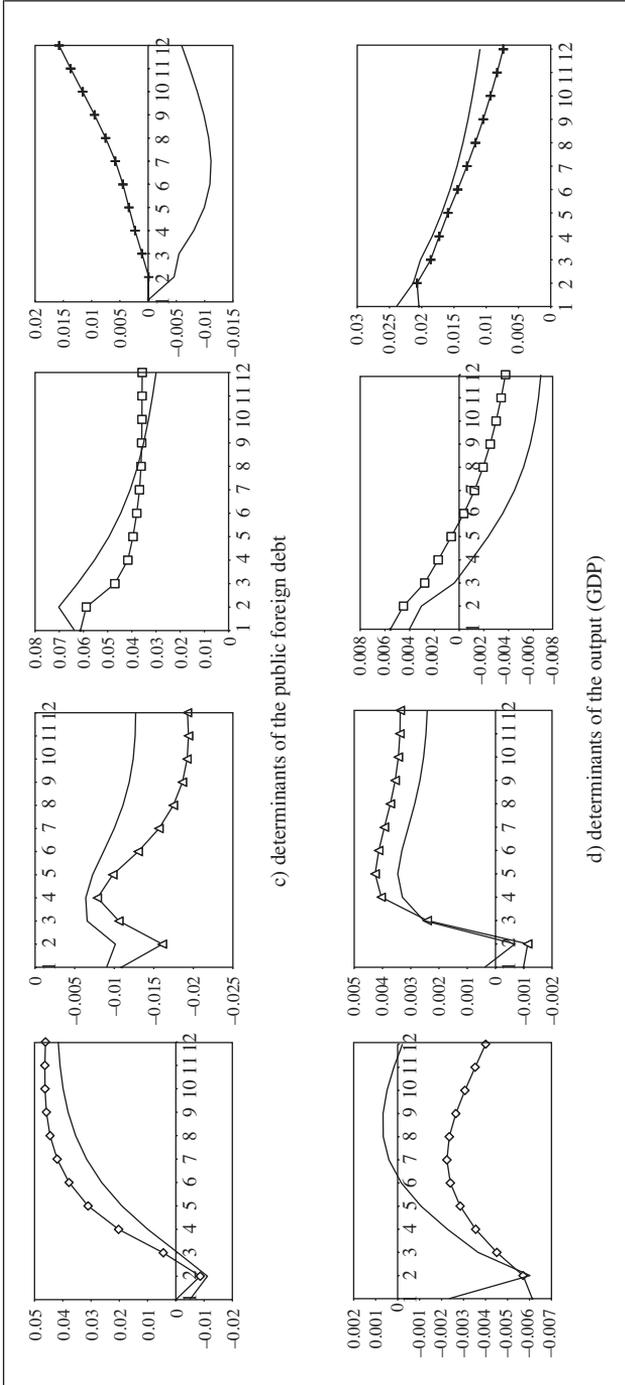
Fig. 3. Comparison of the Impulse Response Functions for SVAR and VAR Estimates

Source: the authors' own calculations.

viewed as the indicator of a downward realignment of the exchange rate. No surprise in the improvement in the current account being associated with strengthening of the exchange rate. Output seems to be neutral with respect to the NEER.

Depreciation of the exchange rate leads to an adjustment in the current account, but the favourable effect fades away within approximately two years (Fig. 2b). There is no support for the hypothesis of causality running from public debt to the current account; as the confidence band always includes zero, the response is not significant. This result suggests that the public sector's foreign borrowing is not responsible for Ukraine's current deficit worsening since 2010 (Fig. 1b). It seems that shocks to output have an initial positive effect on the current account, providing evidence to support the "45º rule" hypothesis, at least in the short run. Compared to the NEER, the current account is not inertial and its own shocks are fully accommodated in two quarters and after that remain very close to the zero line.

The amount of public foreign debt is increased by the exchange rate depreciation (Fig. 2c). The effect becomes statistically significant in three quarters and remains very persistent over subsequent periods. This suggests some positive association between the exchange rate and public foreign debt in the spirit of equation (1). There is weak evidence that improvement in the current account brings about a decrease in the public foreign debt (the response is negative but not statistically significant). For Ukraine, it is not expected that the output growth would contribute to a decrease in the public foreign debt.

Finally, there is some support for there being a restrictionary effect of exchange rate depreciation on impact. The negative response of output to shocks in the NEER is significant in only one period and then gradually weakens over time, so that the long-run neutrality of output in respect to the exchange rate is attained in about a year. Output is stimulated by the current account surplus, so there is a virtuous circle of two-way causality between these two macroeconomic indicators. While the "GDP $\Rightarrow$ current account" causality is rather short-lived, an opposite "current account $\Rightarrow$ GDP" causality seems to be more persistent. It suggests that a significant worsening of the current account over the 2011–2013 period has exerted a serious downward pressure on Ukraine's GDP. As hypothesised, the public foreign debt accumulation stimulates output on impact (the response is significant in only one period), but this effect is gradually reversed.

A comparison of the impulse response functions obtained by the VAR and SVAR models is presented in Fig. 3. Among the determinants of the NEER, estimates of the SVAR model demonstrate a stronger reaction of the exchange rate to developments in the current account and public foreign debt. Also, a short-lived appreciating effect of the output becomes stronger. Accounting for a contemporaneous link to output (equation (6)), the stimulating effect of the

exchange rate depreciation on the current account is attenuated. Under imposed structural restrictions, there is a much stronger inverse relationship between the public foreign debt and the current account. As expected, the output effect in the fashion of the "45º rule" becomes much stronger on impact. The choice between SVAR and VAR models does not matter much for determining the public foreign debt response to the exchange rate or, to a lesser extent, to the current account. However, there are different patterns in reaction to output, though both impulse responses lack statistical significance. According to the SVAR estimates, there is a more gradual weakening of the initial contractionary effect of the exchange rate depreciation on output. Also, the reaction of output to the current account and public foreign debt is somewhat stronger if structural restrictions are imposed.

Table 1. Forecast Error Variance Decomposition

Impulse	Response to	Forecast horizon				
		3	6	9	12	16
Nominal effective exchange rate (NEER)	NEER	93	90	87	86	84
	CA	2	4	4	4	4
	DEBT	3	6	7	8	9
	Y	1	1	1	2	3
Current account (CA)	NEER	2	8	9	9	9
	CA	96	86	81	79	77
	DEBT	1	5	8	9	10
	Y	1	1	2	3	5
Public foreign debt (DEBT)	NEER	0	7	18	27	36
	CA	2	2	2	3	4
	DEBT	97	90	77	67	59
	Y	0	2	2	2	2
Output (Y)	NEER	3	2	2	2	2
	CA	0	1	1	2	2
	DEBT	2	2	4	7	10
	Y	95	95	93	90	86

Source: the authors' own calculations.

Table 1 reports the portion of the forecast error variance that is attributable to innovations in the NEER, current account, public foreign debt and output. Observe that the NEER is driven mostly by its own shocks, with the share of public foreign debt liabilities not lower than 10%. The NEER and public foreign debt account

for 2–9 and 1–10% of the variation in Ukraine's current account, respectively; the share of output is rather marginal. Besides its own shocks, the NEER seems to be an important driving factor of the public foreign debt, explaining up to 36% of the variation. Neither the exchange rate nor the current account account for much of the variation in the output. Nor is the share of the public foreign debt, ranging between 2 and 10%, a very significant value.

In sum, it is possible to argue that the NEER, current account and output are driven mainly by their own shocks. As indicated by the variance decompositions, only the public foreign debt is dependent on other endogenous variables, namely the nominal exchange rate. Despite suggestions of the impulse response functions (Fig. 2), there is no evidence that the exchange rate explains changes in the current account or that the current account is a significant factor behind the accumulation of the public foreign debt. Results also suggest that an initial expansionary effect of the public foreign debt on output is of marginal importance, but the role of debt increases with time, in line with the positive response turning negative. Our results are robust to changes in the length of the data sample and the choice of industrial output as a proxy for output.

5. Concluding Remarks

According to the impulse response functions, the public foreign debt is associated with a short-lived decrease in output and nominal exchange rate depreciation. However, the share of both causal links in the variance of decomposition does not exceed 10%. On the other hand, there is a strong relationship between depreciation of the exchange rate and the accumulation of public foreign debt that is supported by either impulse response or variance decomposition (changes in the NEER account for up to 36% of the variation in public foreign debt at a 16-quarter horizon). Impulse response functions indicate that exchange rate depreciation is likely to improve the current account balance, while the latter leads to the appreciation of the former, but the two-way causality of this kind does not look strong enough regarding variance decompositions. The same conclusion does hold in respect to the two-way relationship between the current account and output. Although there is some evidence of the "45° rule" effect in the current account, and while the reverse pro-growth causality is observed as well, both relationships are characterised by low weights in the variance decomposition.

While there is no reason to associate a steep worsening of Ukraine's current account over the 2011–2013 period with accumulation of public foreign debt, there is little doubt that such developments have created preconditions for a large exchange rate depreciation since the beginning of 2014. On the other hand, this

outcome is not likely to be an instrumental tool of restoring macroeconomic equilibrium. Although weakening of the currency has a favourable impact on the current account balance, at least in the short run, it is likely to aggravate the problem of public foreign debt from a longer perspective. Also, the exchange rate depreciation is likely to have a contractionary effect on the output in the short run, while being neutral in respect to it at all horizons.

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Publiczny dług zagraniczny i wzrost gospodarczy na Ukrainie
(Streszczenie)

Szybka akumulacja zagranicznego długu publicznego Ukrainy w ostatnich kilku latach miała na celu wprowadzenie polityki stabilizacyjnej po głębokiej recesji wywoła-nej kryzysem finansowym z lat 2008 i 2009 i zbyt wolnym ożywieniem gospodarczym z okresu pokryzysowego. Jednak to właśnie zbyt wysoki poziom zagranicznego długu publicznego wymienia się często jako główny powód trudności makroekonomicznych Ukrainy w ostatnich latach.

Na podstawie danych kwartalnych z lat 2000–2013, z wykorzystaniem modelu SVAR, ustalono, że zagraniczny dług publiczny implikuje krótkookresowy wzrost produkcji, który w dłuższym czasie zmienia jednak swój charakter na restrykcyjny, a także powo-duje nominalną deprecjację kursu walutowego oraz poprawę bilansu obrotów bieżących. Z drugiej strony zarówno nadwyżka bilansu obrotów bieżących, jak i deprecjacja kursu walutowego przyczyniają się do zwiększenia poziomu długu (wpływu czynnika dochodu nie zauważono). Warto także zauważyć, że deprecjacja kursu walutowego okazała się czynnikiem poprawy bilansu obrotów bieżących, ale jednocześnie wykazała restrykcyjne oddziaływanie na dochód narodowy. W gospodarce Ukrainy występuje korzystne sprzę-żenie zwrotne między dochodem a bilansem obrotów bieżących, co uwypukla znacze-nie równowagi zewnętrznej dla utrzymania ścieżki wzrostu gospodarczego. Otrzymane wyniki są odporne na zmiany w doborze długości próby danych oraz wykorzystanie produkcji przemysłowej jako wskaźnika dla dochodu narodowego.

Słowa kluczowe: publiczny dług zagraniczny, produkcja, kurs walutowy, bilans obrotów bieżących, Ukraina.