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DETERMINANTS OF THE CURRENT ACCOUNT BALANCE AND OUTPUT IN UKRAINE

Abstract. Using quarterly data for the 2000—2017 period, fiscal and monetary policy effects upon the real exchange rate (RER), the current account balance and output (GDP) in Ukraine are estimated with the SVAR model. It is found that the budget surplus is a factor behind both an improvement in the current account and the business cycle, arguing in favor of fiscal discipline as a stabilization tool. On the other side, there is weak evidence that the monetary hangover measured as a deviation of the monetary aggregate M2 from its equilibrium trend contributes to an improvement in the current account as well, but at the cost of significant output losses with 4 to 6 quarter lags. Similar outcomes are brought about by the RER depreciation above trend, with a simultaneous drop in output on impact combined with the current account surplus. Both money supply and RER effects could be explained by crowding out of investments in the nontradable sector by the export activities, as it is implied by the familiar dependent economy model. As there is an increase in the money supply in response to economic boom, it rejects criticisms about artificial money shortages in Ukraine. Our results provide support to the so-called «45^{o} rule» of a direct link between output and the current account, although with a significant time lag. A favourable current account effect upon output is achieved in the long run either, with an opposite restrictionary effect being observed on impact. While there is no causality running from the money supply to the budget balance, a strong link between the budget deficit and expansionary monetary stance is observed.

Everything seems to be that an increase in GDP is an effective factor in improving the current account balance over the long term, while a favorable feedback also appears with a significant time lag (in the short term, it is quite the opposite, that is, improving the current account balance worsens the cyclical GDP position). However, the decomposition of the remnants does not allow asserting the importance of causality «$ca_t \Rightarrow y_t$» та «$y_t \Rightarrow ca_t$». It is obvious that changes in the balance of the current account depend largely on the state of external markets, and the cyclical GDP dynamics ─ on internal factors, which relate primarily to the exchange rate and the monetary "sway" (the effect of the budget balance is less significant).

Keywords: fiscal and monetary policy; current account, output; real exchange rate.
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ФАКТОРИ РАХУНКУ ПОТОЧНИХ ОПЕРАЦІЙ І ДОХІД В УКРАЇНІ

Анотація. Використовуючи квартальні дані за період 2000—2017 рр., за допомогою SVAR-моделі здійснено оцінку впливу фіскальної і монетарної політики на реальний обмінний курс, рахунок поточних операцій і ВВП України. Виявлено позитивні риси профіциту бюджету як фактору покращення сальдо рахунку поточних операцій і циклічного росту ВВП, що свідчить про значення фіскальної дисципліни як засобу стабілізаційної політики. З іншого боку, грошовий «навіс» (відхилення грошового агрегату М2 від рівноважного тренду) також покращує сальдо поточних операцій, проте у цьому випадку виникає спад виробництва з часовим лагом від 4 до 5 кварталів. Таким же чином впливає зниження реального обміну курсу порівняно з рівноважним трендом: спад виробництва спостерігається одночасно з покращенням сальдо рахунку поточних операцій. Вказані ефекти грошового «навісу» та реального обміну курсу можна пояснити зменшенням інвестицій у секторі товарів внутрішньої торгівлі внаслідок збільшення експорту, як це передбачає модель «залежної» економіки. Оскільки як відповідь на пожвавлення ВВП спостерігається збільшення грошової пропозиції, це спростовує критичні зауваження відносно «штучного» обмеження грошей в економіці України. Отримані результати підтверджують так зване «правило 45», що передбачає прямий зв’язок між ВВП і сальдо рахунку поточних операцій, хоча й із істотним часовим лагом. У довгостроковій перспективі покращення рахунку поточних операцій стимулює ВВП, у той час як простежується зменшення доходу в короткостроковому періоді. Залежності сальдо бюджету від грошової пропозиції не виявлено, проте існує зворотний зв’язок між збільшення бюджетного дефіциту і грошовою пропозицією.

Ключові слова: фіскальна та монетарна політика, поточний рахунок, вихід, реальний обмінний курс.

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ФАКТОРЫ СЧЕТА ТЕКУЩИХ ОПЕРАЦИЙ И ДОХОД В УКРАИНЕ

Аннотация. Используя квартальные данные за период 2000—2017 гг., с помощью SVAR-модели оценено влияние фискальной и монетарной политики на реальный обменный курс, счет текущих операций и ВВП Украины. Выявлено положительные черты профицита бюджета как фактора улучшения сальдо счета текущих операций и циклического роста ВВП, что свидетельствует в пользу фискальной дисциплины как средства стабилизационной политики. С другой стороны, денежный «навес» (отклонение денежного агрегата М2 от равновесного тренда) также улучшает сальдо счета текущих операций, но в этом случае возникает спад производства с часовым лагом от 4 до 5 кварталов. Подобным образом влияет снижение реального обменного курса по сравнению з равновесным трендом: спад производства наблюдается одновременно з улучшением сальдо счета текущих операций. Указанные эффекты денежного «навеса» и реального обменного курса можно объяснить уменьшением инвестиций в секторе товаров внутренней торговли вследствие увеличения экспорта, как это предполагает модель «зависимой» экономики. Поскольку в ответ на оживление ВВП наблюдается увеличение денежного предложения, это опровергает критические замечания относительно «искусственного» ограничения денег в экономике Украины. Полученные результаты подтверждают так называемое «правило 45», которое предполагает прямую связь между ВВП и сальдо счета текущих операций, хотя и с существенным временным лагом. В долгосрочной перспективе улучшение счета текущих операций стимулирует ВВП, в то время как прослеживается уменьшение дохода в краткосрочном периоде. Зависимости сальдо бюджета от денежного предложения не обнаружено, однако существует обратная связь между увеличением бюджетного дефицита и денежным предложением.

Ключевые слова: фискальная и монетарная политика, текущий счет, выход, реальный обменный курс.

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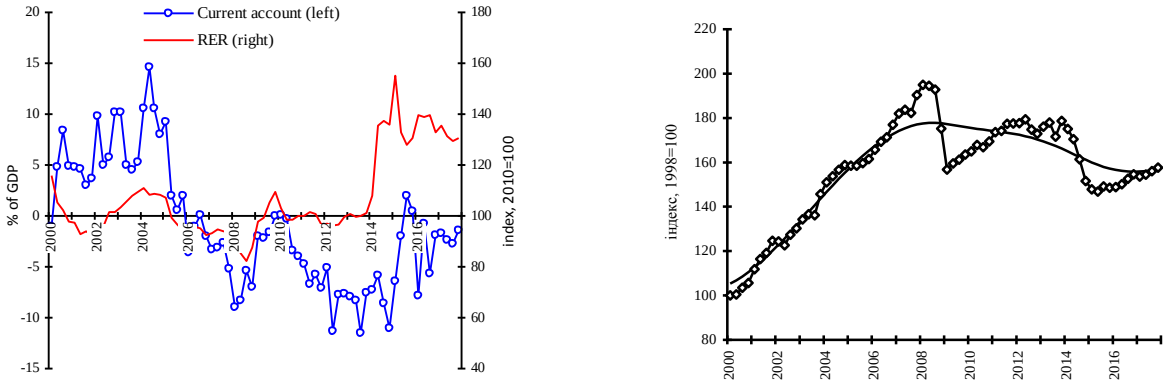
Introduction. One of the most significant features of the Ukrainian economy of 2014—2017 was the lack of an expected transition to the current account surplus after a considerable devaluation of the hryvna in nominal and real terms (*Fig. 1*). In fact, real (taking into account inflation) hryvna exchange rate has decreased by 30—40 % compared to the average value of 2010—2013, but the balance of export-import of goods and services remains negative, which does not allow to increase the currency reserves of the National Bank of Ukraine and creates the basis for expectations of further depreciation of hryvna. At the same time, the obvious revaluation of the hryvna could have become a factor of the deepening of the decline in production, which has worsened the payment balance due to a decrease in supply of goods for export. In this context, it is

interesting to compare the effectiveness of fiscal and monetary policy as instrumental tools of economic growth (GDP) and the balance-of-payments (BOP) equilibrium in narrow sense (the current account balance), as well as to reveal the nature of the interaction between the two most important macroeconomic indicators.

The purpose of the work is to study the impact of fiscal and monetary policy, as well as changes in the real exchange rate of the current account balance and GDP growth (taking into account the mutual relationship between two indicators). This is important for determining the economic policy that can provide simultaneous internal (GDP) and external equilibriums (the current account balance).



a) the current account balance and RER; b) GDP;

Fig. 1. Ukraine: selected macroeconomic indicators, 2000—2017
Note: equilibrium trend for GDP is obtained with the Hodrick–Prescott filter.
Source: IMF (2018), NBU (2018)

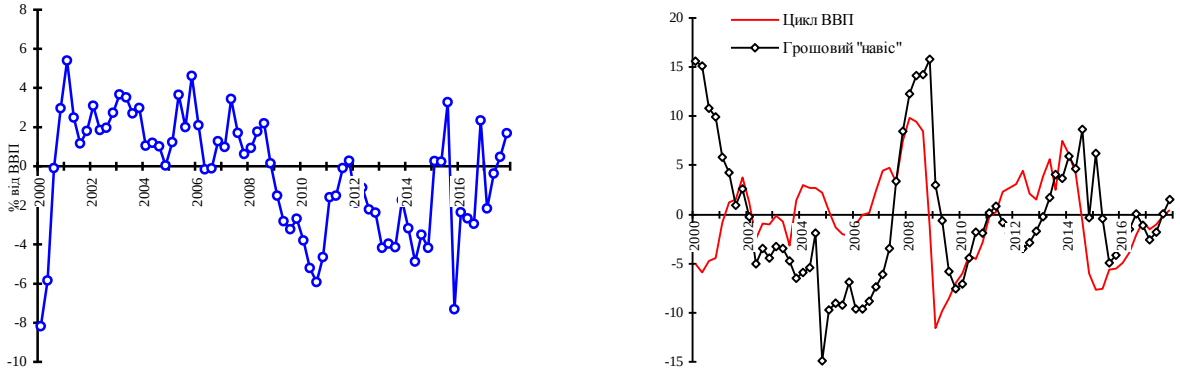
Review of relevant literature. Mostly domestic researchers recognize the effectiveness of devaluation of the hryvna as a factor of improving the balance of export and import of goods and services in the crisis period of 2014—2016 [1, p. 10—12], albeit at the expense of a significant loss of hryvna deposits and restrictions on bank lending [2, p. 136—146]. At the same time, there are assumptions that since the beginning of 2016 the hryvna devaluation has lost its positive impact on the volume of export, and one of the reasons may be a reduction of investment and a decrease in labor productivity [3, c. 48—54]. In general, a significant devaluation of the monetary unit may not have the expected stimulant impact on export [4], while there will be a rapid decline in imports and production [5, p. 49—64]. The excellent impact of the exchange rate on income can attributed to such factors as business activity cycle, capital movements, dollarization of debt obligations, openness to foreign trade, revaluation of the real exchange rate, economic situation in trading partner countries [6, p. 680—708].

An alternative to devaluation of the hryvna may be the transition to the budget surplus [7], as it was in 2000—2001, but such a policy may reduce aggregate demand without the expected improvement of the export-import balance. Indeed, one study does not show the favourable impact of high tax revenues on the trade balance, which denies the logic of so-called fiscal devaluation [8]. However, earlier studies show a simultaneous improvement in the current account balance and the acceleration of economic growth due to the budget surplus [9], which corresponds to the dependencies for low-income countries [10, p. 47—76] or the countries with high indebtedness [11, p. 502—510]. Less attention was paid to the dependency of the current account on the supply of money supply. In one study for Ukraine, the volume of lending increases both export and import [9]. Foreign studies mainly show an inverse relation between the money supply and the current account balance [12, p. 408—416; 13, p. 451—462; 14].

The popular explanation of the low efficiency of the domestic export sector is the predominance of primary components [15, p. 38—42] and structural problems such as backlog by

the level of development of the innovation sector, trade restrictions, bureaucratic procedures, etc [16, с. 80–85]. This provides for the direct causality of «GDP»⇒current account», which denies the standard assumption of open economy models of the inverse relationship between the two indicators. In general, the nature of the interaction between income (GDP) and the current account balance can significantly modify the impact of economic policy instruments on both indicators.

Empirical results. For empirical study, quarterly tine series for the period 2000—2017 of the budget and current account balances (% of GDP) and the real effective exchange rate, monetary aggregate M2 and GDP (all three indicators are in deviations from equilibrium trend, in %) are used, as provided by the IMF and NBU databases. Visually the link between the GDP cycle and excess money supply, which can be considered an effective indicator of excessive supply of money supply, has been traced quite definitely since the mid-2000s, when the process of re-monetization of the Ukrainian economy was completed (*Fig. 2*). Similarly, the deterioration of the budget balance in 2008—2013 could be one of the reasons for the unfavourable dynamics of the current account balance (*Fig. 1*), although the reverse causality between the two indicators should not be excluded. Over the past three years the budget balance is rather unstable. Although it was possible to overcome the stable budget deficit of 2009—2010 and 2012—2014, there is a lack of convincing improvement of fiscal indicators, as it was in 2001—2008.



a) the budget balance (% of GDP); b) business cycle and excess money supply (%)

Fig. 2. Ukraine: the budget balance and excess money supply, 2000—2017
Source: personal calculations using IMF (2018) and NBU (2018) databases

As both the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests indicate that our variables are stationary, it allows the use of structural vector autoregression (SVAR) model, with no need for error correction procedure. Such an approach has advantages in comparison to a canonical structural regression model, as it is difficult to specify properly complicated relationships between several interrelated variables. Compared with a general class of VAR models, specification of a SVAR model allows for imposition of specific structural restrictions upon individual functional relationships in accordance with economic theory.

Assuming the vector of moving average in the form of $A_0 X_t = A(L) X_{t-1} + B\varepsilon_t$, the VAR model presents as follows:

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

where X_t is the $N \times 1$ vector of endogenous variables, containing the budget balance (bd_t), excessive money supply ($m2c_t$), deviations of the RER from its equilibrium trend ($rerc_t$), the current account balance (ca_t) and the business cycle (yc_t). Matrix A_0 accounts for relationships between endogenous variables in the current period, $A(L)$ is the polynomial covariance matrix, where L is the lag operator, $C(L)$ is the matrix of lagged relationships between endogenous variables, ε_t is the vector of normally distributed uncorrelated serial stochastic shocks with dimension of $k \times 1$, u_t is the vector

of normally distributed shocks with dimension of $N \times 1$, which are not serially correlated, but can be correlated in the current period.

For empirical estimations, the following SVAR model is chosen (in current shocks):

$$bd = u_1, \quad (2)$$

$$m2c = a_1 bd + u_2, \quad (3)$$

$$rerc = b_1 bd + b_2 m2c + u_3 + b_5 y, \quad (4)$$

$$ca = c_1 bd + c_2 m2c + c_3 rerc + u_4, \quad (5)$$

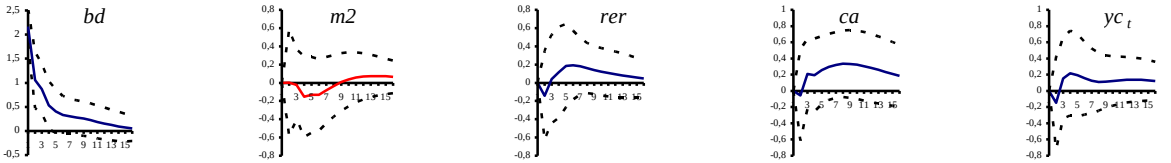
$$y = d_2 m2c + d_3 rerc + d_4 ca + u_5. \quad (6)$$

It is assumed that the budget balance is independent of other endogenous variables in the current period (equation (2)), being a factor behind money supply developments (equation (3)). It is natural to suppose that there is an inverse relationship between the budget balance and money supply ($a_1 < 0$). Deviations of the RER from its equilibrium trend are dependent on the fiscal-monetary mix and business cycle (equation (4)). As money supply developments reflect changes in both money supply and demand for money, accounting for the business cycle reflects realities of the dollarized economy, when a substantial amount of transactions is conducted with foreign currency. While the excessive money supply contributes to the RER appreciation ($b_2 < 0$) and a higher GDP is of an opposite impact ($b_5 > 0$), the effect of the budget balance upon RER is dependent on the structural features of the economy ($b_1 <> 0$) (Shevchuk, 2008).

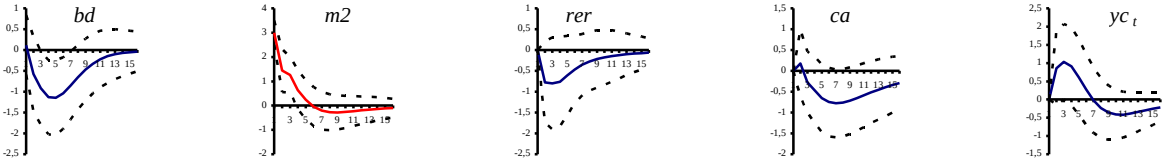
The budget surplus and RER depreciation are likely to improve the current account ($c_1, c_3 > 0$) (equation (5)). Effects of money supply are rather ambiguous ($c_2 <> 0$). While monetary models imply worsening of the current account by an increase in the money supply, an opposite effect can be achieved if allow for the aggregate supply effects of money in an economy with financial constraints. In this case, an increase in the money supply contributes to production of goods for exports or import substitutes thus improving the current account balance.

According to the assumptions of the dependent economy model with tradable and nontradable goods, there is a possibility of asymmetrical money supply effects upon the current account and output (GDP) due to specific features of the real money supply and RER effects upon production on domestic and external markets (Trachanas, 2013). Generally, it is not ruled out that depreciation of the RER brings about a decrease in output ($d_3 < 0$). Although an improvement in the current account is likely to be expansionary in most of cases, it is possible that a crowding out of financial and other resources from inward-oriented branches of the economy in favor of the exporting sector can be of an opposite restrictionary effect.

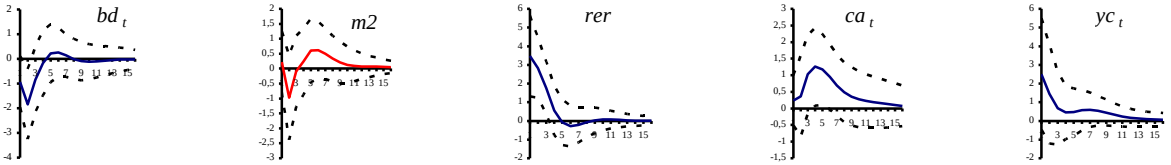
For obtaining of the impulse response functions (*Fig. 3*) and forecast error variance decomposition (FEVD) of residuals (*Table*), a SVAR model with two lags is chosen, as suggested by the Akaike and Schwartz criteria. Analysis of the estimates argues in favour of the budget balance surplus for the Ukraine's economy, as it contributes to a simultaneous improvement in the current account and GDP. At the same time, the budget surplus is associated with a decrease in the excessive money supply and strengthening of the exchange rate (in real terms) in the short run. However, the fraction of bd_t in the FEVD of business cycle is rather low (no more than 7%), gradually increasing from 12 to 20% in the FEVD of $m2c_t$. Such a result suggests about a significant monetization of budget deficits in Ukraine over the period from 2000 to 2017. Changes in the budget balance account for 19 % of FEVD for the RER and current account. On the other side, the budget balance improves as a result of improvements in both current account and GDP (to less extent), but the fraction of both factors in FEVD of bdt is small enough.



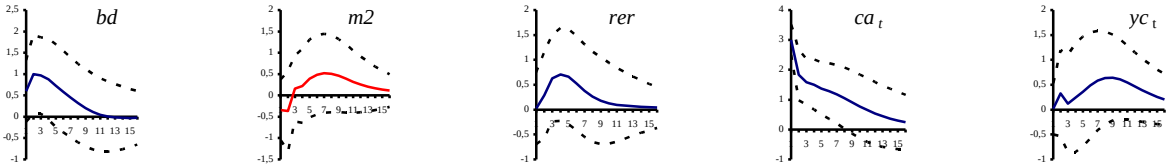
a) response of the budget balance (bd_t);



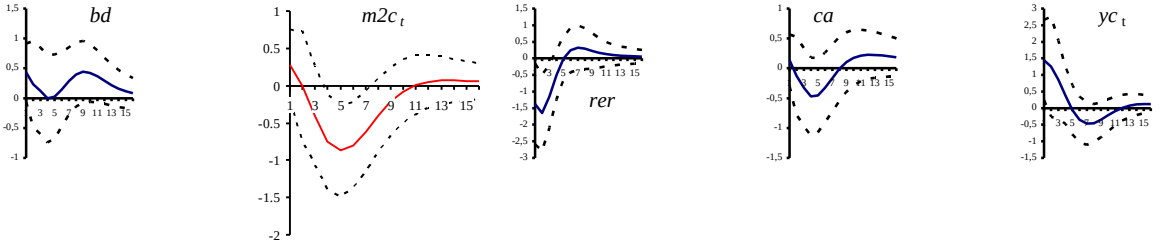
b) response of the excessive money supply ($m2c_t$);



c) response of the RER ($rerc_t$);



d) response of the current account (ca_t);



e) response of the business cycle GDP (yc_t)

Fig. 3. Impulse response functions for endogenous variables

Source: personal calculations

Table 1.

Forecast error variance decomposition of SVAR model

Responses of	Innovations in	Forecast horizons			
		4	8	12	16
Budget balance (bd_t)	bd_t	97	89	84	82
	$m2c_t$	0	1	1	1
	$rerc_t$	0	2	2	3
	ca_t	1	5	9	11
	yc_t	1	2	2	3
Excesive money supply ($m2c_t$)	bd_t	12	22	21	20
	$m2c_t$	64	48	44	43
	$rerc_t$	9	9	9	9
	ca_t	2	9	13	15
	yc_t	13	11	12	13
Real exchange rate ($rerc_t$)	bd_t	12	11	11	11
	$m2c_t$	3	5	5	5
	$rerc_t$	57	50	49	49
	ca_t	7	12	13	13
	y_t	22	22	22	22
Current account (ca_t)	bd_t	14	13	12	12
	$m2c_t$	2	4	5	5
	$rerc_t$	5	6	6	5
	ca_t	79	73	70	70
	yc_t	1	4	7	8
Business cycle GDP (yc_t)	bd_t	2	3	7	7
	$m2c_t$	7	18	17	17
	$rerc_t$	51	42	40	39
	ca_t	3	5	5	6
	yc_t	37	33	32	31

Source: personal calculations

The pattern of money supply effects does not contradict assumptions of the dependent economy model under conditions of crowding out of inward-oriented branches of the economy by export-oriented activities. There are no grounds for frequent claims that «insufficient» money supply is an obstacle for economic growth in Ukraine. A depreciation on the RER on impact is another favourable outcome of a decrease in the excessive money supply. Money supply does not affect the budget balance, as suggested by both impulse response function and FEVD. Compared with the impact of budget balance, the fraction of $m2c_t$ in changes of the current account is smaller (no more than 5%), but gradually increases in FEVD of GDP to 17—18%. As the National Bank of Ukraine reacts to higher output by an increase in the money supply above equilibrium trend, it rejects the argument of the so-called monetary «famine» in the Ukraine's economy (fraction of y_t in FEVD of $m2c_t$ approaches 13 %). Also, there is support for sterilization of the balance-of-payment monetary effects (the fraction of ca_t in FEVD of $m2c_t$ gradually increases to 15 %) and restrictionary monetary stance in response to exchange rate depreciation (however, the fraction of $rerc_t$ in FEVD of $m2c_t$ does not exceed 9 %).

A depreciation of the RER results in a short-lived improvement of the current account, but with a simultaneous significant decrease in GDP. In the former case the fraction of $rerc_t$ in FEVD of ca_t is small (up to 6%), but it is different in the latter case. Changes in the RER determine 50% of FEVD of yc_t on the 4 quarters horizon, remaining significant even after 16 quarters (30%). It means that a steep depreciation of the *hryvna* can be considered as the single most important factor behind a deep fall in output in 2009 and again in 2014—2016. The impact of RER upon the budget balance and money supply is marginal.

One of unusual results is that an improvement in the current account is associated with depreciation of the RER (the fraction of ca_t in FEVD of $rerc_t$ increases to 13 %). This kind of outcome can be explained in part by sterilizati on of the balance-of-payments monetary effects, but it is either convincing that it is the result of deliberate efforts to avoid an appreciation of the *hryvna* following the improvement in the current account. Depreciation of the RER resulting from an increase in output is consistent with the consequences of higher demand for money, with a high fraction of y_t in FEVD of $rerc_t$ (22 %) further supporting the importance of this causal link. As the combined share of changes in fiscal and monetary policies does not exceed 16% of FEVD of $rerc_t$, it does not contradict the logic of *de facto* fixed exchange rate practiced by monetary authorities since 2000 till the beginning of 2014. If account for changes in output and current account, the share of endogenous factors in FEVD of $rerc_t$ increases, but even in this case changes in the RER are determined by its own dynamics up to 50 %.

All said above looks like an increase in GDP is an important factor behind improvements in the current account in the long run, while a favourable reverse causality «$ca_t \Rightarrow y_t$» is of the long run nature either (on the contrary, the current account surplus is worsening the output in the short run), However, both «$ca_t \Rightarrow y_t$» and «$y_t \Rightarrow ca_t$» causal relationships are rather weak according to FEVD. It is clear that changes in the current account are influenced mainly by external factors, and those of GDP being dependent predominantly on domestic factors, exchange rate and money supply in the first place (fiscal policy effects are less important). .

Conclusions. The obtained results confirm the importance of fiscal discipline as a factor of improving the current account balance and GDP growth in Ukraine (the reverse favourable causality is traced at a statistically significant level only for the current account). At the same time, there are preconditions for strengthening the hryvna, which seems an important factor of increasing GDP, at least in the short term. Concomitant short-term deterioration of the current account balance does not seem to be a significant problem in terms of the direct dependence of this indicator on GDP. There are no signs of stimulating GDP by growing supply of the money supply, as many domestic experts say. The revealed direct relationship between the excess money supply and the current account can be the consequence of concentration of financial resources in the export sector, which has a negative impact on the rest of fields. The National Bank of Ukraine responds to the increase in GDP by the increase in the supply of the money supply, while we have an opposite reaction to improving the current account balance. Both dependencies seem to be standard and consistent from the view of the macroeconomic equilibrium, but some concern is monetization of the budget deficit.

Література

1. Косова Т. Д. Валютна політика та структура платіжного балансу України: діалектика взаємозв'язку / Т. Д. Косова, І. О. Стеблянко // Економіка та держава. — 2016. — № 2. —С. 9—12.
2. Fedirko O. Strategic priorities of modernization of Ukrainian economy in after-crisis period / M. G. Wozniak (ed.) // Nierównosci spoleczne a wzrost gospodarczy. Modernizacja dla spojnosci spoleczno-ekonomicznej w czasach kryzysu [Income inequality and economic growth. Modernization for economic and social cohesion during the crisis]. — Rzeszow : University of Rzeszow, 2012. — Zeszyt № 26. — P. 136—146.
3. Баронін А. Вплив девальвації на національний експорт: системні зміни в сучасному вимірі / А. Баронін ; наук. ред. В. Юрчишина // Сучасна валютна політика та особливості її реалізації в Україні. — Київ : Заповіт, 2016. — С. 48—54.
4. Alessandria G. Export Dynamics in Large Devaluations [Electronic resource] / G. Alessandria // International Finance Discussion Papers. — Washington : Board of Governors of the Federal Reserve System, 2013. — № 1087. — Available at : http://www.federalreserve.gov/ pubs/ifdp/2013/1087/default.htm.
5. Bahmani-Oskooee M. Are Devaluations Contractionary? Evidence from Panel Cointegration. M. Bahmani-Oskooee // Economic Issues. — 2006. — Vol. 11. — № 1. — P. 49—64.
6. Bussière M. Chronicle of large currency devaluations: Re-examining the effects on output / M. Bussière // Journal of International Money and Finance. — 2012. — Vol. 31. — № 4. — P. 680—708. doi: http://doi.org/ 10.1016/j.jimonfin.2012.01.008.
7. Dabrowski M. The harsh reality of Ukraine's fiscal arithmetic [Electronic resource] / M. Dabrowski // Bruegel Policy Contribution. — Brussels : Bruegel Institute, 2015. — № 7. — Available at : http://bruegel.org/wp-content/uploads/imported/publications/pc_2015_07_Ukraine-.pdf.
8. Vdovychenko A. The Ukrainian case of fiscal devaluation in small open economies [Electronic resource] / A. Vdovychenko // MPRA Paper. — Munich : Munich Personal RePEc Archive, 2014. — № 69329. — Retrieved from https://mpra.ub.uni-muenchen.de/69329/1/MPRA_paper_69329.pdf.
9. Шевчук В. Платіжний баланс, економічне зростання і стабілізаційна політика / В. Шевчук. — Львів : Кальварія, 2008. — 734 с.
10. Chinn M. Medium-term determinants of current accounts in industrial and developing countries: an empirical exploration / M. Chinn // Journal of International Economics. — 2003. — Vol. 59. — № 1. — P. 47—76. doi: http://doi.org/10.1016/S0022-1996(02)00089-2.
11. Trachanas E. The dynamic linkages of fiscal and current account deficits: New evidence from five highly indebted European countries accounting for regime shifts and asymmetries / E. Trachanas // Economic Modelling. — 2013. — Vol. 31 (C). —

P. 502—510. doi: http://doi.org/10.1016/j.econmod. 2012.12.026.

12. Erdem E. Impact of domestic credits on the current account balance: a panel ARDL analysis for 15 OECD countries / E. Erdem // Actual Problems of Economics. — 2014. — Vol. 151. — № 1. — P. 408—416.

13. Gosse J.-P. Long-run determinants of current accounts in OECD countries: Lessons for intra-European imbalances / J.-P. Gosse // Economic Modelling. — 2014. — Vol. 38 (C). — P. 451–462. doi: http://doi.org /10.1016/j.econmod.2014.01.008.

14. Unger R. Asymmetric Credit Growth and Current Account Imbalances in the Euro Area / R. Unger // FIW Working Paper. — Wien : Forschungsschwerpunkt Internationale Wirtschaft, 2016. — № 166. — Available at : http://www.fiw.ac.at/fileadmin/Documents/Publikationen/Working_Paper /N_166_Unger.pdf.

15. Колодій С. Ю. Напрямки підвищення експортного потенціалу під час формування нової моделі соціально-економічного розвитку України / С. Ю. Колодій, Л. О. Гаряга, Л. О. Руденко // Економічний часопис-XXI. — 2016. — № 162. — С. 38—42.

16. Мулякова-Бочі А. К. Концепція удосконалення платіжного балансу в умовах економічного розвитку / А. К. Мулякова-Бочі // Актуальні проблеми економіки. — 2012. — № 7. — С. 80—85.

17. Шевчук В. О. Макроекономічні наслідки кредитного буму в Україні // Соціально-економічні проблеми сучасного періоду розвитку України. Фінансовий ринок: глобалізація та євроінтеграція. — Львів, 2011. — Вип. 1 (69). — С. 94—102.

18. The IMF [Electronic resource] // Official web-site. — 2018. — Available at : http://www.imf.org.

19. Національний банк України [Електронний ресурс] // Офіційний сайт. — Available at : http://www.bank.gov.ua.

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References

1. Kosova, T. (2016). Valiutna polityka ta struktura platizhnoho balansu Ukrainy: dialektyka vzaiemozviazku [Currency Policy and Balance of Payments of Ukraine: The Dialectic of Relationship]. *Ekonomika ta derzhava — Economy and State, 2*, 9—12 [in Ukrainian].

2. Fedirko, O., & Wozniak, M. G. (Ed.). (2012). Strategic priorities of modernization of Ukrainian economy in after-crisis period. Nierównosci spoleczne a wzrost gospodarczy. Modernizacja dla spojnosci spoleczno-ekonomicznej w czasach kryzysu [Income inequality and economic growth. Modernization for economic and social cohesion during the crisis]. Zeszyt 26, 136—146. Rzeszow: University of Rzeszow [in Polish].

3. Baronin, A., & Yurchyshyn, V. (Ed.). (2016). *Vplyv devalvatsii na natsionalnyi eksport: systemni zminy v suchasnomu vymiri [Devaluation effects upon national exports: systemic changes in the national dimension]*. Suchasna valiutna polityka ta osoblyvosti yii realizatsii v Ukraini [Modern exchange rate policy and its implementation in Ukraine]. Kyiv: Zapovit [in Ukrainian].

4. Alessandria, G. (2013). Export Dynamics in Large Devaluations. *International Finance Discussion Papers, 1087*. Washington: Board of Governors of the Federal Reserve System. Retrieved from http://www.federalreserve.gov/pubs/ifdp/2013/1087/default.htm.

5. Bahmani-Oskooee, M. (2006) Are Devaluations Contractionary? Evidence from Panel Cointegration. *Economic Issues, 11*, 1, 49—64.

6. Bussière, M. (2012). Chronicle of large currency devaluations: Re-examining the effects on output. *Journal of International Money and Finance, 31*, 4, 680—708. https://doi.org/10.1016/j.jimonfin.2012.01.008.

7. Dabrowski, M. (2015). The harsh reality of Ukraine's fiscal arithmetic. *Bruegel Policy Contribution, 7*. Brussels: Bruegel Institute. Retrieved from http://bruegel.org/wp-content/uploads/imported/publications/pc_2015_07_Ukraine-.pdf.

8. Vdovychenko, A. (2014). The Ukrainian case of fiscal devaluation in small open economies. *MPRA Paper, 69329*. Munich: Munich Personal RePEc Archive. Retrieved from https://mpra.ub.uni-muenchen.de/69329/1/ MPRA_paper_69329.pdf.

9. Shevchuk, V. (2008). *Platizhnyi balans, ekonomichne zrostannia i stabilizatsiina polityka [Balance of payments, economic growth and stabilization policy]*. Lviv: Kalvaria [in Ukrainian].

10. Chinn, M. (2003). Medium-term determinants of current accounts in industrial and developing countries: an empirical exploration. *Journal of International Economics, 59*, 1, 47—76. https://doi.org/10.1016/S0022-1996(02)00089-2.

11. Trachanas, E. (2013). The dynamic linkages of fiscal and current account deficits: New evidence from five highly indebted European countries accounting for regime shifts and asymmetries. *Economic Modelling, 31* (C), 502—510. doi: https://doi.org/10.1016/j.econmod.2012.12.026.

12. Erdem, E. (2014). Impact of domestic credits on the current account balance: a panel ARDL analysis for 15 OECD countries. *Actual Problems of Economics, 151*, 1, 408—416.

13. Gosse, J.-P. (2014). Long-run determinants of current accounts in OECD countries: Lessons for intra-European imbalances. *Economic Modelling, 38* (C), 451—462. https://doi.org /10.1016/j.econmod.2014.01.008.

14. Unger, R. (2016). Asymmetric Credit Growth and Current Account Imbalances in the Euro Area. *FIW Working Paper, 166*. Wien: Forschungsschwerpunkt Internationale Wirtschaft. Retrieved from http://www.fiw.ac.at/fileadmin/Documents/Publikationen/Working_Paper /N_166_Unger.pdf.

15. Kolodii, S., Hariaha, Y., & Rudenko, M. (2016). Napriamky pidvyshchennia eksportnoho potentsialu pid chas formuvannia novoi modeli sotsialno-ekonomichnoho rozvytku Ukrainy [Directions of increasing export potential during the formation of a new model of socio-economic development of Ukraine]. *Ekonomichnyi chasopys-XXI — Economic Annals-XXI, 11—12*, 162, 38—42 [in Ukrainian].

16. Muliakova-Bochi, A. (2012). Kontseptsiia udoskonalennia platizhnoho balansu v umovakh ekonomichnoho rozvytku [The concept of balance of payments improvement in the conditions of economic development]. *Aktualni problemy ekonomiky — Actual Problems of Economy, 7*, 133, 80—85 [in Ukrainian].

17. Shevchuk, V., & Boyko, Y. I. (Ed.). (2011). Makroekonomichni naslidky kredytnoho bumu v Ukraini [Macroeconomic consequences of the credit boom in Ukraine]. *Sotsialnoekonomichni problemy suchasnoho periodu rozvytku Ukrainy. Finansovyi rynok: hlobalizatsiia ta yevro intehratsiia — Social and economic problems of the modern period of development of Ukraine. Financial market: globalization and euro integration, 94—104*. Lviv [in Ukrainian].

18. The IMF. (2018). Official web-site. *www.imf.org*. Retrieved from http://www.imf.org.

19. Natsionalnyi bank Ukrainy [The National Bank of Ukraine]. (n. d.). Ofitsiinyi sait [Official web-site]. *www.bank.gov.ua*. Retrieved from http://www.bank.gov.ua [in Ukrainian].

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