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Vitaliy Panteleev

V. N. Karazin Kharkiv National University

Kharkiv, Ukraine

DO IMPERFECT FISCAL POLICIES LEAD TO UNEVEN YEAR-END SPENDING? THE COMPARISON OF UKRAINE & CANADA

Abstract. Many organizations have budgets that expire at the end of the year and they may face incentives to rush to spend resources on projects at the year-end. We are testing this hypothesis using data from Ukraine's and Canada's state budgets for 2013-2017. Budget expenditures for the last quarter of the fiscal year exceed the average and for the first quarter they are lower than they should be on average.

Jel Classification System: E62, H30, H60

Keywords: fiscal policy, spending, revenues, budget, state budget, quarterly spending, quarterly revenues, monthly revenues, monthly spending, Canada, Ukraine, budget execution.

Introduction. It is known that in Ukraine a fiscal policy became a state policy only in the 90s. Until that it was a part of the centralized fiscal policy of the USSR.

After the declaration of independence, Ukraine started to introduce the scientific substantiation and practical implementation of decisions and measures aimed at improving the performance of a fiscal policy, so it is important to study the nature of this policy in order to use the positive experience of the developed countries.

In the researches on the functioning of the Ukrainian budget policy based on the example of foreign countries, the significant role is assigned to such scholars as Makarenko J. ²¹⁰, Grady P. ²¹¹, Liebman J., Mahoney N. ²¹²,

²¹⁰ Makarenko J. Federal fiscal policy in Canada: history, operations and trends of global recession [Electronic resource] / Jay Makarenko. - 2009. – Available at: https://www.mapleleafweb.com/features/federal-fiscal-policy-canada-history-operation-and-trends-global-recession

²¹¹ Grady P. Budgetary Policy [Electronic Resource] / P. Grady, G. Mcintosh. - 2015. – Available at: https://www.thecanadianencyclopedia.ca/en/article/fiscal-policy.



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McPherson M. ²¹³, Maksimova O. I. ²¹⁴, Dlugopolsky O.V. ²¹⁵, Artus M.M. ²¹⁶, Frolov S.M., Sklyar I. D. ²¹⁷et al.

However, the complexity and ever-growing importance of the fiscal policy implementation have determined the purpose of this article that is to produce the general comparative characteristics of the fiscal policy activities of the two countries concerning the state budget spending.

The important issue in the implementation of fiscal policy measures is the problem of the equal distribution of the budget spending during the budget year, including those at the end of the budget year.

The budget year in Ukraine coincides with the calendar year and lasts from January 1st to December 31th, in Canada the budget year lasts from April 1st to March 31th, in the United States the budget year lasts from October 1st to September 30th. Many factors in Ukraine and Canada, as well as in other countries, affect uneven distribution of the state budget spending during the year and the lower spending in the first quarter and the increased spending in the fourth quarter of the budget year and especially, in December, the last month of the budget year.

Various factors influence the situation of uneven distribution of the state budget spending throughout the year - the legal and regulatory framework for

²¹² Liebman J. Do expiring budgets lead to wasteful year-end spending? Evidence from federal procurement [Electronic resource] / J. Liebman, N. Mahoney. – 2018. – Available at: https://www.nber.org/papers/w19481.pdf.

McPherson, Michael. 2007. "An Analysis of Year-End Spending and the Feasibility of a Carryover Incentive for Federal Agencies." Master's diss. Naval Postgraduate School. – Available at:

https://apps.dtic.mil/dtic/tr/fulltext/u2/a475973.pdf.

Maksimova O. I. The system of public administration in Canada: experience for Ukraine / O. I. Maksimova, Yu. V. Kovbasyuk. - Kyiv: NADU, 2010. - 60 p. - (Series of publications on international experience of public administration).

²¹⁵ Dlugopolsky O. V. The Experience of the USA, Canada and Japan in the Application of the Fiscal Consolidation Mechanism / O. V. Dlugolsky. // ECONOMY: realities of time. Scientific Journal. - 2013. - №4. - P. 167-173.

²¹⁶ Artus M. M. The Budget System of Ukraine / M. M. Artus, N. N. Hija. - Kyiv: European University, 2005. - 220 p.

²¹⁷ Frolov S.M. Budget Management of the Border Territories / SM Frolov, I. D. Sklyar. - Sumy: Sumy State University, 2012. – 50p.

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the execution of budget spending; connection with other parts of the budget system and other financial funds (local budgets, pension, insurance and other funds); the capabilities and functions of budget execution agencies — banks, treasuries, etc.; budget planning; organization of accounting and reporting on the budget spending; public and departmental control over budget execution; transparency of the budget process for budget execution and the ability of the public to check and evaluate the quality of budget execution by spending; the organization of state, public and departmental control over budget execution; the requirements for compliance with budget discipline and the measures of responsibility for its observance, as well as, other factors and causes.

The even execution of budget spending within the budget year favors the quality execution of spending, the full and timely financing of institutions and events, the improvement of the quality of their work, increases the quality of state execution of its functions through the budget system and creates the basis for a positive solution of social and economic issues of the state and its citizens that depend on the state budget policy, etc.

On the other hand, uneven financing of the state budget spending within the budget year can lead to a decrease in the quality of expenditure execution, untimely and incomplete financing of institutions and activities, violate the quality of state execution of its functions through the budget system, create the basis for additional accumulation of social and economic problems of the state and its citizens, etc.

The fiscal policy is the organization of the state budget process and it consists of two parts. The first is the development of the budget execution program and the second is the practical implementation of the planned activities. As will be shown below, these two sides of the budget policy do not coincide. The state budget policy has its own levers (methods); incentives and sanctions; tools and other components.

We will make an assessment of the uniform distribution of expenses throughout the year by quarters and months based on the comparison of expenses with the highest level to total expenses for the year (high) with those

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with the lowest level (low). With a uniform distribution of expenses this indicator should be equal to one.

The analysis of quarterly execution of the state budgets of Ukraine and Canada for 2013-2017 is presented in Tables 1 and 2. Each quarter of the year accounts for 25 percent of annual spending. As can be seen, for Ukraine (Table 1) the equal financing of budgetary spending is not observed for the quarters — 21 percent in the 1st quarter, 23 percent in the 2nd, 24 percent in the 3rd, and 32 percent of total spending in the 4th quarter. Thus, spending in the fourth quarter exceeded spending in the first quarter of the budget year by one and half times. The highest share of expenses in the fourth quarter was 36 percent in 2015, while the lowest share of expenses in the first quarter was 18 percent of total expenses. The same picture is observed in the execution of budget revenues, where revenues in the fourth quarter exceeded revenues in the first quarter of the fiscal year by one third.

Table 1. The analysis of the quarterly spending of the revenues and spending of Ukraine for 2013-2017 as a percentage of the total

Quarter of the budget year	Revenues			Spending		
Quarter of the budget year	Average	High	Low	Average	High	Low
1 (January - March)	22,34	24,87	20,96	20,65	22,07	18,35
2 (April- June)	24,77	27,75	22,14	23,05	24,00	21,51
3 (July -September)	24,44	26,11	23,03	24,06	25,04	22,18
4 (October-December)	28,45	33,87	26,07	32,24	35,84	29,58
Total	100,00			100,00		

Source: compiled on the basis of $\frac{1}{218}$

On the other hand, in Canada (Table 2) the uniformity of financing of budget spending by quarters is observed at a higher level - in the 1st, 2nd and 3rd quarters - 24 percent and in the 4th quarter 27 percent of total expenses. Thus, spending in the fourth quarter was 10 percent more than spending in

Implementation of the state budget of Ukraine [Electronic resource] - Available at: https://index.minfin.com.ua/finance/budget/gov/.

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the first quarter of the budget year. The highest share in the fourth quarter was 28 percent in 2014, while the lowest share of expenses in the 1st quarter was 24 percent of total expenses in 2015, 2016, 2017. When executing revenues, the revenues of the 4th quarter were more than the revenues of the 1st quarter of the fiscal year.

The analysis of the monthly execution of the state budgets of Ukraine and Canada for 2013-2017 is presented in Tables 3 and 4. Each month of the year accounts for approximately 8 1/3 percent. As can be seen, for Ukraine (Table 3) the equal financing of budget spending by months is not observed - in January, the share was 5.7 percent of total expenses, and in December - more than 14 percent.

Table 2. The analysis of the quarterly spending of the revenues and spending of Canada for 2013-2017 as a percentage of the total

Quarter of the budget year	Revenues			Spending		
Quarter of the budget year	Average	High	Low	Average	High	Low
1 (April-June)	24,82	25,00	24,45	23,91	24,27	23,63
2 (July -September)	23,28	23,55	23,04	24,28	24,97	23,45
3 (October-December)	24,65	25,06	24,12	24,52	25,07	24,15
4 (January - March)	27,25	27,96	26,52	27,29	27,72	26,95
Total	100,00			100,00		

Source: compiled on the basis of ²¹⁹

Thus, spending in the last month of the year exceeded spending in the first month of the budget year by two and half times. The highest share of expenses in December was 17 percent in 2015, and the lowest share of expenses in January was 5 percent. When spending is observed, a smoothed uniformity is observed - the revenues of the last month of the year exceeded the revenues in the first month of the budget year by 65 percent. It is not hard to imagine the burden which is placed on a staff of budget organizations who

²¹⁹ Fiscal Monitor [Electronic resource] – Available at: https://fin.gc.ca/pub/fm-rf-indexeng.asp.

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receive funds and on a staff of state budget bodies allocating and financing these expenses at the end of the budget year - and this is despite the fact that at the beginning of the budget year financing amounted to only 1/3 of the year-end amount, that is, at the end of the year, in December, there is a stress of overload in financing expenses, and at the very beginning of the budget year - in January, there comes a shock from underfunding of expenses.

Table 3. The analysis of the monthly revenues and spending of the state budget of Ukraine for 2013-2017 as a percentage of the total

N.4 a sattle	F	Revenues		S	Spending		
Month	Average	High	Low	Average	High	Low	
January	6,06	7,49	4,18	5,70	6,22	5,20	
February	7,19	9,23	6,63	6,65	8,07	4,36	
March	9,09	10,21	7,91	8,30	9,68	6,69	
April	8,76	10,72	6,58	7,54	8,42	6,64	
May	8,14	8,62	7,67	7,55	7,95	7,03	
June	7,87	8,71	7,08	7,96	8,15	7,72	
Julay	6,89	8,08	5,79	7,35	8,48	6,51	
August	9,43	10,07	8,24	7,77	8,17	6,87	
September	8,12	9,72	7,33	8,94	9,83	7,79	
October	8,23	9,09	7,78	8,67	9,93	7,70	
November	10,19	12,96	8,29	9,33	10,47	8,66	
December	10,03	11,82	8,67	14,24	16,70	12,16	
Total	100,00	220		100,00			

Source: compiled on the basis of $\frac{1}{220}$

On the other hand, in Canada (Table 4), the uniformity of financing of budget spending by months is carried out at a much higher level - for 11 months of the budget year financing amounted to 7.8-8.4 percent of total

expenses for the year and only in March - last month of the budget year, the share of spending amounted to more than 11 percent. Thus, spending in the

²²⁰ Implementation of the state budget of Ukraine [Electronic resource] – Available at: https://index.minfin.com.ua/finance/budget/gov/.

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last month of the year exceeded spending in the first month of the budget year by one third. The highest proportion of spending in March (11.3 percent) was in 2015, and the lowest in August was 7.1 percent of total spending for 2014. Even having much more organized, comparing to Ukraine, monthly allocation of budget funds, in 1987 the Chancellor of Canada's Treasury called this uneven allocation of budget funds at the end of the year "March Madness" [14, p.2]. American researchers note that at the end of the budget year, the desire to use the allocated budget funds as soon as possible is so tense that "merchants and contractors camped outside contracting offices in September, 30th (the close of the budget year) just in case money came through to fund their contracts". The suspension of the Government Shutdown 2019, 2018, and 2013 ²²¹ can be recalled.

Table 4. The analysis of the monthly revenues and spending of the state budget of Canada for 2013-2017 as a percentage of the total

Month	Re	venues		Spe	ending	
Month	Average	High	Low	Average	High	Low
April	8,41	8,65	7,86	8,06	8,36	7,83
May	7,99	8,33	7,41	7,81	7,87	7,78
June	8,42	8,71	8,25	8,04	8,13	7,84
Julay	8,08	8,63	7,59	8,17	8,35	7,85
August	7,51	7,96	7,05	7,96	8,57	7,15
September	7,69	8,09	7,37	8,16	8,93	7,83
October	7,87	8,51	7,21	8,21	8,47	8,01
November	8,01	8,33	7,66	8,15	8,30	8,04
December	8,77	9,10	8,38	8,16	8,29	7,93
January	9,14	9,50	8,67	8,37	8,62	8,11
February	9,29	9,91	8,70	7,81	8,03	7,64
March	8,81	9,92	8,32	11,10	11,37	10,85
Total	100,00			100,00		

Source: compiled on the basis of 222

[[]Electronic resource] / E. Cocrane, J. Medina. – 2018. – Available at: https://www.nytimes.com/2018/12/26/us/politics/government-shutdown-wall.html.

Fiscal Monitor [Electronic resource] – Available at: https://fin.gc.ca/pub/fm-rf-indexeng.asp.

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Such an uneven distribution of budgetary funds at the end of the budget year leads to various factors - the severity of budget allocation within one budget year; the absence of multi-year budget planning and budget planning based on the principle of "planning from what has been achieved", in which the principle of "use or lose forever" operates at the year-end; the prohibition of the use of budget savings for other purposes of public institutions, etc.

In Canada, in contrast to Ukraine, there is a reporting cycle on public spending, ²²³ which provides for 3 periods of parliamentary deliveries - 1 period from April 1st to June 23rd, 2 - from June 24th to December 10th, 3 - from December 11th to March 26th.

Such an uneven distribution of revenues and spendings of the state budget leads to the fact that the result of budget execution — a surplus or deficit accumulates and is recorded at the end of the budget year. The tables below show that for the analyzed period, with quarterly analysis, the deficit of the last quarter in Ukraine was 62 percent of the total annual budget deficit, and in Canada - 28 percent.

Table 5. The result of the quarterly execution of the state budget of Ukraine for 2013-2017 (mln. UAH)

Quarter of the budget year	Revenues	Spending	Result (surplus, - deficit)
1 (January - March)	589716	615169	-25453
2 (April- June)	654103	686447	-32344
3 (July -September)	645432	716460	-71028
4 (October-December)	751249	960148	-208899
Total	2640500	2978224	-337724

Source: compiled on the basis of 224

The Reporting Cycle for Government Expenditures [Electronic resource]. – 2010. – Available at: https://www.canada.ca/en/treasury-board-secretariat/services/planned-government-spending/expenditure-management-system/reporting-cycle.html.

Implementation of the state budget of Ukraine [Electronic resource] – Available at: https://index.minfin.com.ua/finance/budget/gov/.

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Table 6. The result of the quarterly execution of the state budget of Canada for 2013-2017 (mln. USD)

			Result
Quarter of the budget year	Revenues	Spending	(surplus,
			- deficit)
1 (April-June)	352197	350226	1971
2 (July -September)	330366	355594	-25228
3 (October-December)	349873	359045	-9172
4 (January - March)	386655	399580	-12925
Total	1419091	1464445	-45354

Source: compiled on the basis of 225

With a monthly analysis of budget execution, the budget deficit in the last month of the budget year in Ukraine was 47 percent, and in Canada 83 percent. Accounting for budgetary operations in Ukraine is carried out only on a cash basis, which provides for the reflection of operations at the time of movement of funds. The introduction of accounting for the budget deficit in accordance with the accrual method would make it possible to correctly determine the volume of the budget deficit.

Table 7. The result of the monthly execution of the state budget of Ukraine for 2013-2017 (mln. UAH)

Month	Revenues	Spending	Result (surplus, - deficit)
January	159929	169883	-9954
February	189882	198149	-8267
March	239905	247137	-7232
April	231337	224520	6817
May	214854	224771	-9917
June	207912	237156	-29244
Julay	182032	218999	-36967
August	248978	231274	17704
September	214422	266187	-51765

²²⁵ Fiscal Monitor [Electronic resource] – Available at: https://fin.gc.ca/pub/fm-rf-indexeng.asp.

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October	217374	258086	-40712
November	269008	278012	-9004
December	264867	424050	-159183
Total	2640500	2978224	-337724

Source: compiled on the basis of ²²⁶

Table 8. The result of the monthly execution of the state budget of Canada for 2013-2017 (mln.USD)

Month	Revenues	Spending	Result (surplus, - deficit)
April	119343	118099	1244
May	113435	114409	-974
June	119419	117718	1701
Julay	114609	119630	-5021
August	106559	116525	-9966
September	109198	119439	-10241
October	111689	120198	-8509
November	113715	119418	-5703
December	124469	119429	5040
January	129741	122578	7163
February	131903	114439	17464
March	125011	162563	-37552
Total	1419091	1464445	-45354

Source: compiled on the basis of 227

Table 9. The comparison Ukraine and Canada GDP (bill. USD) 2013-2017

Years	Ukraine	Canada
2013	183,31	1 842,63
2014	131,81	1 799,27
2015	90,62	1 559,62
2016	93,27	1 535,77

 226 Implementation of the state budget of Ukraine [Electronic resource] – Available at: https://index.minfin.com.ua/finance/budget/gov/.

Fiscal Monitor [Electronic resource] – Available at: https://fin.gc.ca/pub/fm-rf-indexeng.asp.



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2017	112,15	1 653,04
2017 to 2013 (percent)	61,18	89,71

Source: compiled on the basis of ²²⁸

As can be seen, from the comparative analysis of the GDP dynamics for 2013–2017, in both countries a certain decrease in GDP is observed during this period. However, in Canada, in which the level of budgetary discipline with financing expenses is much higher than in Ukraine, the decline in GDP is observed in a much smaller amount. On the other hand, in Ukraine, where in the last month of the fiscal year the spending was almost three times higher than the spending in the first month of the budget year, the loss in GDP was 40 percent. Thus, the state budget of Ukraine has lost its function of an instrument of economic development.

From a comparative analysis of the index of democracy in 2018, it is clear that Ukraine is in 84th place, the index of political culture is approaching the indices of Canada and the United States, but the index of the functioning of the government is 3 times less than in Canada and 2 times less than in the USA, that is, to improve the work of the government, including in the fiscal area is very relevant to Ukraine.

Table 10. The democracy index 2018 in Ukraine, Canada and the USA

Indacators	Ukraine	United States of	Canada
		America	
Rank	84	25	6
Political culture	6,25	7,5	8 <i>,</i> 75
Functioning of	3,21	7,14	9,64
government			

Source: compiled on the basis of 229

²²⁸Canada - Gross Domestic Product [Electronic resource] – Available at: https://knoema.ru/atlas/%D0%9A%D0%B0%D0%BD%D0%B0%D0%B4%D0%B0/%D0%92%D0%92%D0%92%D0%9F.

²²⁹Democracy index 2018 [Electronic resource] – Available at: http://www.eiu.com/Handlers/WhitepaperHandler.ashx?fi=Democracy_Index_2018.pdf&mod e=wp&campaignid=Democracy2018



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Conclusions. A comparison of budget spending and revenues of Ukraine and Canada by quarters and months has been made. It was found that in Canada, the gap between the first and last quarter and the month of the budget year is much smaller than in Ukraine. The main factors influencing the content of state budget spending have been indicated. The advantages, disadvantages and threats from uneven financing of budget spending by quarters and months of the budget year have been presented. The comparison of the GDP change rates for the analyzed period shows that less uneven spending of the budget at the end of the year in Canada has led to the positive results.

It is necessary for Ukraine to determine legislatively and normatively the provision concerning the state fiscal policy, as well as, the requirements for state bodies regarding the high-quality and effective execution of budgets. They must report on them and make appropriate decisions. After the adoption of the Budget Code in 2010, it is necessary not only to reform the institutional organization of the fiscal policy and improve the mechanism of its internal work, but also to increase the role of the fiscal policy in the economic life of a society and the state.