

**Increased tax revenues –
to what extent has improved tax compliance contributed?
- Summary of results -**

Third version

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Structure

1. Background
2. Quantitative analysis
 - Methodology
 - Analysis of effective tax rates and tax base increases due to reforms
 - Summary of quantitative analysis
- 3 Results from interviews with tax advisors and company representatives
4. Conclusions
5. Further need for improvement

1. Background

- Large nominal increase in tax revenues observed in 2017
- At the same time administrative reforms in tax administration and customs

Research question:

- Have recent reforms of the state tax service and customs service led to improved compliance and contributed to the increase?

Task:

- Identify revenue increase due to more effective tax collection and better compliance

Method:

- Quantitative analysis of revenue data
- Qualitative analysis: interviews with companies and tax professionals

2. Quantitative Analysis: estimating the reform effect

The increase of tax revenues can either be due to:

1. Economic growth effect:

- Tax base (e.g. taxable incomes) increases due to economic growth

2. Reform effect

- Increase of tax revenues due to de-shadowing and improved compliance
 - a) Increase of the effective tax rate:
 - Due to reforms tax revenues grow faster than the tax base
 - Method: we calculate the effective tax rate (ratio of tax revenues to tax base) to see if it increased over time
 - a) Increase of the tax base due to de-shadowing:
 - Tax base increases as more incomes are officially reported
 - Method: we use an econometric model to estimate the de-shadowing effect

We estimate the reform effect for the five main revenue sources: PIT, social security contributions, CIT, domestic VAT and import VAT

Personal income tax (PIT): effective tax rate

Personal income tax – effective tax rate

	2012	2013	2014	2015	2016	Jan-Jun 2015	Jan-Jun 2016	Jan-Jun 2017
Personal income tax revenues, MDL m	2,027	2,206	2,447	2,745	3,182	1,334	1,510	1,735
Share of nominal GDP	2.3%	2.2%	2.2%	2.2%	2.4%	2.5%	2.6%	2.7%
Wage sum, MDL m	33,631	36,591	40,015	43,449	47,359	20,859	22,414	26,084
Effective tax rate	6.0%	6.0%	6.1%	6.3%	6.7%	6.4%	6.7%	6.7%

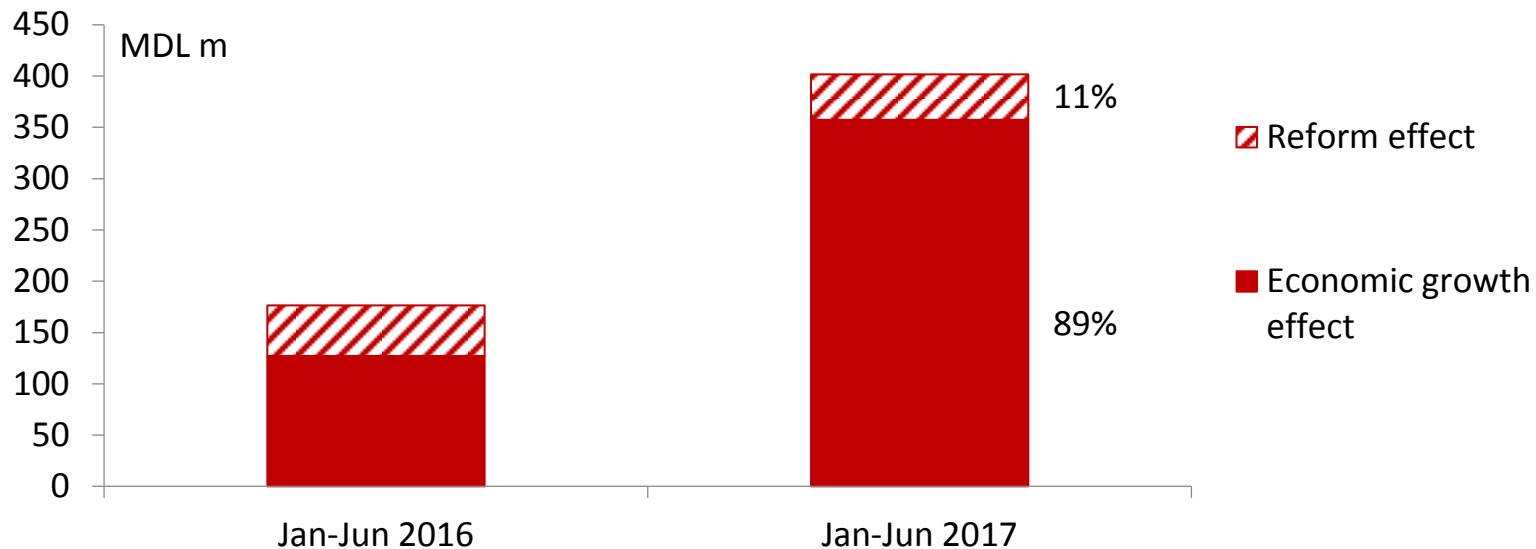
Source: Own calculations based on Ministry of Finance and NBS data

Estimation of reform effect:

- **Effective tax rate:** significant increase between 2012 and 2017 – up from 6.0% in 2012 to 6.7% in 2016, but no change since 2016
- **Tax base increase due to de-shadowing:** econometric analysis suggests 10% increase of tax revenue due to de-shadowing

Personal income tax: disaggregation of effects

PIT – Increase of revenues compared to Jan-Jun 2015



Source: Own calculations

Analysis of factors behind PIT revenue increase:

- Growth effect: increase of tax base due to economic growth: 89% of increase
- Reform effect: higher effective tax rate and de-shadowing account for 11% of increase (mainly due to de-shadowing of the tax base)

Conclusion: small but significant PIT revenue increase due to reforms

Social insurance contributions: effective tax rate

Social insurance contributions – effective tax rate

	2012	2013	2014	2015	2016	Jan-Jun 2015	Jan-Jun 2016	Jan-Jun 2017
Revenues from social contributions, MDL m	8,948	9,723	10,777	12,128	13,277	5,782	6,261	7,273
Share of nominal GDP	10.1%	9.7%	9.6%	9.9%	9.9%	10.9%	10.7%	11.4%
Wage sum, MDL m	33,631	36,591	40,015	43,449	47,359	20,859	22,414	26,084
Effective tax rate	26.6%	26.6%	26.9%	27.9%	28.0%	27.7%	27.9%	27.9%

Source: Own calculations based on Ministry of Finance and NBS data

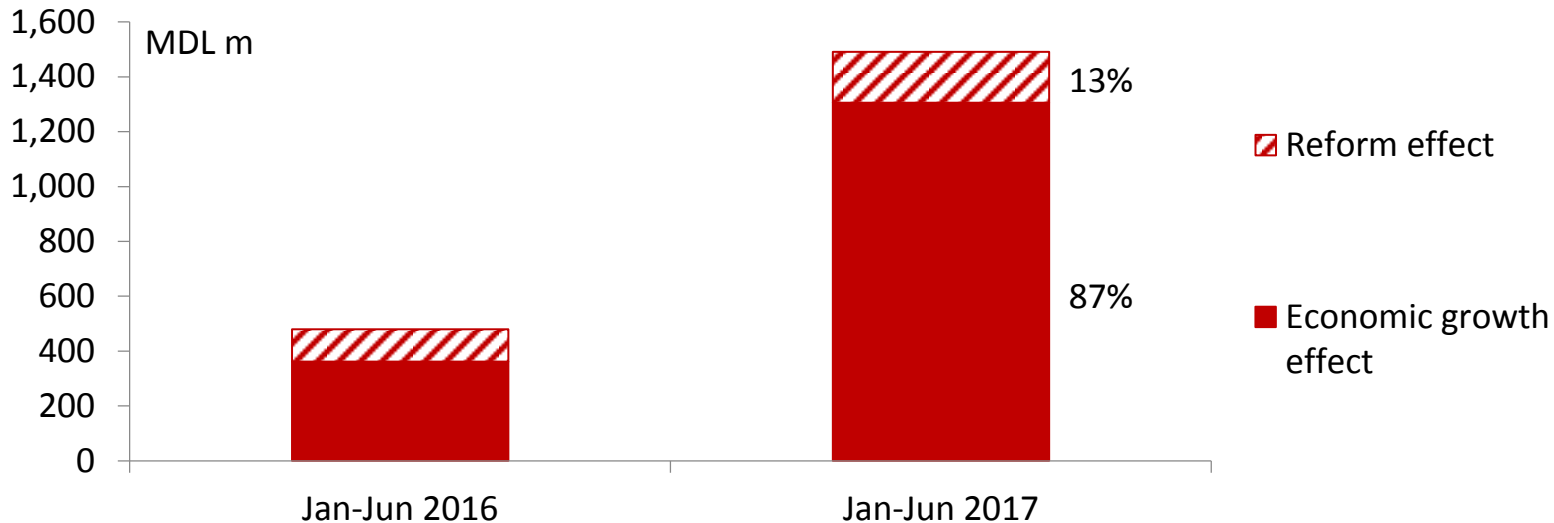
- Social insurance and PIT have same tax base, revenues show similar dynamics

Estimation of reform effect:

- **Effective tax rate:** moderate increase before 2016, stable thereafter
- **Tax base increase due to de-shadowing:** econometric analysis suggests 10% increase of revenues due to de-shadowing of the tax base

Social insurance contributions: disaggregation of effects

Social contributions – Increase of revenues compared to Jan-Jun 2015



Source: Own calculations

Analysis of factors behind revenue increase:

- Economic growth effect: 87% of increase due economic growth
- Reform effect accounts for 13% of tax revenue increase

→ Most recent increase largely due to increased economic growth, but also significant contribution of reforms

Corporate income tax (CIT): effective tax rate

Corporate income tax– effective tax rate

	2012	2013	2014	2015	2016	Jan-Jun 2015	Jan-Jun 2016	Jan-Jun 2017
Revenues from corporate income tax, MDL m	2,027	2,206	2,447	2,745	3,182	1,334	1,510	1,735
Share of nominal GDP	2.2%	2.0%	2.2%	2.3%	2.5%	2.8%	3.1%	3.4%
Estimated company profits, MDL m	40,055	47,128	54,489	60,424	67,612	23,573	27,180	26,938
Effective tax rate	4.9%	4.4%	4.5%	4.6%	5.0%	6.2%	6.6%	8.1%

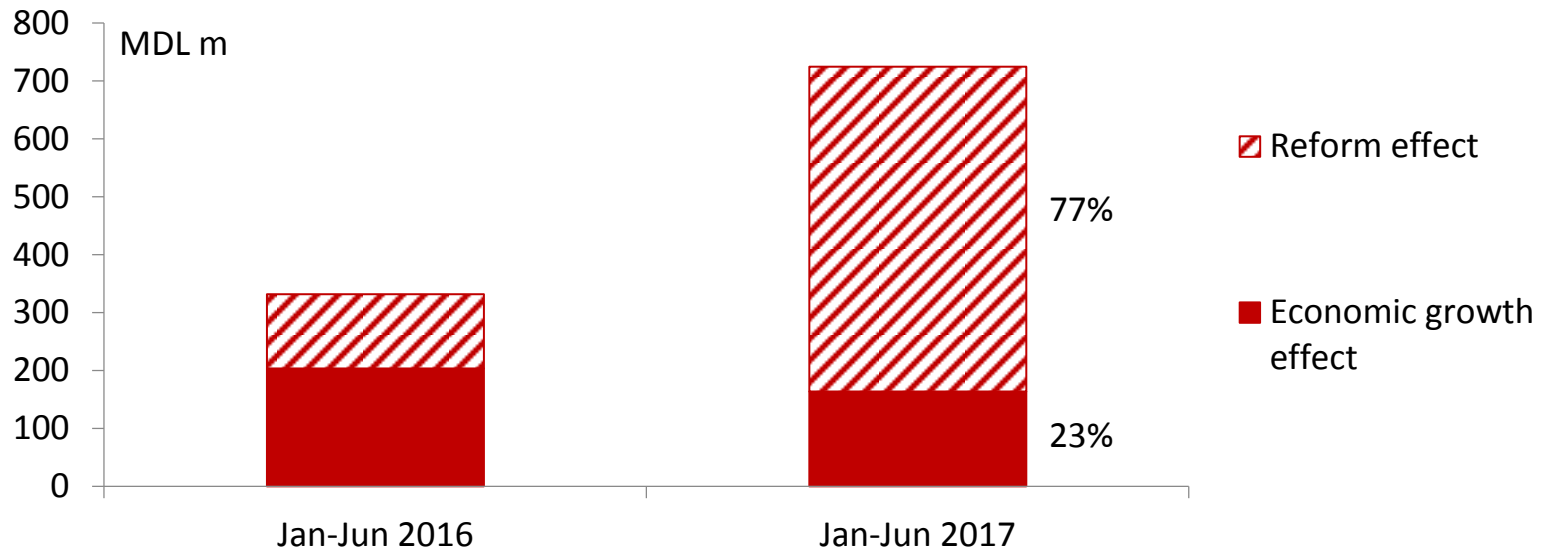
Source: Own calculations based on Ministry of Finance and NBS data

Estimation of reform effect:

- **Effective tax rate:** Substantial increase of effective tax rate over past years, H1 2015 vs H1 2017 increase of effective tax rate by 1.9 pp
- **Tax base increase due to de-shadowing:** econometric analysis suggests 6% increase of revenues due to de-shadowing of the tax base

Corporate income tax: disaggregation of effects

CIT – Increase of revenues compared to Jan-Jun 2015



Source: Own calculations

Analysis of factors behind CIT revenue increase:

- 77% of revenue increase due to reforms (mainly higher effective tax rate)
- 23% increase is due to increase of the tax base driven by economic growth

→ **Most recent CIT revenue increase largely reflects reform effects**

Domestic value added tax: effective tax rate

Domestic value added tax – effective tax rate

	2012	2013	2014	2015	2016	Jan-Jun 2015	Jan-Jun 2016	Jan-Jun 2017
Domestic VAT revenues, MDL m	3,506	3,990	4,370	4,830	5,374	2,208	2,462	2,821
Share of nominal GDP	4.0%	4.0%	3.9%	3.9%	4.0%	4.2%	4.2%	4.4%
Dom. consumption MDL m	52,825	58,936	65,303	76,071	84,777	32,345	36,247	37,329
Effective tax rate	6.6%	6.8%	6.7%	6.3%	6.3%	6.8%	6.8%	7.6%

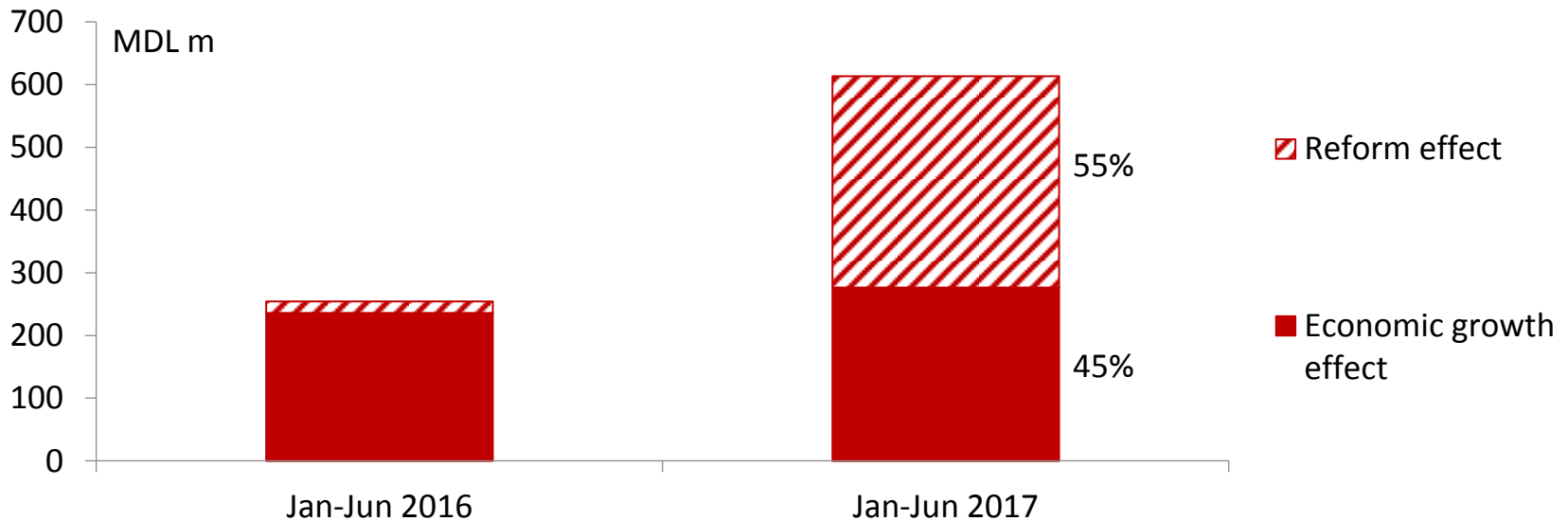
Source: Own calculations based on Ministry of Finance and NBS data

Estimation of reform effect:

- **Effective tax rate:** up from 6.8% in H1 2015 to 7.6% in H1 2017
- **Tax base increase due to de-shadowing:** econometric analysis suggests 10% increase of revenues due to de-shadowing of the tax base

Domestic value added tax: disaggregation of effects

Domestic VAT – Increase of revenues compared to Jan-Jun 2015



Source: Own calculations

- 55% of revenue increase can be attributed to reforms
 - 45% due to a higher effective tax rate
 - 10% due to de-shadowing of the tax base
- Remaining 45%: increase of tax base due to economic growth

→ Increase in domestic VAT revenues largely reflects reform effects

Effective tax rates: import value added tax

Import VAT – effective tax rate

	2012	2013	2014	2015	2016	Jan-Jun 2015	Jan-Jun 2016	Jan-Jun 2017
Import VAT revenues, MDL m	8,911	10,106	10,892	10,952	11,761	5,069	5,284	6,088
Share of nominal GDP	10.1%	10.1%	9.7%	8.9%	8.7%	9.6%	9.0%	9.5%
Imports, MDL m	63,140	69,153	74,644	75,016	80,101	35,865	37,244	42,212
Effective tax rate	14.1%	14.6%	14.6%	14.6%	14.7%	14.1%	14.2%	14.4%

Source: Own calculations based on Ministry of Finance and NBS data

- Collected through customs, not tax administration
- Over the past 5 years the effective rate is more or less constant
- No significant increase of effective tax rate
- Econometric analysis also shows no evidence of a reform effect
- **Increase in import VAT revenues mostly the result of an increase in the tax base due to economic growth, no reform effect measurable with our methodology**

Summary of quantitative analysis

Reasons for recent increase of tax revenues

Effective tax rate increase H1 2015 vs. H1 2017		Mainly due to		
		Economic growth effect	Reform effect	
			Increase of effective tax rate	De-shadowing of tax base
Personal income tax (PIT)	+0.3 pp	✓		✓
Social security contributions	+0.2 pp	✓		✓
Corporate income tax (CIT)	+1.9 pp	✓	✓	✓
Domestic VAT	+0.8 pp	✓	✓	✓
Import VAT	+0.3 pp	✓		

Source: Own research

- Corporate taxes (CIT, domestic VAT) show a strong reform effect measured by the effective tax rate and also by a de-shadowing of the tax base
- For PIT and social insurance contributions reforms contributed to a de-shadowing of the tax base
- Import VAT revenues increased largely due to an increase of the tax base driven by economic growth, no reform effect measurable with our methodology

3. Results from interviews

Objective

- Explore reasons for improved tax compliance

Questions covered during interviews

When comparing to the situation 2/5 years ago ...

- i. Did you notice any changes in **interaction with tax authorities**?
- ii. Have you noticed a change regarding **fiscal inspections**?
- iii. How do you assess the **professionalism of tax administration** (level of knowledge, speed and quality of responses)?
- iv. How do you assess the ease and speed of obtaining **tax refunds**?
- v. How do you assess the **overall administrative burden** of paying and reporting taxes?
- vi. How do you in general assess **incentives and sanctions** to pay taxes?
- vii. How do you assess the **interaction with customs authorities**?

I. Did you notice any changes in interaction with tax authorities?

Last two years:

- Most companies have not noticed significant changes
- Some (especially smaller) companies took note of reorganisation of tax services
- Also report of change in the mentality of tax authorities
 - More service oriented
 - Improved understanding of business needs and openness

During last 5 years:

- All respondents report an improvement in interaction with tax authorities
- Tax payers report improvements over the last 5 years in interaction with tax authorities

II. Have you noticed a change regarding fiscal inspections?

- General assessment: “Number of fiscal inspections is low”
 - Inspections not considered a great burden – especially for large tax payers with good tax compliance record
 - Again, not a recent development: decline in the number of inspections took place over the past five years
 - At the same time, increase of telephone calls from tax officials
- Improvement of inspections regime over past years may have fostered tax compliance

III. How do you assess the professionalism of tax administration?

- The professionalism of the tax officials assessed as mixed
 - Knowledge level of the tax administration staff varies
 - Responses are to be provided within a limit of 30 days, but often not satisfactory answers
-
- While some tax professionals excel, efforts are needed to ensure a consistently high level of professionalism for all tax officials
 - Professionalism of tax officials can be considered to have a great effect on tax compliance

IV. How do you assess the ease and speed of obtaining tax refunds?

- Majority of respondents notices improvements in obtaining refunds
- Described as recent development
- However, significant effort is needed for inspections in case of VAT refund request → only considered in cases of large refund
- Improved refund situation provides an incentive for companies to officially report their sales and also their purchases
- Knock-on effects in the form of de-shadowing and reduced tax avoidance possible

V. How do you assess the overall administrative burden of paying and reporting taxes?

- Administrative burden of reporting and paying taxes has reduced considerably over the last five years
 - Main improvement measure: **Electronic tax declaration**
 - But: Administrative tax burden remains high
 - Especially reporting payroll taxes
 - Recent merger of five tax reports into one positive, but actual amount of information remains the same
- Reduction in the administrative burden for reporting and paying taxes may have contributed to increased tax compliance
- Data collected in electronic format also gave the state authorities better means to detect tax avoidance

VI. Sanctions and incentives to pay taxes

Sanctions

- In general only levied in case of verifiable infringements
- Level of fines in the sphere of taxes is considered high for smaller companies, especially new entrants
- Not a problem for large companies with experienced accountants

Incentives to pay taxes

- Number of calls from tax authorities increased
 - Pressure on tax payers to pay higher advances on the tax payments
 - Reports of improved voluntary compliance
 - Transport companies and real estate companies are more likely to accept official (electronic) payments
 - Tax advisors seem to have noticed an increased voluntary compliance and improved tax discipline from their clients
- Reduced cost of compliance, gentle pressure from the tax officials and increased risk detection may change attitude among tax payers

VII. Interaction with customs authorities

- Respondents state that customs services have improved considerably
- Improvement described as a rather recent development
- Positive impact of the introduction of electronic declarations
- Noticeable change in the conduct of customs administration
- Import and export procedures require much less time and carry considerable less risk for companies

Conclusion:

- Reduced administrative burden (cost of tax compliance) for import and export
- Recent reforms may have increased the capacity of customs to detect avoidance and smuggling
- Quite recent, increase in revenue collection may take some time to take effect

4. Conclusions

- **Quantitative analysis** shows a reform effect in form of higher effective tax rate and a de-shadowing of the tax base for CIT and domestic VAT
- For PIT and social security contributions our analysis shows an increase of the tax base due to reforms
- For import VAT no effect of reforms measurable
- **Interview results** support increased findings of higher compliance due to a number of reasons
 - Reduction in the administrative burden when reporting and paying, especially corporate taxes (electronic tax declaration)
 - Electronic tax data base may have enabled fiscal authorities to be more effective in detecting tax avoidance
 - Too early to tell the effect of the most recent set of reforms
 - Based on experience with past reforms: recent measures likely to further improve tax compliance and thus revenue collection

5. Further need for improvements

- Analysis encourages continuation of reform processes aiming at reduction of administrative burden for reporting and paying taxes
- Especially payroll taxes still burdensome
- Government should consider how to extend and improve the refund regime
- Consider a training programme aiming at aligning the level of knowledge among tax officials
- Further reforms in order to achieve more clarity in the tax code

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