Export-oriented segment of Ukraine’s IT services market: Status quo and prospects

Olga Andrienko-Bentz, Director, PwC Ukraine
August, 2015

The government was considering drastic increase of personal taxation in IT industry through liquidation of 3rd group in simplified tax system

September, 2016

«In 2015 IT has become the third biggest sector in Ukraine by export volume, reaching the mark of 2.5 billion dollars and generating 3% of GDP...

Tax burden

20%

5%

-10 thds
IT specialists

+11 thds
IT specialists

...Our joint goal is to provide maximum support for IT sector»
For the first time:

- Consolidated industry analysis – based on input from 6 companies and open data
- Econometric model to forecast industry development till 2020
- Analysis of international taxation of IT industry – experts from 6 countries
Ukrainian IT services market has increased by 2.5 times

Share in nominal GDP

- 3.3%
- 0.6%

IT services market size

- $2.7 billion
- $1.1 billion

IT specialist employment in Ukraine

- 42.4 thds (2011)
- 91.7 thds (2015)

Sources: PwC analysis
IT plays a very important role in Ukrainian economy

- ₴10.3 billion budget revenues
- 420 thds jobs in IT and related industries
- ~₴5.8 billion bank deposits of IT specialists
- $2.0 billion mandatory sale of foreign currencies
- ~₴1.7 billion banks’ income from transactions with foreign currencies

Sources: PwC analysis
Decelerating growth – risk to global competitiveness

Rate of IT services export growth

- Ukraine: among TOP-25 IT services exporters
- Contracted software development: > 70% IT services exports

Ukraine: 10% growth, PwC model
Poland: 22% growth
Romania: 19% growth
Belarus: 12% growth

Sources: Balance of payments data of respective countries, International Trade Centre, PwC analysis
Senior experts are the most valuable asset of the sector

<table>
<thead>
<tr>
<th>Employment structure</th>
<th>Contribution to value created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experts with 7+ years of experience</td>
<td>19%</td>
</tr>
<tr>
<td>Developers</td>
<td>33%</td>
</tr>
<tr>
<td>Q&amp;A, Testers</td>
<td>24%</td>
</tr>
<tr>
<td>Other specialists</td>
<td>24%</td>
</tr>
</tbody>
</table>

91.7 billion

$2.7 billion

Sources: PwC analysis
Net income is one of the few material attractions to work in Ukraine

Gross and net income of senior developers and experts in Ukraine
[USD per month, 2015]

Sources: PwC analysis
Future of IT industry heavily depends on taxation

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Revenue (UAH billion, 2020)</th>
<th>Employment (thsd persons, 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best-case scenario:</strong></td>
<td></td>
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</tr>
<tr>
<td>• (\uparrow) tax rate add 1% annually</td>
<td>27</td>
<td>146</td>
</tr>
<tr>
<td>• (\uparrow) share of R&amp;D in software development</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baseline scenario:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Current tax rate</td>
<td>21</td>
<td>142</td>
</tr>
<tr>
<td>• Current market structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Worst-case scenario:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• (\uparrow) tax rate up to 20%</td>
<td>13</td>
<td>72</td>
</tr>
<tr>
<td>• (\downarrow) share of contracted software development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** PwC analysis
Ukraine can double the market size by 2020

Forecast of IT services market value in 2020:
[USD billion]

- 2015: 2.7
- Organic growth under current tax rate: 2.1
- Additional growth driven by improved business environment: 0.9
- 2020: 5.7

Sources: PwC analysis
«Win-win» strategy – cornerstone of success
Key stages of best-case scenario of IT services market development:

Forecast of IT sector development scenarios

Strategy and action plan to develop IT industry as business:

- Predictable and consistent taxation
- Domestic market stimulation
- Reforms of educational system
- IT and telecom infrastructure improvement
- Intellectual property rights protection
- Protect from abuse by public authorities
- Promotion of Ukrainian IT industry abroad
- Favourable conditions for IT professionals
- Other incentives

Development of high-tech industries with involvement of IT sector

Sources: PwC analysis
Growing IT will help further revitalize Ukrainian economy

- Budget revenues: from ₴10.3 billion to ₴27.2 billion
- Jobs in IT and related industries: from 420 to 670 thds
- Ukraine’s export proceeds: from $2.5 billion to $5.1 billion
- Share of GDP: from 3.3% to 4.5%
- Share of total exports: from 5.2% to 7.5%

Sources: PwC analysis
Appendices
Macroeconomic model of forecasting Ukraine’s fiscal revenues may become an effective tool to regulate IT business in Ukraine (1/2)

Strengths of PwC macroeconomic model:

Science-based:
- the macroeconomic model built upon the regression analysis;
- consistent sensitivities to changes in key variables (the model structure is given in Part 3).

Multifaceted:
- predicts market, macroeconomic, and fiscal impacts of IT sector in Ukraine.

Simple and flexible:
- easily quantifies sensitivities to changes in key variables and market parameters;
- delivers analytical and graphic modelling outcomes.

Extensive market coverage:
- Inputs provided by key players in IT sector.

Sources: PwC analysis
Appendix 1: PwC macroeconomic model

Macroeconomic model of forecasting Ukraine’s fiscal revenues may become an effective tool to regulate IT business in Ukraine (2/2)

**Strengths of PwC macroeconomic model:**

The macroeconomic model is built upon the following inputs:

- **EIU data** was used for macroeconomic forecasts of growth in GDP, exchange rates, inflation rate, incomes in Ukraine and other countries.

- Data on market structure and changes in the employment rate of IT specialists by competency level and market share of key players was provided by project stakeholders on the customer’s side.

- During the interviews, we identified that compensation of IT specialists in Poland is one of the key factors affecting employment of senior developers.

**Macroeconomic assumptions:**

Data provided by companies:

Regression analysis outcomes:
Countries implement various tax regimes for IT services markets to create competitive advantages

**Comparison of tax benefits in IT services markets in key competitor countries:**

<table>
<thead>
<tr>
<th>Country</th>
<th>General tax regime applied to IT sector:</th>
<th>Special economic zones only:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ukraine</strong></td>
<td>- simplified taxation regime available to IT specialists registered as private entrepreneurs</td>
<td></td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td>- reimbursement of 30% expenses (before 1 January 2016: 50%) for creative jobs. Used mainly by senior developers.</td>
<td>- exempt from CPT, VAT, and customs duties;</td>
</tr>
<tr>
<td><strong>Belarus</strong></td>
<td>- reimbursement of 150% R&amp;D expenses for general taxation entities;</td>
<td>- 9% preferential personal income tax rate for relevant employees;</td>
</tr>
<tr>
<td><strong>Romania</strong></td>
<td>- 3% preferential CPT rate for taxpayers using the simplified taxation regime;</td>
<td>- base amount cap for social insurance contributions;</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td>- 0% personal income tax with proven employment for individuals in creative industries; used by IT developers.</td>
<td>- exempt from land tax for three years.</td>
</tr>
<tr>
<td><strong>Kazakhstan</strong></td>
<td>- 100% allowance for export services during the first five years, and 50% during the subsequent five years;</td>
<td>- 100% allowance for real estate tax;</td>
</tr>
<tr>
<td></td>
<td>- 100% allowance on customs duties, service taxes, VAT, central sale tax rates;</td>
<td>- five-year tax holidays for social tax;</td>
</tr>
<tr>
<td></td>
<td>- exempt from other taxes that are not material for IT sector;</td>
<td>- simplified system for individuals working under licences with 2%/3% tax rate.</td>
</tr>
</tbody>
</table>

Sources: PwC analysis
Appendix 3: Assessment results of IT services market development under different tax regimes

Sharp changes in tax burden on IT specialists in Ukraine in 2016 could prompt emigration of 10,000 currently employed specialists.

Results of PwC employment assessment under different tax burden levels:

Net compensation of senior developers under different types of employment and taxation: (USD/month, 2016)

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<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT specialists as salary employees</td>
<td>2560</td>
</tr>
<tr>
<td>IT specialists as private entreprenures</td>
<td>3040</td>
</tr>
<tr>
<td>IT specialist under any form of employment</td>
<td>3200</td>
</tr>
</tbody>
</table>
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Quantification of IT specialist number growth during 2015-16 under different tax burden levels:

- **-10 thds** IT specialists - overall tax rate
- **+11 thds** IT specialists - compensation in Poland
- **+19 thds** IT specialists

Sources: PwC analysis