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Národohospodárska fakulta
Katedra financií

University of Economics in Bratislava
Faculty of National Economy
Department of Finance

Zborník príspevkov
zo XVI. ročníka
medzinárodnej vedeckej konferencie

FINANCIE A RIZIKO 2014

časť 2

Proceedings of the 16th International
Scientific Conference

FINANCE AND RISK 2014

vol. 2

Bratislava, Slovak Republic
Vydavateľstvo EKONÓM

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PREZENTÁCIE / PRESENTATIONS

Megatrends and Implications for the Policy Making in Slovakia

Ingrid Brocková
Permanent Representative of the SR to the OECD

Finance and Risk
Bratislava, November 25, 2014

Global Framework

- Pressure to address the **impacts of global financial and economic crisis**
- New multidimensional challenges (climate change, inequalities, unemployment of youth, and others) require **global, coherent and horizontal approach**;
- **Shift of wealth and dynamics** (BRIICS);
- **Interest and demand of politicians** for knowledge and solutions has never been higher (trust in government policy, institutions);

Are we sufficiently, theoretically and practically, equiped to solve the current problems?

How we are prepared to prioritize needs of the individual countries and cooperate with others in time of limited financial resources?

Global economy – ´crowded market´

- Many international actors – private sector, international organizations, states, civil society,

*How to achieve **the synergy and complementarity** towards shared goal?*

- Post–crisis situation – identification of challenges, **new reflection of economic reality needed**; **importance and role of the G20** (global standards as for example automatic exchange of information in tax area)

Relevancy: **Innovative advice to solve real problems** (societal demand)

Megatrends
multiply drivers of connected challenges

- **Demography** – global population expected to grow until 2050, from 7 billion today to 9 billion. The percentage of the population over 65 years in the OECD countries is to increase from 15% to over 25% in 2050. China and India are also likely to see significant population ageing.
- **Societal changes** – increased migration; booming middle class; decline in trust of established institutions, including central governments; rise of earning inequalities (by more that 30% in the OECD area up to 2060); shifts in morality and ethics, rise of fundamentalism in all regions; anti-globalisation tensions; multilateralism versus regionalism?
- **Geopolitical changes** – multipolar world – regional conflicts; declining of the US influence; access to the key sources; global *governance*;

Megatrends

- **Urbanisation** – 60% urban by 2030; megacities with population of 10m or more increased from 2 to 23 between 1970 and 2011, with majority of them located in developing coutries; by 2050 the total urban population will almost double from 3.4 bn (2009) to 6.4 bn (OECD).
- **Climate changes** – by 2050, global greenhouse gas (GHG) emissions projected to increase by 50%; by 2060, environmental damages in South and South-East Asia may decrease GDP by 5%; emissions from surface transport could rise by between 30% and 170% with much of that growth outside of the OECD; water demand will increase by 55%, due to growing demand from manufacturing; air pollution increase (particularly in Asia);

Megatrends

Global economy

- Shift in economic power to East and South;
- Cities generate 80% of economic growth by 2030;
- Debt problems;
- Rise of long term unemployment;
- By 2052, global GDP will be 2x not 4x today – slow GDP growth along with reduced trade and migration;
- **GDP v E7** (China, Mexico, India, Brazil, Russian Federation, Indonesia, Turkey) larger than G7 by middle of the century (PwC Economics 2013); increase of Asia´s share in the global GDP from 37% (2012) to 61% (2060);
- Differences between regions increase;

How to capture the economic reality?

- **Re-definition of progress – new „*narrative*", paradigm**? – pro-growth approach (notion of growth as a means to an end, rather as an end to its own right), alternatives to the growth: ecologic economy, harmonious society, sustainable development;
- „*no one size fits all*" approach – different conditions, different alternatives of solutions; **choice / mix of sectorial policies** (priorities): i) social (elimination of inequalities), ii) environmental, iii) institutucional, iv) national;
- **New asymetry**, new dynamics, new approach – **new combination of sectorial policies** needed

New approach, new tools?

- Reflexion of crisis – lessons learned
- *Trade-offs* of sectorial policies – complementarity, synergy (the need to look beyond the GDP as a measure of economic progress to identify other, more sophisticated measures that capture the needs of different population groups and that help to address rising inequalities;
- Institutions – *governance*

New approach:

1. **Different view on an economic development –** long term approach, new analytical framework; multi-dimensionality – new set of indicators and goals: **re-balancing of growth objectives – centrality of wellbeing, focus on inclusive growth**; importance of institutional aspects, ai. Recognition of complexity and strategic planning.

New approach, new tools?

2. **New analytical instruments,** shift to micro-level; new dimension of measurement as quality of jobs and skills; larger scale of economic models; strategic foresight; more dimensions included in outcomes definition; distributional effects of sectorial policies. Strengthening of linkages between financial sector and real economy.
3. **Horizontal approach** – elimination of fragmented approach to challenge silo-centred and institutionally fragmented thinking.
4. **Change of thinking** (mindset; buy-in) and **communication** across the administration.

Implications for the Slovak Republic

- **Comparative advantages** - membership in the EU, OECD, World Bank, IMF – rating in the international community
- **EU membership** – framework for the policy making (access to the global level, G20 work); EU as the anchor and guidance for policy making;
- **Internalisation of international standards** – standardisation of processes and economic system – formulation and implementation of sectorial policies – very often following more the EU goals rather than national interests (national ownership);

Challenges of the Slovak administration

- Formulation of **national interests** (also in sectorial policies); strategic role of the centre of the government;
- **Quality and capacity** (expertise) **of national administration** – stregthening of analytical capacity at the line ministries (*evidence–based, result-oriented*); **synergy of national actors**;
- **Coordination of the engaged actors** on national level – capacity to identify the trends;
- **Positive reform agenda** (vulnerability)

Priorities of the Slovak Republic

- **Sustainable and inclusive economic growth** (*trade off* between fiscal consolidation and pro-growth strategy); structural/systemic reforms/changes is the answer
- **Job opportunities** (the highest unemployment in the OECD);
- **Strengthening of competitiveness – convergence** (education and innovation system, business environment, engagement of private sector, regional development, infrastructure development);
- **Professionalisation of public sector** (analytical capacity);

Tools – synergy
Dialogue with the international organizations

- **Comparative analysis** (OECD, EU, rating agencies); comparative sectorial studies (WB, OECD);
- **Platform for exchange of views and an inspiration** for policy formulation and implementation of sectorial policies (sharing of „best practices“: NL (active labour market policies); Finland (links bewtween the research and development and business environment); Denmark, Sweden (development agenda); UK (PPPs); Estonia (eGovernment); NZ (education);
- **Country thematic studies / reviews** for the SR such as challenges of Eurozone membership (OECD); *OECD peer reviews* (system of development assistance); regular OECD economic surveys – recommendations for policy making in the MS (*Economic Survey 2014*);
- **Tools in areas where Slovakia has the lack of capacities** (statistical reviews, forcasting, etc).

Legacy of the crisis

- **Global financial and economic crisis has changed the environment** (*new economic thinking and institutional setting?*)
- **Dynamics in the country is important** (so called new member states of the EU) reforms during the accession process implemented „*beyond the EU*“, inspired by the OECD and the World Bank; though, still there are countries for inspiration for policy making;
- **International organizations with advocacy role** (necessary homework), international comparison (IMF, EU, OECD);
- **Investment in education, skills and quality of jobs** (human resources capacity);

New approach to public administration development

- Strategic capacity of state, strong quality institutions
- Effective instruments and processes
- Clear measurable outcomes
- Capacity and tools for providing quantitative and qualitative data (evidence-based effective decision making process, planning the future), RIA

Goal:

- Matching the concerns and regulatory solutions, considering trade offs between policy options overcoming the limitations of conventional policy frameworks to tackle complex economic and social reality,
- Providing integrated multisectoral policy responces and addressing long-term challenges to foster policy coherence

Effective state

- Financial urgency and lessons learned
- Reform is not an austerity
- Modern state of 21.century
- Important aspect of reform: effective business environment and state administration (bureaucracy)

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The impact of financial crisis on the development of derivatives

Petr Dvořák
Vysoká škola ekonomická v Praze

16th International Scientific Conference
FINANCE AND RISK 2014
Bratislava, 24 and 25 November 2014

WWW.VSE.CZ

Agenda

1. Introduction
2. Devolopment on derivatives markets
3. Reform of OTC market
4. Conclusion

Introduction

Are derivatives „weapons of mass destruction“?

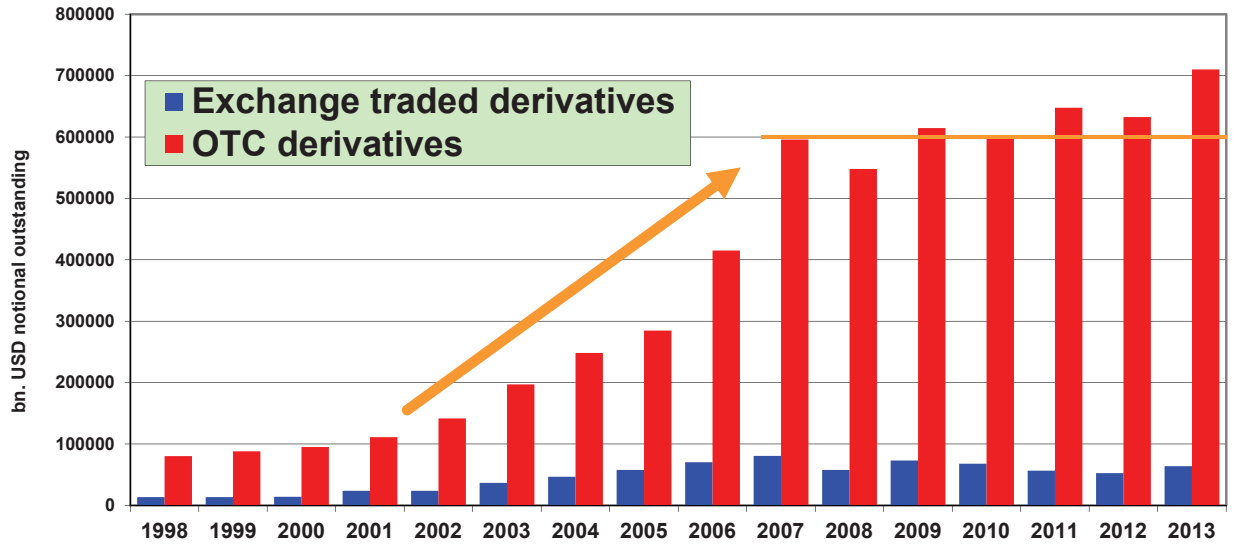
What was the role of derivatives in the financial crisis?

Is more regulation more stability?

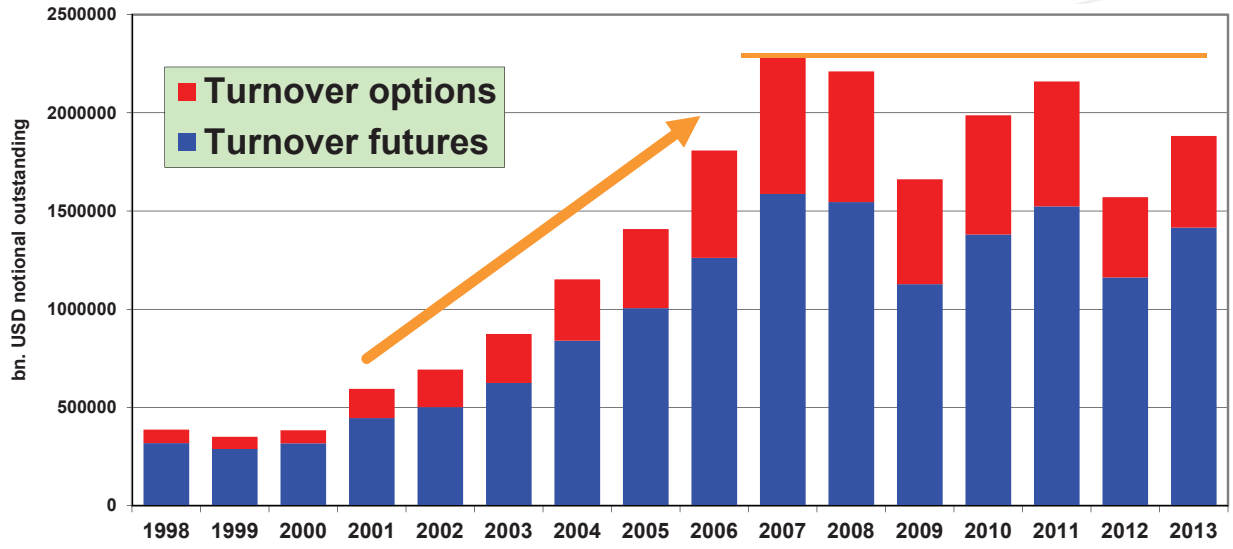
Agenda

1.	**Introduction**
2.	**Devolopment on derivatives markets**
3.	**Reform of OTC market**
4.	**Conclusion**

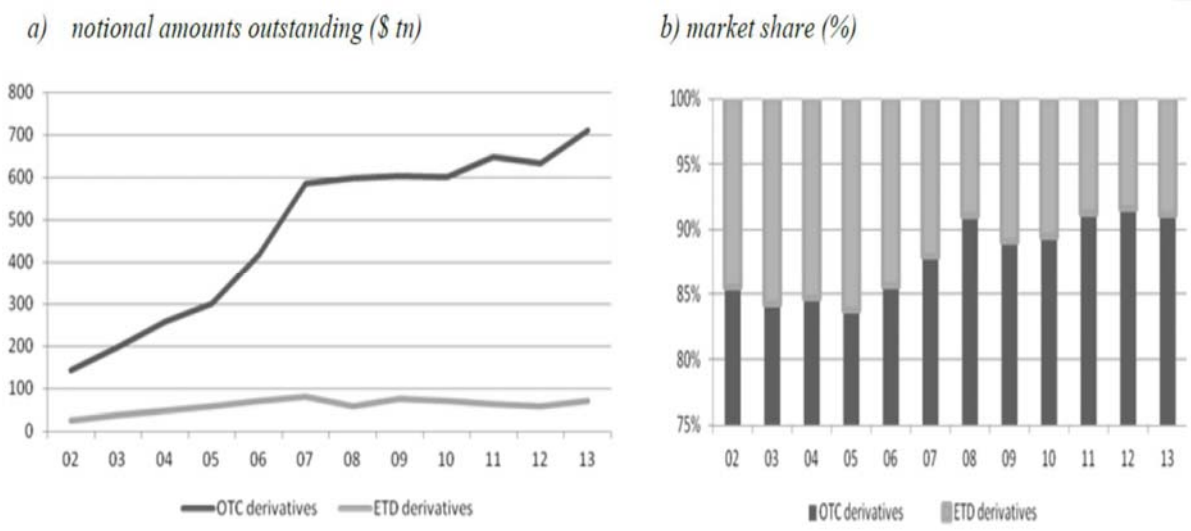
Derivatives devolopment



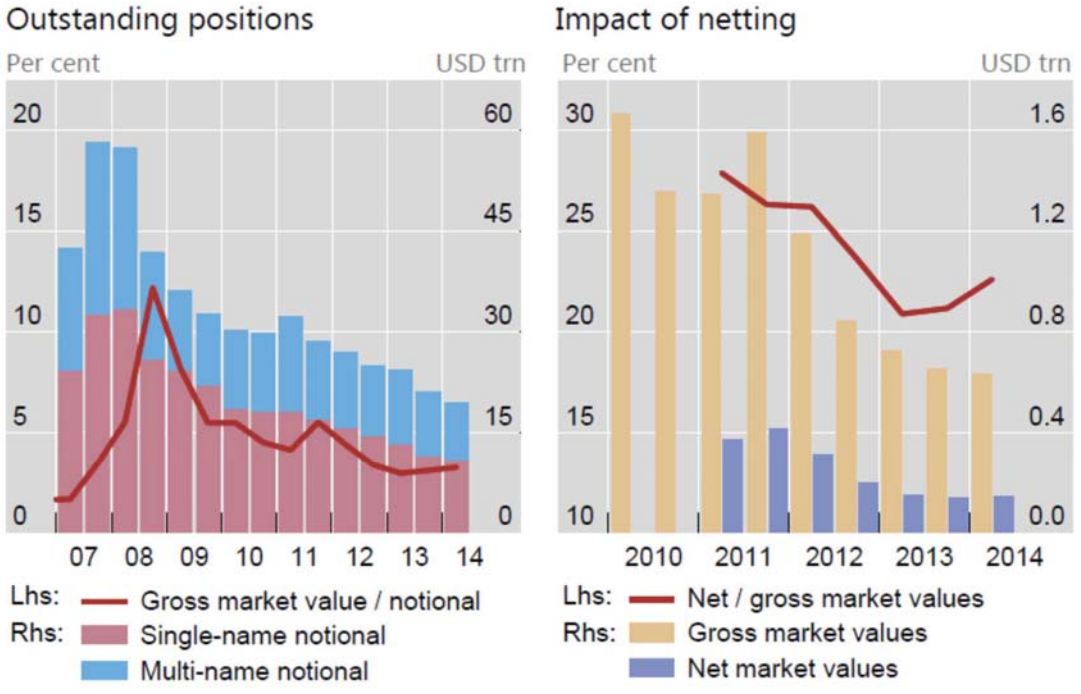
Turnover of ETDs



OTC vs. ETD activity



Credit default swaps



Source: BIS - OTC derivatives statistics at end-June 2014

Agenda

1.	Introduction
2.	Devolopment on derivatives markets
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Derivatives and financial crisis

Derivatives didn‘t cause the financial crisis but they did accelerate it.

Main issues:

- lack of transparency
- complexity
- massive size and interconnectedness

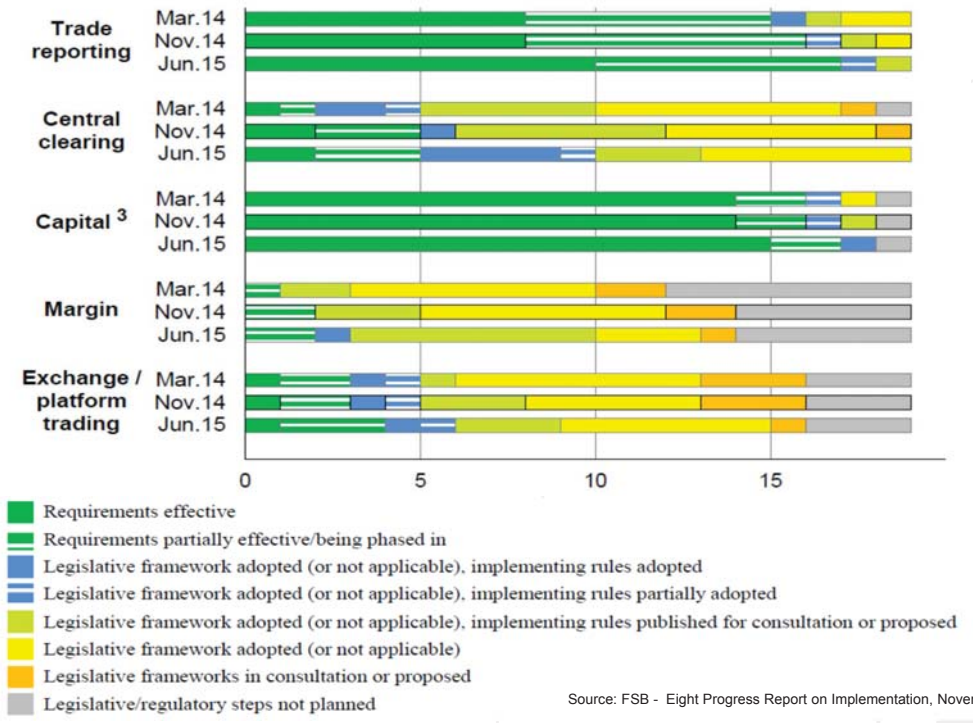
The reform of OTC derivatives markets

- OTC derivative contracts should be reported to trade repositories,
- all standardised OTC derivatives contracts should be cleared through central counterparties (CCPs)
- where appropriate, OTC derivative contracts should be traded on exchanges or electronic trading platforms,
- non-centrally cleared contracts should be subject to higher capital requirements and margining standards should be developed for non-centrally cleared trades

REDUCTION OF COUNTERPARTY RISK
IMPROVING OF TRANSPARENCY

Regulatory Reform Progress

Status across all 19 FSB member jurisdictions



Source: FSB - Eight Progress Report on Implementation, November 2014

Major CCPs

	Domicile	Contract type: Interest rate	Credit	Foreign exchange	Equities	Other*
LCH Clearnet Ltd.	UK	x		x		x
ICE Clear Europe	UK		x	x		x
ICE Clear Credit	US		x			
CME Group	US	x	x	x	x	
CME Clearing Europe	UK	x				x
Eurex Clearing AG	Germany	x	x		x**	
LCH Clearnet SA	France		x			
CDCC	Canada				x	
NASDAQ OMX Stockholm	Sweden	x				x
SGX Asiaclear	Singapore	x		x		x
Japan Securities Clearing	Japan	x	x			
BM&F Bovespa	Brazil	x		x	x	x

Source: DB Research

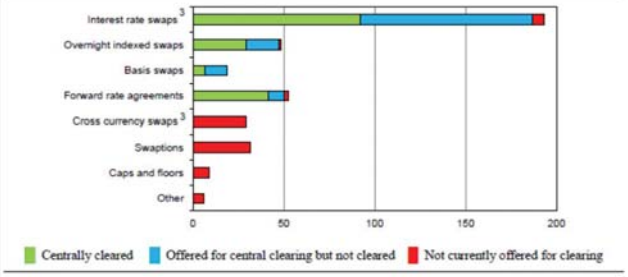
*Other includes energy, agricultural and commodity derivatives
**Equity derivatives clearing is yet to be launched

http://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000318054/Reforming+OTC+derivatives+markets%3A+Observable+changes+and+open+issues.PDF

Central Clearing of OTC Derivatives

Central Clearing of OTC Interest Rate Derivatives[1]

Outstanding notional amounts, USD trillions, end-September 2014[2]



[1] Estimates based on public trade repository information and present central clearing offerings of ASX, BM&F BOVESPA, CCIL, CME, Eurex, HKEx, JSCC, KDPW, KRX, LCH.Clearnet, Nasdaq OMX, Moscow Exchange, SCH and SGX. Amounts cleared include transactions subject to mandatory clearing requirements in certain jurisdictions and those cleared voluntarily. [2] Adjusted for double-counting of dealers' centrally cleared trades; amounts reported to DTCC by 16 large dealers. [3] Includes vanilla (> 98% of total) and exotic (< 2% of total) products as classified by DTCC.

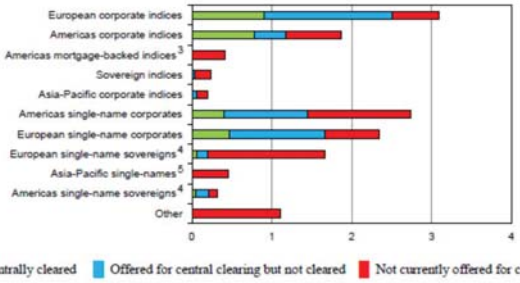
Central Clearing of New OTC Derivatives Transactions

Centrally cleared trades as percentage of weekly aggregate transaction volume[1]

[1] Transactions reported to CME Group SDR, DTCC Data Repository and ICE Trade Vault in accordance with CFTC trade reporting rules. Amounts cleared include both transactions subject to CFTC mandatory clearing requirements and those cleared voluntarily. [2] Excludes cross-currency transactions.

Central Clearing of OTC Credit Derivatives[1]

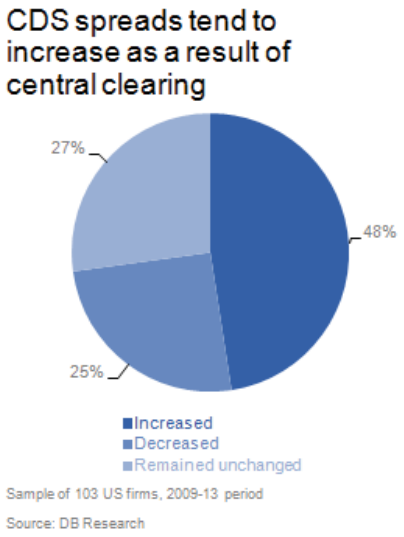
Outstanding notional amounts, USD trillions, end-September 2014[2]



[1] Estimates based on public trade repository information and present central clearing offerings of CME, Eurex, ICE Clear Credit, ICE Clear Europe, JSCC and LCH.Clearnet. Amounts cleared include transactions subject to mandatory clearing requirements in certain jurisdictions and those cleared voluntarily. [2] Adjusted for double-counting of centrally cleared trades; amounts reported to DTCC for all counterparties. [3] Includes both residential and commercial mortgage-backed indices. [4] Includes sovereigns, sub-sovereign states and state-owned enterprises. [5] Includes corporates, sovereigns and state-owned enterprises for Japan, Asia ex-Japan and Australia/NZ.

Source: FSB - Eight Progress Report on Implementation, November 2014

The impact of CCPs on derivatives market



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Agenda

1.	Introduction
2.	Devolopment on derivatives markets
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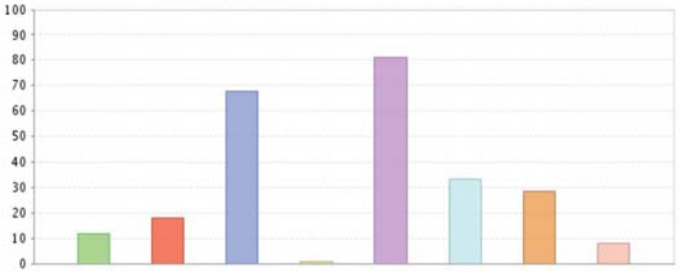
Conclusion

- systemic risk CCPs
- more information – can we use them?
- more regulation = better market?
- crucial questions is the behavior of market´s subjects

7. How is the new financial landscape changing how your firm hedges risk (please select all that apply)?

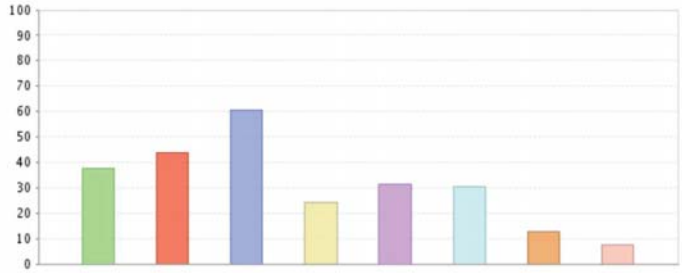


1 - Greater transparency makes hedging easier	11.85% (25)	2 - Increaseed use of clearinghouses reduces credit risk and facilitates hedging	18.01% (38)
3 - The costs related to hedging are increasing	67.77% (143)	4 - The costs related to hedging are decreasing	0.95% (2)
5 - Administrative burdens related to hedging have increased	81.04% (171)	6 - Collateral demands related to hedging are too high	33.18% (70)
7 - The new financial landscape is not changing how my firm hedges risk	28.44% (60)	8 - Other (please specify)	8.06% (17)

Response: 211

Source: ISDA Insight, August 2014

13. What are your biggest concerns regarding your ability to use derivatives to manage risk? (Please check all that apply)



Uncertainty about regulations in my firm's principal business regions	37.5% (36)	Concerns about scope of cross-border derivatives regulations	43.75% (42)
Increased costs of hedging	60.42% (58)	Reduced availability of hedging products	23.96% (23)
Fewer dealers to transact with	31.25% (30)	Not ready or able to handle clearing and/or margining of derivatives trades	30.21% (29)
No opinion/Not sure	12.5% (12)	Other	7.29% (7)

Response: 96

Source: ISDA Insight, August 2014

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Thank you for your attention!

dvorakp@vse.cz

NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

Single Supervisory Mechanism

Preparation of Slovak banks for the SSM from the risk point of view

Jozef Makúch
NBS Governor

Agenda

- Basel II / III implementation in Slovakia
- Single Supervisory Mechanism
- Comprehensive Assessment
- Conclusion

Basel II – implementation in Slovakia

The Basel II concept is based on what is known as the **three pillar** system

Pillar I

Describes requirements on banks for **minimum capital requirement (MCR)** calculations**.** It is divided into three main risk categories, namely credit risk, market risk and operational risk. Basel II brings more risk sensitive approaches to MCR calculations, such as the Internal Ratings-Based (IRB) approach for Credit risk, Value at Risk (VaR) approach for market risk, and Advanced Measurement Approach for operational risk.

Pillar II

Describes the **Supervisory Review and Evaluation Process** (SREP), which is the **main component** of banking supervision. This includes requirements on banks to implement and maintain the Internal Capital Adequacy and Assessment Process (ICAAP) and requires competent authorities (supervisors) to assess the ICAAP and to conduct the SREP assessments.

Pillar III

Describes market discipline, i.e. requirements on banks to disclose economic indicators and to describe their financial position.

Basel II – implementation in Slovakia

Milestones of **Basel II** implementation in Slovakia

2002 – 2005	Implementation of risk-based supervision
Pillar I:	
Since 2007	Assessment and approval of IRB, VaR and AMA models (described in more detail in annex) Assessment of model changes
Pillar II:	
2006	Preparation of SREP and ICAAP assessments Management meetings with banks Implementation of new supervisory processes
2007-2008	Testing exercise First ICAAP submission and assessment Workshops with banks
2009	Full SREP assessment Pillar II decision on capital

Basel II/III – implementation in Slovakia

The implementation of Basel II/III imposes requirements on banks to significantly **strengthen** their risk processes. The largest banks in Slovakia have been continuously implementing more risk sensitive approaches to risk measurement, especially for credit and operational risk. Some banks have also implemented the VaR model for market risk.

Article 73 of the CRD IV:
Institutions shall have in place sound, effective and complete strategies and processes to assess and maintain on an ongoing basis the amounts, types and distribution of ***internal capital*** *that they consider adequate to cover the nature and level of the risks to which they are or might be exposed.*

Those strategies and processes shall be subject to regular ***internal review*** *to ensure that they remain comprehensive and proportionate to the nature, scale and complexity of the activities of the institution concerned.*

This describes the general requirements on banks to implement and maintain the Internal Capital Adequacy Assessment Process – ICAAP.

Basel II/III – implementation in Slovakia

- All banks were asked to implement the **Internal Capital Adequacy and Assessment Process**. The implementation phase was between 2006 and 2008.
- The **principle of proportionality** was applied by NBS supervisors in this area, i.e. more advanced approaches were required for more complex banks.
- A majority of Slovak banks have implemented approaches based on **frameworks defined by their parent companies**. NBS supervisors have been assessing whether the approaches implemented are reliable for local banks and whether they are well calibrated to local risks
- All the CRR/CRD IV (i.e. Basel II and Basel III) components are also implemented within the Single Supervisory Mechanism.

Agenda

Basel II / III implementation in Slovakia

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Single Supervisory Mechanism

- As the first pillar of the banking union, the SSM should ensure coherent and effective prudential supervision of credit institutions (banks) in the European Union and promote the single rulebook for financial services, which is applicable to credit institutions in all participating Member States.
- **The SSM** is composed of the **European Central Bank** and the **national competent authorities (NCAs) of participating Member States.**
- **Participating Member State** means a Member State whose currency is the euro or a Member State whose currency is not the euro which has established a close cooperation with the ECB based on a decision adopted by the ECB.

Single Supervisory Mechanism

- **On 4 November 2014, the ECB** took over supervisory tasks within the SSM.
- The ECB is directly supervising around **120 groups** (including some 1,200 significant institutions).
- To ensure consistency in the exercise of supervision, the ECB cooperates with national authorities in exchanging information relating to credit institutions classified as less significant (around 3,700 entities).

Single Supervisory Mechanism

Significant credit institutions/groups under the ECB's direct supervision

A credit institution is categorized as **significant** if it meets any one of the following criteria:

- **Size** – the total value of its assets exceeds EUR 30 billion;
- **Importance for the economy of the EU or any participating Member State** – the ratio of its total assets to the GDP of the participating Member State in which it is established exceeds 20%, unless the total value of its assets is below EUR 5 billion;
- **Significance of cross-border activities** – in the case of a parent company (belonging to a banking group) with subsidiaries in more than one other participating Member State, the total value of its assets exceeds EUR 5 billion and the ratio of its cross-border assets/liabilities to its total assets/liabilities exceeds 20%.
- **It is one of the three most significant** banks established in a given Member State.
- It has requested or received **public financial assistance** from the European Stability Mechanism or European Financial Stability Facility.
- The ECB may also, on its own initiative, consider an institution to be of significant.

Single Supervisory Mechanism

***Significant* credit institutions in Slovakia**

The 3 most significant banks in Slovakia are under the ECB's direct supervision:

Slovenská sporiteľňa, a.s.

Všeobecná úverová banka, a.s.

Tatra banka, a.s.

The following institutions are under the ECB's direct supervision due to the significance of their banking group

Československá obchodná banka, a.s. & ČSOB stavebná sporiteľňa, a.s.

Sberbank Slovensko, a.s.

UniCredit Bank Czech Republic & Slovakia, a.s. (branch of foreign bank)

Single Supervisory Mechanism

NBS tasks concerning significant Slovak banks

The SSM functions on the basis of continual cooperation between the **ECB and NCAs** (the NCA in Slovakia is Národná banka Slovenska).

The ECB and NCAs of participating Member States (including NBS) are **obliged to cooperate and exchange information.**

Single Supervisory Mechanism

NBS tasks concerning significant Slovak banks

As part of the ECB's prudential supervision of **significant banks in Slovakia, the NBS has assigned staff to the Joint Supervisory Teams (JSTs) established for each institution,** as well as participates in other decision-making processes for the granting of authorizations, acquisition of qualifying holdings, and notification of banks' cross-border activities.

NBS, as the competent supervisory authority, exercises supervision over the provision of investment activities, payment services, anti-money laundering (AML), and financial consumer protection.

Single Supervisory Mechanism

NBS tasks concerning significant Slovak banks

CONDUCTING SUPERVISION

On-going supervision (including SREP - RAS ICAAP and ILAAP)	▪ Day-to-day supervision of the activities of banks and continual monitoring of quantitative data and risk management ▪ Assessment and monitoring of banks is communicated to the Joint Supervisory Team established for the given institution
Joint on-site inspections	▪ Participation of NBS staff in on-site inspections coordinated by the ECB
Assessment of internal models	▪ Through JSTs, NBS participates in the process of assessing IRB models
Participation in Colleges of Supervisors	▪ NBS staff also take part in supervisory colleges chaired by the ECB, with the aim of producing joint decisions (e.g. on capital, liquidity)
Recovery plans and timely intervention	▪ Through JSTs, NBS takes part in recovery and early intervention measures for banks.

Single Supervisory Mechanism

NBS tasks concerning significant Slovak banks

PROCEEDINGS

Licensing proceedings	▪ Applications for authorizations and the acquisition of qualifying holdings in banks is **assessed by NBS in terms of national conditions** and its proposed decisions are to be sent to the ECB ▪ If the legal requirements for the granting of an authorization are not met, **NBS will issue the decision** ▪ Cooperation between the ECB and NBS in carrying out "fit and proper" assessments of management body members ▪ NBS leads proceedings in tasks not entrusted to the ECB (e.g. prior approval of bank mergers)
Cross-border activities of banks (notifications)	▪ Where banks intend to begin cross-border activities, it is expected that NBS and the ECB will cooperate in the notification process
Sanctioning proceedings	▪ The NBS leads sanctioning proceedings in cases where the ECB does not perform supervisory tasks (e.g. contravention of anti-money-laundering provisions, payment services) ▪ The ECB may ask NBS to start sanctioning proceedings where this is necessary to accomplish the ECB's tasks

Single Supervisory Mechanism

Less significant credit institutions under NBS's direct supervision

Less significant credit institutions comprise:

Credit institutions that do not meet criteria for significance as to size, importance for the economy of the EU or a participating Member State, or significance of cross-border activities.

Credit institutions that do not meet other criteria for significance (e.g. receipt of public financial assistance).

Single Supervisory Mechanism

Less significant credit institutions in Slovakia

Banks under NBS's direct supervision

OTP Banka Slovensko, a.s.,

Poštová banka, a.s.,

Prima banka Slovensko, a.s.,

Prvá stavebná sporiteľňa, a.s.,

Wüstenrot stavebná sporiteľňa, a.s.

Privatbanka, a.s.,

Slovenská záručná a rozvojová banka

Branches of foreign credit institutions (remaining under NBS's supervision to the relevant extent)

Single Supervisory Mechanism

NBS tasks concerning less significant Slovak banks

NBS is **the competent supervisory authority for banks** classified as **less significant** and branches of foreign credit institutions to the relevant extent

NBS, as the competent supervisory authority, exercises supervision over the provision of investment activities, payment services, anti-money laundering (AML), and financial consumer protection.

Single Supervisory Mechanism

NBS tasks concerning less significant Slovak banks

Conducting supervision	▪ NBS is in full charge of on-site and off/site supervision of less significant banks in Slovakia ▪ NBS staff participate in Colleges of Supervisors
Proceedings	▪ Licensing proceedings for less significant banks shall be the same as those for significant banks (except for management assessment) ▪ In the case of sanctioning proceedings the NBS has full power to impose sanctions on less significant banks
Other tasks	▪ NBS will notify the ECB of each material supervisory procedures it takes within the supervision of less significant banks ▪ In such cases, NBS will send proposed decisions to the ECB for comment ▪ NBS will carry out those of its other information duties towards the ECB which concern less significant banks

Single Supervisory Mechanism

Supervisory principles implemented within the Single Supervisory Mechanism *

Principle 1 – **Use of best practices**

Principle 2 – **Integrity and decentralisation**

Principle 3 – **Homogeneity within the SSM**

Principle 4 – **Consistency with the Single Market**

Principle 5 – **Independence and accountability**

Principle 6 – **Risk-based approach**

Principle 7 – **Proportionality**

Principle 8 – **Adequate levels of supervisory activity for all credit institutions**

Principle 9 – **Effective and timely corrective measures**

* Source: **Guide to banking supervision**
https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssmguidebankingsupervision201411.en.pdf?404fd6cb61dbde0095c8722d5aff29cd

Single Supervisory Mechanism

Supervisory principles implemented within the Single Supervisory Mechanism

Principle 6 **– Risk-based approach**

*The SSM approach to supervision is **risk-based**. It takes into account both the degree of damage which the failure of an institution could cause to financial stability and the possibility of such a failure occurring. Where the SSM judges that there are increased risks to a credit institution or group of credit institutions, those credit institutions will be supervised more intensively until the relevant risks decrease to an acceptable level. The SSM approach to supervision is based on qualitative and quantitative approaches and involves judgement and forward-looking critical assessment. Such a risk-based approach ensures that supervisory resources are always focused on the areas where they are likely to be most effective in enhancing financial stability.*

Agenda

Basel II / III implementation in Slovakia

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Comprehensive Assessment

Three phases of the comprehensive assessment

1 Supervisory Risk Assessment

- Assessment of main risk factors, e.g. in the area of liquidity, indebtedness and financing
- Quantitative and qualitative analysis

2 Asset Quality Review

- Data quality assessment, asset and collateral valuation
- Detailed assessment of provisioning

3 Stress Test

- Review of banks' loss absorption capacity under baseline and adverse scenarios

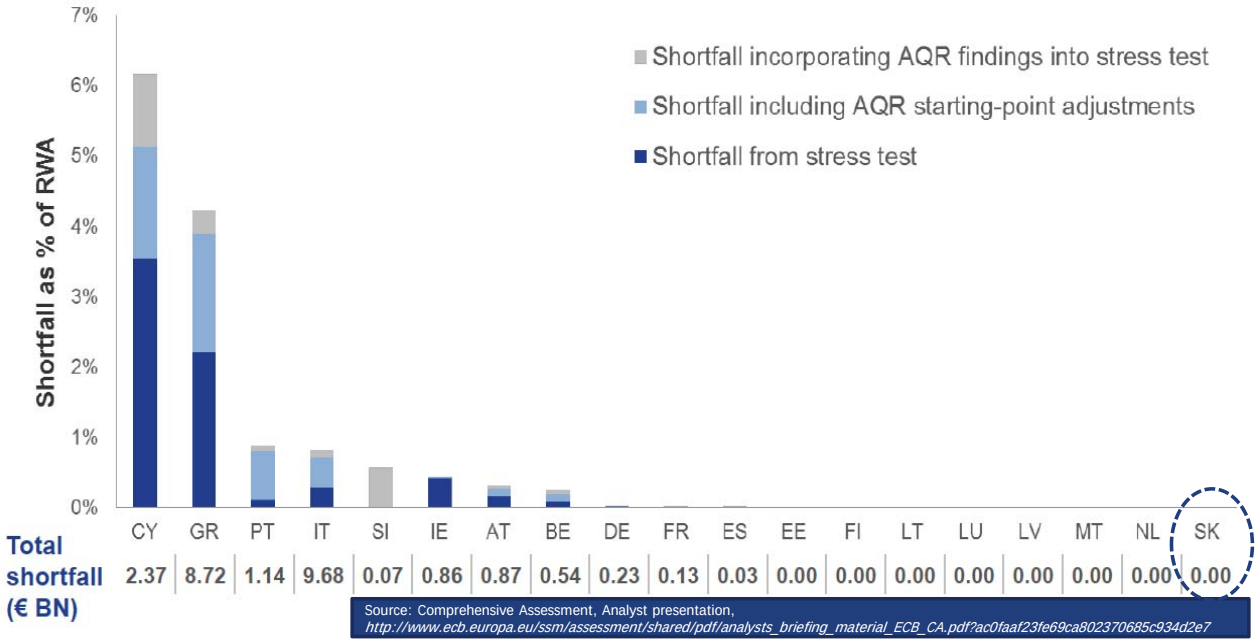
Comprehensive Assessment

Results of the comprehensive assessment

- Comprehensive assessment results were published on **26 October 2014.**
- Banks' individual results and the Aggregate Report on the Comprehensive Assessment were published.
- The **130** largest banks in the euro area were assessed, based on their balance sheets as of 31 December 2013.
- Altogether **25 banks** were found to have a capital shortfall, **amounting to EUR 25 billion** in total (12 of these banks have already made up the shortfall, increasing their capital by EUR 15 billion).
- Banks with a capital shortfall were required to prepare capital plans within two weeks after publication of the results.

Comprehensive Assessment

Breakdown of capital shortfall by countries



Source: Comprehensive Assessment, Analyst presentation, *http://www.ecb.europa.eu/ssm/assessment/shared/pdf/analysts_briefing_material_ECB_CA.pdf?ac0faaf23fe69ca802370685c934d2e7*

Comprehensive Assessment

Comprehensive Assessment outcome drives further analysis

Capital market activities: review of processes revealed a vast diversity of practices in capital market activities processes.

- Work envisaged: deep dive into drivers of findings; employ the information gathered to understand various practices of pricing, methodologies and processes and identify hidden risks.

Loan losses: The AQR led to an €136 billions increase in non-performing exposure, with increases across all assets segments, where

- **Large SME;**
- **Large Corporates and;**
- **Shipping (special focus – see next slide)**

experienced largest relative increases.

- Work envisaged: deep dive into driver of findings to identify patterns and hidden risks; RWA analysis of those asset classes.

Comprehensive Assessment

Risk analysis will focus on four additional risks

- **Leveraged finance:** shows signs of overheating, including substantially increasing volumes, decreasing yields and relaxed risk standards.
  Future work: a **workshop** will be organized with a couple of SSM banks active in these markets; depending on outcome further work will be done together with NCAs.
- **Real estate lending:** credit extension in this area has continued, raising macro-prudential concerns.
  Future work: RIA will assess the **magnitude of real estate risks in different markets** and liaise with JSTs to assess **banks' risk controls** in this area.
- **Interest rate risk in the banking book:** banks face prolonged deterioration in their net interest rate margins, the implications can be system-wide.
  Future work: RIA will conduct **micro-sensitivity analyses** to measure the possible impact of IR developments on banks' incomes and balance sheets.
- **Shipping finance:** risks relate to the shipping exposures themselves but also to the methodologies applied in this area.
  Future work: DG-MS4 will set up an expert team involving the other micro-prudential DGs and NCA experts.

Comprehensive Assessment

Slovak banks within the comprehensive assessment

Slovak banks included in the comprehensive assessment

- **Slovenská sporiteľňa, a.s.**
- **Všeobecná úverová banka, a.s.**
- **Tatra banka, a.s.**

These three banks represent, by asset size, roughly 50% of the Slovak banking sector, and all of them achieved excellent results. Each bank's CET1 ratio (the measure of highest quality capital) was far higher than the minimum requirement, even under the adverse scenario.

Comprehensive Assessment

Results of the comprehensive assessment of Slovak banks

- For an extended period of time, the capital adequacy and stability of Slovak banks has been assessed by NBS as very good.
- Slovak banks follow a standard model of banking (taking deposits and providing loans), and their portfolios contain a low amount of high risk assets.
- Even before the comprehensive assessment began, Slovak banks had sufficient capital and the vast majority of that capital was of the highest quality (CET1).
- The comprehensive assessment results for Slovakia confirm **the prudency** of both banks and banking supervision.

Comprehensive Assessment

Results of the comprehensive assessment of Slovak banks

Review of the results of the three most significant Slovak banks under both scenarios

CET 1 %	Pre AQR	Post AQR	Baseline scenario			Adverse scenario		
	31.12.2013	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2014	31.12.2015	31.12.2016
Slovenská sporiteľňa, a.s.	20.49%	19.49%	19.91%	20.36%	20.77%	19.51%	20.18%	19.14%
Tatrabanka, a.s.	15.43%	14.88%	14.99%	14.79%	14.84%	13.49%	12.60%	11.68%
Všeobecná úverová banka, a.s.	16.01%	15.76%	15.92%	16.07%	16.14%	14.60%	14.26%	13.82%

Limit = 8 %

Limit = 5.5 %

Agenda

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Conclusion

Basel II/III implementation in Slovakia
Continuous implementation of Basel II/III requirements is significantly improving banks approaches to risk management and measurement within Pillar I and Pillar II.

Single Supervisory Mechanism
The SSM principles follow a risk-based approach and implement Basel III principles accordingly.

Comprehensive Assessment
The comprehensive assessment, conducted independently by the ECB and incorporating the main Basel III principles, confirmed the strong position of the three largest Slovak banks.

Slovak banks are ready for the Single Supervisory Mechanism

Thank you

Annex I

implementation of advanced risk models

Slovenská sporiteľňa, a.s.

Credit risk
2008 implementation of IRB approach for non-retail exposures (FIRB)
2008 implementation of IRB approach for retail exposures (AIRB)

Market risk
2006 implementation of VaR model
2006 implementation of adjustment to VaR model by addition of new products
2012 implementation of stress testing in VaR model

Operational risk
2009 implementation of AMA model (group-wide model)
2011 implementation of a material change regarding the recognition of insurance contracts

Annex I
implementation of advanced risk models

Všeobecná úverová banka, a.s.

Credit risk
2011 implementation of IRB approach for non-retail exposures (FIRB); 2014 implementation of AIRB approach for corporate exposures
2012 implementation of IRB approach for retail mortgages secured by residential real estate
2014 implementation of IRB approach for retail SME exposures

Segments in the implementation plan:
Institutions - financial institutions PD, LGD -2015
Non-banking financial institutions - FIRB - PD model - 2015
Retail mortgages secured by non-residential real estate -2015
Retail unsecured (non-SME) – 2015/2016
CCF model for corporate exposures – 2015/2016
Subsidiaries: CFH, leasing - 2016

Market risk
2006 implementation of VaR model
2007, 2008 implementation of adjustment to VaR model by addition of new products
2013 implementation of stress testing in VaR model

Operational risk
2010 Implementation of AMA model (group-wide model)
2013 implementation of change and extension of AMA model for subsidiaries (Consumer Finance Holding, VUB leasing)

Annex I
implementation of advanced risk models

Tatra banka, a.s.

Credit risk
2008 implementation of IRB approach for non-retail exposures (FIRB)
2009 implementation of IRB for retail exposures (AIRB)
2013 implementation of IRB for SMB exposures (SME corporate, FIRB)

Market risk
Standardised approach

Operational risk
Standardised approach
AMA implementation planned in (2015-2016)

Annex I
implementation of advanced risk models

Československá obchodná banka, a.s.

Credit risk
2014 implementation of IRB approach for non-retail exposures (FIRB)
2014 implementation of IRB for retail exposures (AIRB)

Segments in the implementation plan:
Municipalities

Market risk
Standardised approach

Operational risk
Standardised approach

Sberbank Slovensko, a.s.

Credit risk
Standardised approach

Market risk
Standardised approach

Operational risk
Standardised approach

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Outline

- What is deficit bias?
- Lessons from the crisis
- Institutional aspects of creating more fiscal space
- The new European fiscal architecture

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Deficit bias

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Four ingredients:

- Goal
- Stake
- Referee
- Supporters

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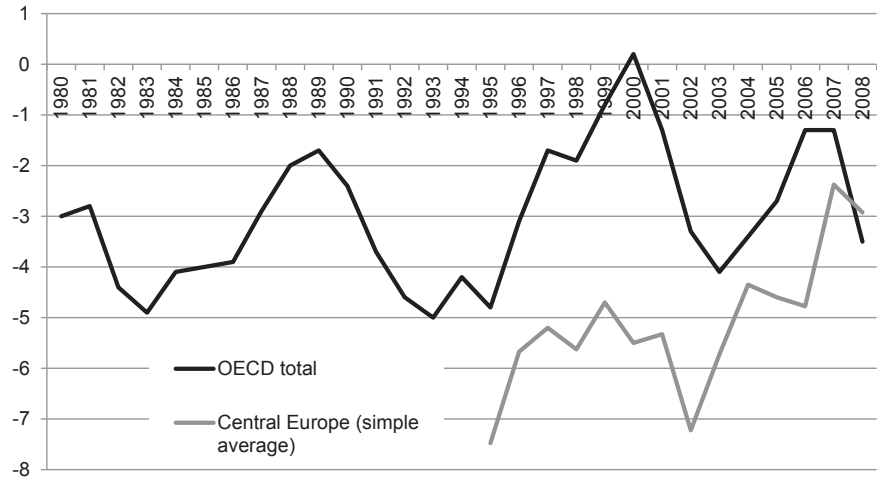
Deficit bias in CE



3 important sources of deficit bias:

- informational assymetry
- myopia
- common-pool theory

Markets react in a non-linear fashion and voters can not easily distinguish between bad luck and bad policies

We need also commitment devices

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Lessons from the crisis

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Lessons from the crisis (1)

Before the crisis:

- small shocks, linear world
- rational expectations
- steady-state
- sense of control
- efficient and self-regulating financial markets
- models without money and credit
- representative agents

Lessons from the crisis (2)

After the crisis:

- financial sector matters
- lot of non-linearities, amplifying mechanisms, vicious circles
- sustainability is not just about the Phillips curve and actual debt position
- „secular stagnation“ is not only a theoretical possibility
- fiscal dominance is dangerous

Bail-out costs

Table 5. Selected Advanced Economies: Financial Sector Support
(Percent of 2012 GDP, except where otherwise indicated)

	Impact on gross public debt and other support	Recovery to date	Impact on gross public debt and other support after recovery
Belgium	7.4	1.5	5.9
Cyprus	10.0	0.0	10.0
Germany[1]	12.8	2.0	10.8
Greece	19.7	4.3	15.4
Ireland[2]	40.5	4.4	36.1
Netherlands	14.6	10.0	4.6
Spain[3]	7.3	2.9	4.4
United Kingdom	6.7	1.5	5.2
United States	4.8	4.2	0.5
Average	7.0	3.7	3.3
$US billions	1,729	914	815

Sources: National authorities; and IMF staff estimates.

Costs are significant even without taking into account depressed output

Olivier Blanchard: For a long time to come, one of the priorities of macroeconomic policy will be slowly but steadily return debt to less dangerous levels, to move away from the dark corners.

Maurice Obstfeld: Absent adequate fiscal space, financial instability will be worse and may lead to price instability or sovereign default, which them selves will further impair the functioning of financial markets, at a great cost to the broader economy.

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Creating more fiscal space

Motivation

Monetary policy

Fiscal policy

Can FP learn from MP as far as institutional features are concerned?

Monetary vs Fiscal Policy

	Monetary policy	Fiscal Policy
Understanding the economy	New micro-founded models	Models from the seventies dominate in practice
Institutional set-up	Independent central banks	Political decision making
Objectives	Inflation targets	No clear consensus; some notion of sustainability
Operational rules	Short-term interest rates as an instrument and simple rules (optimal policy)	Tax smoothing in theory vs ad-hoc fiscal rules in practice
Dynamic behavior and expectations	Firmly anchored inflation expectations, importance of time-inconsistency	Importance of fiscal expectations recognized mostly in crisis times
Communication	Open communication, high transparency	Fiscal gimmickry is the rule not the exception
Theory vs Practice	Convergence	Important differences prevail

FP Objective

- **Theory**: optimal debt level (country specific), fiscal limit, tax-smoothing
- **Practice**: deficit bias

Elimination of the deficit bias (as efficiently as possible) should be the most important policy objective (the source of the bias is important!!!)

Main instrument: mix of simple fiscal rules and independent fiscal institutions

What kind of rules?

- Main anchor: country-specific long-run debt limit
- Counter-cyclical policy in the medium-run: deficit path calculated based on some form of structural balance
- Main operational instrument: expenditure ceilings (adjusted to discreationary revenue measures and cyclical expenditures)

Why do we need fiscal councils?

- Complements to fiscal rules
- Efficient commitment technology
- Information asymetry
- Delegation of technocratic aspects of FP
- Representing future generations
- Fiscal research
- Fiscal literacy
- Fiscal monitoring (monetary union)

The new European fiscal architecture

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„A camel is a horse designed by a committee".

Alec Issigonis

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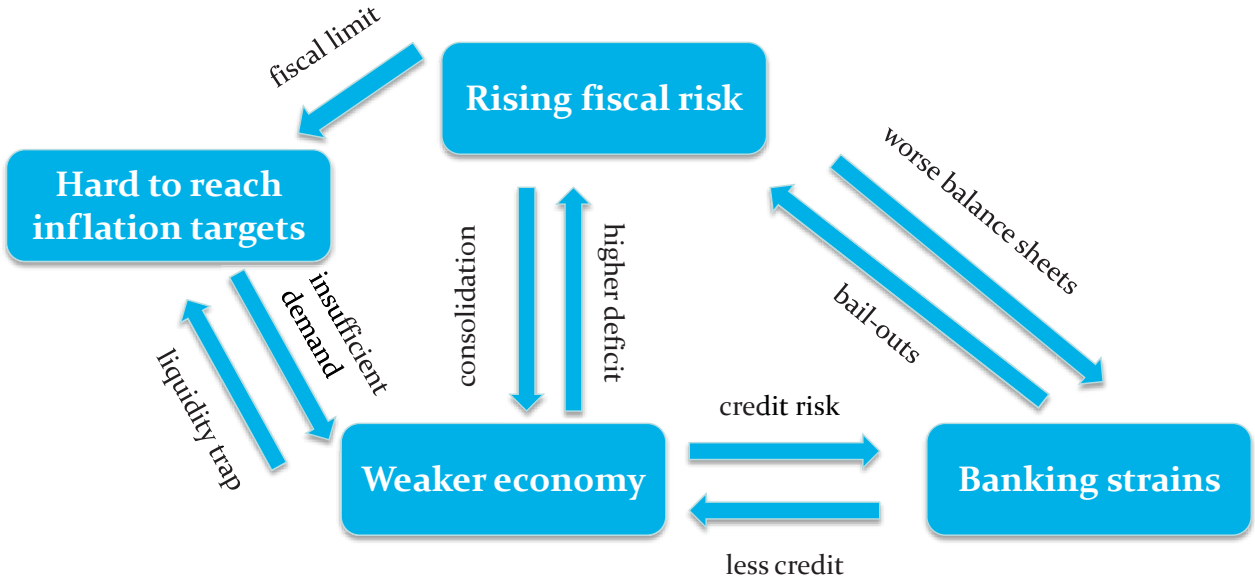
The Original Set Up

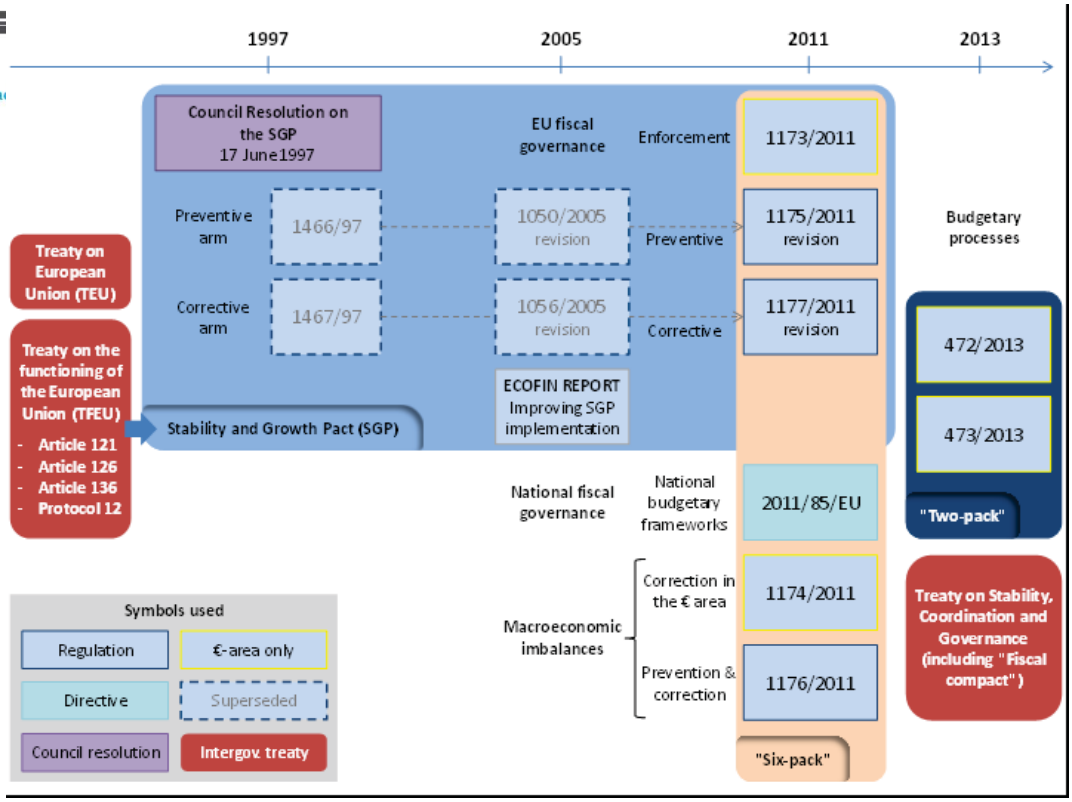
- Two dilemmas: Flexibility vs Credibility and Rules vs Discretion
- Collegiate decision making (among peers), not effective in 2003
- 3 main pillars: independent monetary authority, no-bail-out clause, SGP
- Very soft coordination of macro policies, no coherent framework for banking supervision

Main assumption: endogenous covergence and market discipline will do the job

Euro crisis feedback loops



EU fiscal framework



Numerical Fiscal Rules

- Excessive deficit – actual deficit over 3% of GDP
- Excessive debt – debt over 60% of GDP
- Debt reduction rule – reduction of the gap over 60% of GDP by 5% (one-twentieth) per year
- Benchmark structural adjustment – 0.5% of GDP
- Medium-term objective (MTO) – close to balance in structural terms (deficit up to 0.5/1.0% of GDP)
- Expenditure benchmark – constraint on real growth of adjusted expenditures

+ numerical definition of „significant deviation“

+ requirements for domestic multi-annual rules

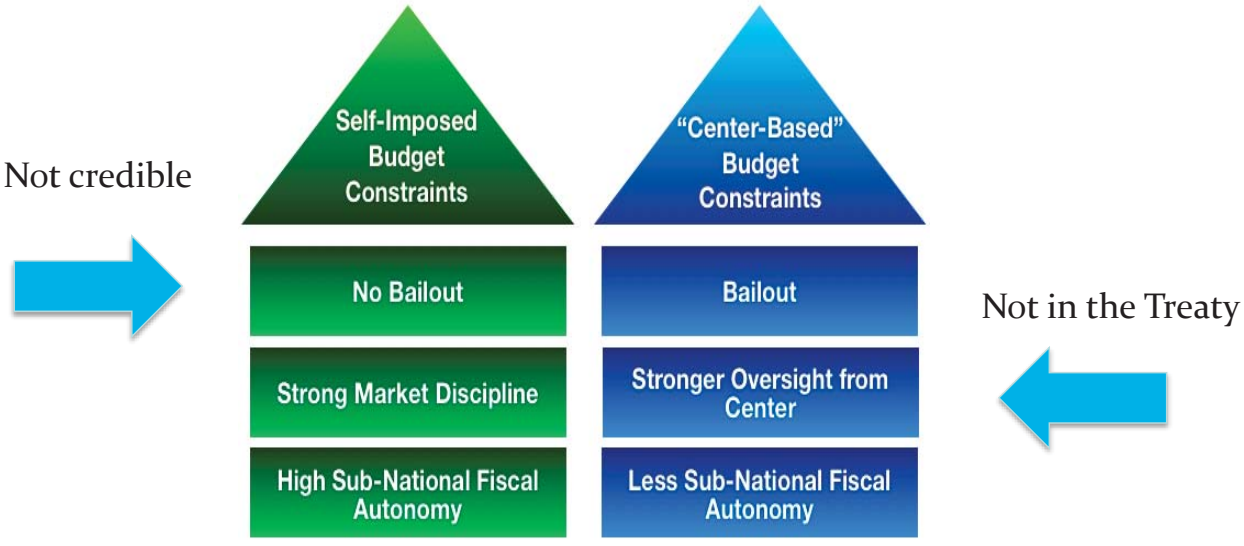
Rules for Transparency

- Tax expenditures
- Contingent liabilities
- Public corporations
- Capital injections
- Extra budgetary operations
- Macroeconomic forecasts

Institutional set-up

- More roles for the EC – recommendations regarding draft budgets, more weight in the EDP procedure
- More roles for independent fiscal institutions – macroeconomic forecasts, compliance with fiscal rules, triggering escape clauses
- Downside – more political pressures on the EC and selection of IFI council members

Role of the Center



European Framework vs Kopits-Symansky criteria

Positive	Neutral	Negative
Transparency +	Adequacy	Simplicity --
Flexibility +	Efficiency	Consistency -
		Definition -
		Enforceability -

Main lessons

- Design of the fiscal architecture is not only about budgets (bail-out rules, MIP, etc.)
- Do not set rules if you cannot measure them. Do not attach correction mechanisms to something you cannot measure.
- Simplify
- More potential role for IFIs: i) deficit targets, ii) assessment of effective action, iii) one-offs, iv) fiscal policy research
- Even more emphasis on debt and sustainability
- Separate objectives and instruments to avoid flexible interpretation and benevolent application

The Good, The Bad and the Ugly

- Higher transparency, more local ownership, synergies between rules and institutions, stricter enforcement mechanisms, more weight on debt
- Potential inconsistencies between the SGP and the Fiscal Compact, incentives to use one-offs to end the EDP, narrow definition of the structural balance
- Complexity, overregulation in terms of rules, calculation of structural balances in real-time to evaluate policy on a yearly basis

The Ugly

The Bad

The Good

EU set-up

	European FC	National FC
European rules to avoid gross errors	X	
Local fiscal rules		X

Problems:

1. Extremely complex European rules try to fine tune local budgets
2. Blurred policy messages (FC vs preventive arm of the SGP)
3. Comparative advantages of local IFIs are not utilized
4. Political influence on EC

Completing the „revolution“

Conclusions

- Limited fiscal space can lead to financial instability and price instability
- The key is in the institutional set-up. Both for well functioning currency union and the elimination of deficit bias.
- Independent fiscal institutions might play an important role.

Thank you for Your attention!

Council for Budget Responsibility

Imricha Karvaša 1
Bratislava 1
813 25
Slovakia

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Debt, Crisis, Debt and Recovery ?
The Case of the UK

Professor Nick Wilson
Bratislava, November 2014

ERC Enterprise Research Centre

Introduction

Nick Wilson
Some Background

Academic: Professor of Credit and Finance (A&F Division)
Academic: Director of the Credit Management Research Centre (CMRC)
Academic: Fellow of Enterprise Research Centre
Commercial : Director of CreditScorer Ltd (University Spin-Out 2001- 2008)
Policy: Better Payment Practice Group (1997-2007) (BIS)
Policy: Consumer Debt and Over Commitment : Expert Panel (BIS & Others)
Policy: Expert Economists Sub-Panel Breedon Task Force 2012 (BIS & Others)
Policy: Panel Member Independent Commission on Banking Forum
Policy: Family Business; SME Financing; Growth Finance; Crowd Funding

Debt, Crisis, Debt and Recovery ? The Case of the UK

Outline

1. Bratislava 2009 : "Debt, Crisis and Bankruptcy"
2. "Debt, Crisis, Debt and Recovery: The Case of the UK"
3. A fragile recovery
4. The household sector: debt and spending
5. The corporate and SME sector: borrowing for growth
6. Credit information infrastructure: consumer lending
7. Credit rating controversy: corporate and other
8. Regulation
9. Remedies and more radical solutions

Debt, Crisis, Debt and Recovery ? The Case of the UK

Presentation in 2009 focused on:

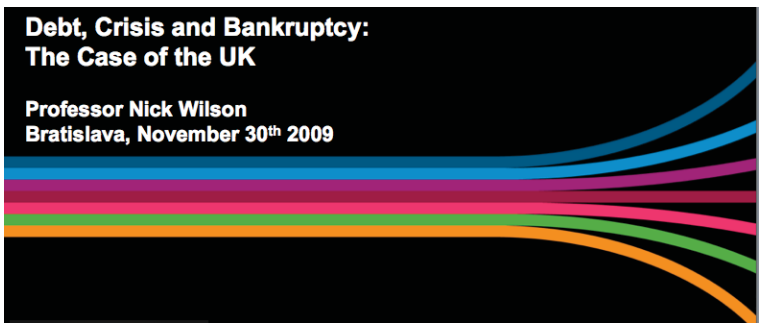
Growth of consumer debt pre-crisis

Lending decisions and credit information

Impact on real economy
- collapse in demand

Loss of income and assets for households

double-dip



Debt, Crisis and Bankruptcy (Bratislava, November 2009)

Micro-level lending decisions
– imperfect credit information becomes more distorted and unreliable as credit expands

Governance
– key decision-makers internal to the lender loose sight of the risk models underpinning their business model and decisions
- have insufficient understanding of 'complex financial instruments'

Globalisation and Financial Intermediation creates a new world
– old world methods and data applied to 'planet finance'
" *they overestimate the predictability of the past and hence underestimate the surprise of the future .." (Ferguson, 2008)*

Cutting and Splicing: Diversified or Correlated ?
- losing sight of the underlying asset (CDO; CDO[2]; CDO[3])
" *transferring ownership of mortgages from bankers who knew their customers to investors who did not"*

Regulation of new financial instruments
- nobody looking at the 'whole picture'; lack of transparency
- Failures of 'self-regulation' *"bankers deciding the rules for bankers"*

Debt, Crisis and Bankruptcy (Bratislava, November 2009)

Last slide (2009)…..

in addition to household debt and corporate debt

UK has seen an enormous increase in government debt (bail-out)

UK economy continues to be at risk of 'double-dip'

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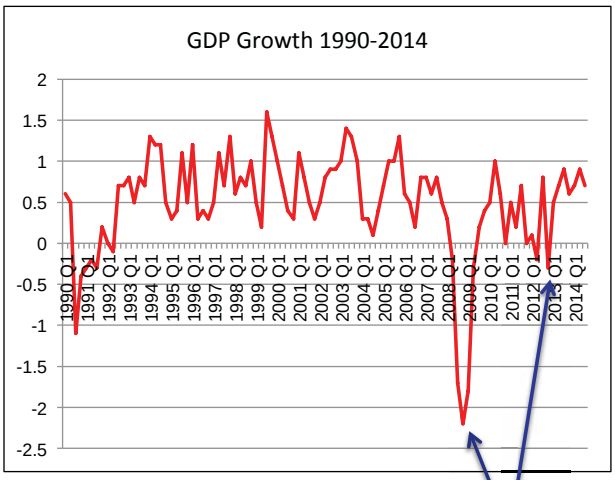
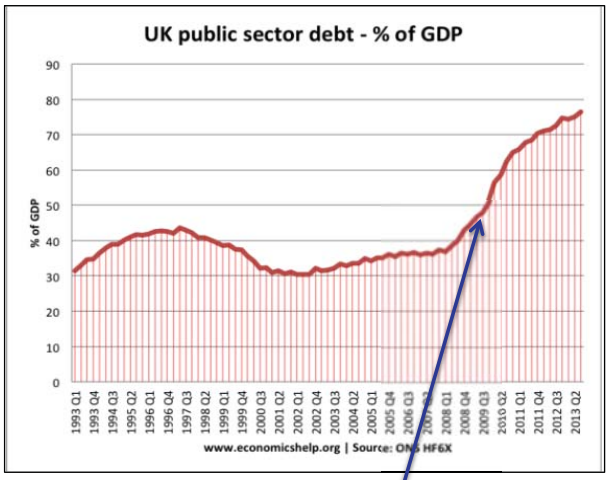
Debt, Crisis, Debt and Recovery ?





double dip

rise in debt

Debt, Crisis, Debt and Recovery ?

….. why can't the household sector recover ?

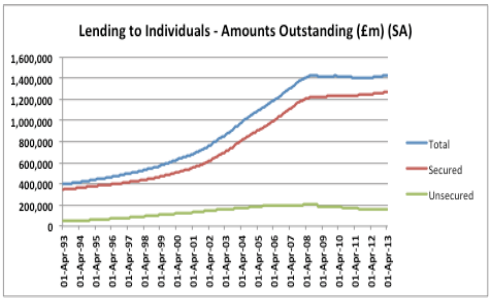
….. why can't the corporate sector grow ?

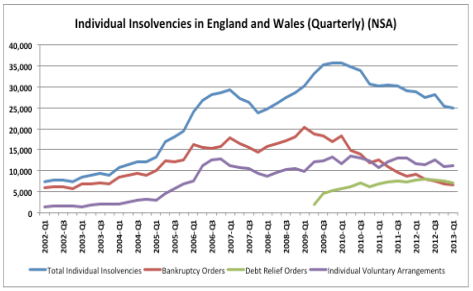
…… have we learned any lessons ?

….. are we near a triple dip ?

Debt, Crisis, Debt and Recovery ?

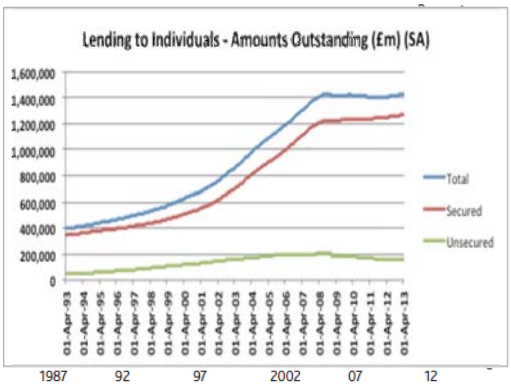
Household Sector





Debt, Crisis, Debt and Recovery ?

household debt



Recent statistics from the Bank of England have shown that, at the end of May 2014:

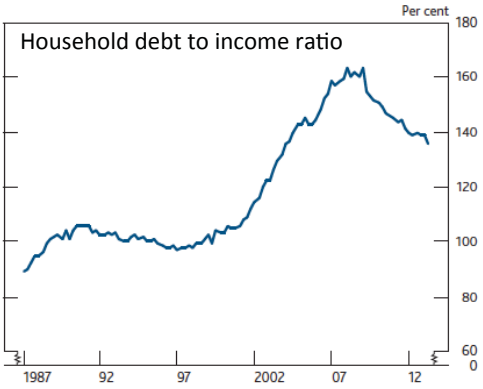
- Individuals in the UK owned £1.445 trillion;
- Outstanding secured (mortgage) debt stood at £12.84 trillion;
- Outstanding unsecured (consumer credit) debt stood at £160.6 billion
- Debt to income fell from a peak of 165% to around 140%

How ?

- House price bubble (perceived wealth)
- Automated decision making and CRA's (flaws in credit data)
- New entrants and increased competition
- Increased product base – market share scramble (liquidity)
- Risk based pricing and segmentation
- Bonus culture for short term profits (not long term losses)

Debt, Crisis, Debt and Recovery ?

household debt



Aggregate debt to income ratio disguises the real problem

- Income and debt distribution
- Share of risk

Financial crash – lending and consumer expenditure dropped
- recession

But ….. much of the household sector can't recover

…… unlike the banking sector, for households debt is not written off (debt purchase market; debt surveillance; negative equity)

…… unsecured debt can be secured by the debt buyer (charges on assets)

"the number of families with "perilous levels of debt repayments" could more than double to 1.2 million if interest rates rise faster than expected in the next four years and household income growth is weak and uneven".

" a financial system that thrives on a massive use of debt by households does exactly what we don't want it to do - it concentrates risk squarely on the debtor"

(House of Debt, 2014 Mian & Sufi p10.)

Debt, Crisis, Debt and Recovery ?

Consequences of over-indebtedness

Over-indebtedness has negative impacts : Economically and Socially

- Increases costs of borrowing in the future

Comparison of costs of credit for prime and sub-prime providers

Product	Type	Amount borrowed	Term	APR	Total credit charge	Total repaid
Unsecured personal loan	Prime – High St Bank	£1000	52 weeks	18.9%	£97	£1,097
	Sub Prime – online broker	£1000	52 weeks	50.4%	£239	£1,239
	Sub Prime – Home credit	£1000	52 weeks	246.5%	£768	£1,768

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Debt, Crisis, Debt and Recovery ?

Consequences of over-indebtedness

Over-indebtedness has negative impacts : Economically and Socially

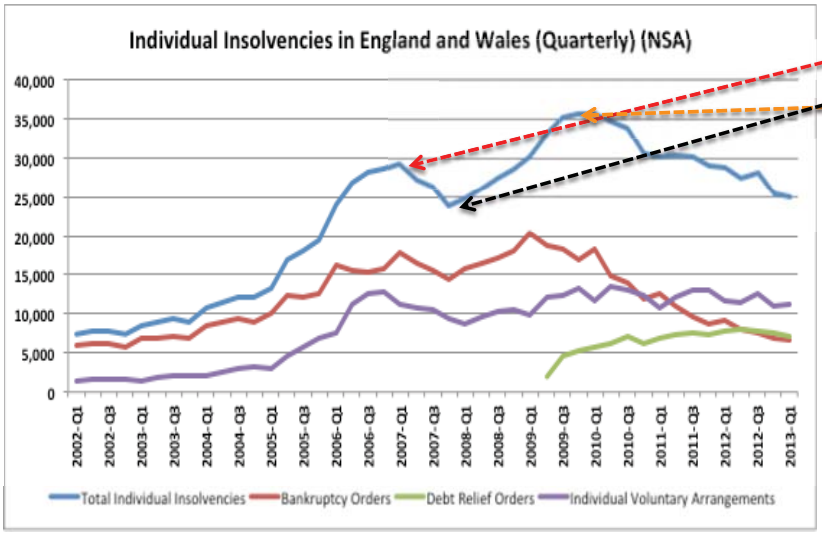
- Growth of expensive solutions (pay day lenders)

Interest rate

Rank	Company	Trades As	Most Recent Turnover	3 Year Turnover Growth	Most Recent Pre-tax profit	Representative APR
1	Wonga	Wonga	£ 309,290,000.00	5.4	£ 84,476,000.00	5853%
2	CashEuroNet UK LLC	Quick Quid, Pounds to Pocket	£ 198,101,370.00	3.2	N/A	1734%
3	Instant Cash Loans Ltd	The Money Shop, AdvanceBritain.com	£ 172,315,000.00	1.8	£ 34,608,000.00	2961%
4	MEM Consumer Finance Ltd	Payday UK, Month End Money	£ 123,112,910.00	2.0	£ 38,713,149.00	2160%
5	Express Finance (Bromley) Ltd	Payday Manager, Payday Express	£ 51,763,131.00	2.4	£ 16,641,763.00	2371%
6	WageDayAdvance Ltd	Wageday Advance	£ 39,518,114.00	2.5	£ 19,805,832.00	7069%
7	Lending Stream Ltd	Lending Stream, Zebit	£ 32,743,910.00	42.0	-£ 4,315,739.00	1562%
8	TxtLoan Ltd	MyJar	£ 22,419,439.00	20.5	£ 470,655.00	3943%
9	CFO Lending Ltd	Capital Finance One, CFO Lending	£ 19,635,755.00	24.9	£ 76,235.00	6759%
10	PDL Finance Ltd	Mr Lender	£ 17,491,214.00	3.3	£ 3,243,555.00	4849%

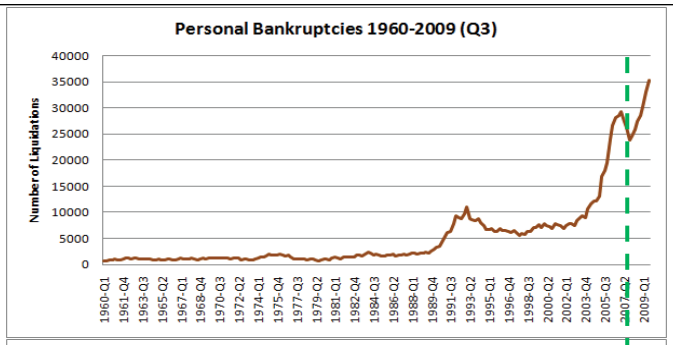
Consequences of over-indebtedness

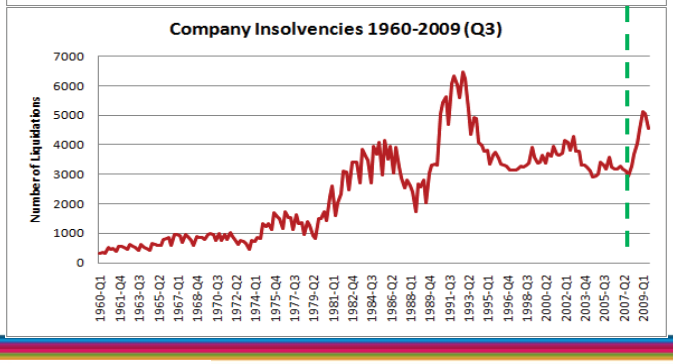
- Personal bankruptcies and debt management



Debt (over commitment)
Crisis
Debt (loss of income-assets) - Recession

Bankruptcies and Company Failure in the UK





Household Sector

Recession: bankruptcies start to rise again as a result of corporate failures: loss of jobs and in rises in unemployment

Corporate Sector

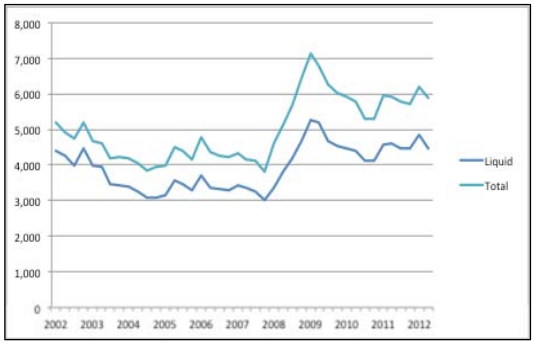
Recession: company insolvencies started to increase in the last Q of 2008 and continued in 2009.

Note : chart shows only liquidations. There has been a considerable increase in 'Administratton'

Debt, Crisis, Debt and Recovery ?

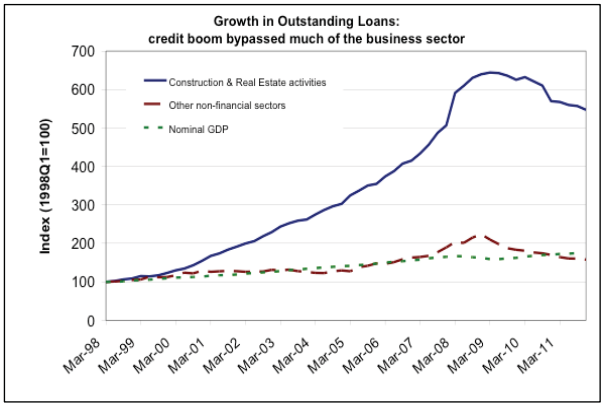
Corporate Sector (SME's)

Company bankruptcies 2002-2013

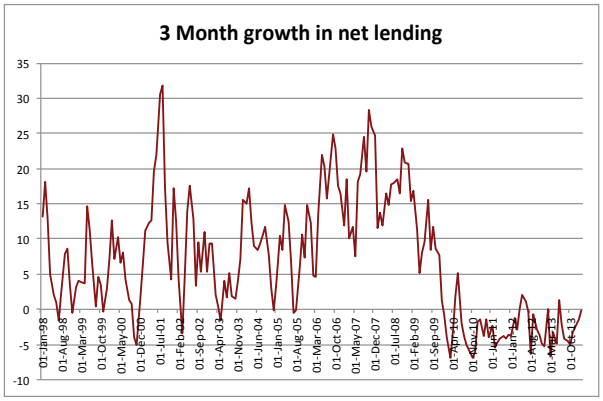


Debt, Crisis, Debt and Recovery ?

corporate debt



Growth in bank lending still negative



unlike consumer credit ….
SME lending characterised by :
- poor credit information; lack of competition;
- barriers to entry (in lending);
- absence of bond market and product innovation

The data for March 2104 showed a net fall of £21bn. Estimates suggest that the total amount of borrowings outstanding from private companies is around £277bn. Chart 1 provides the picture of bank lending to private companies by tracking the three-month growth rate in net lending to private non-financial companies

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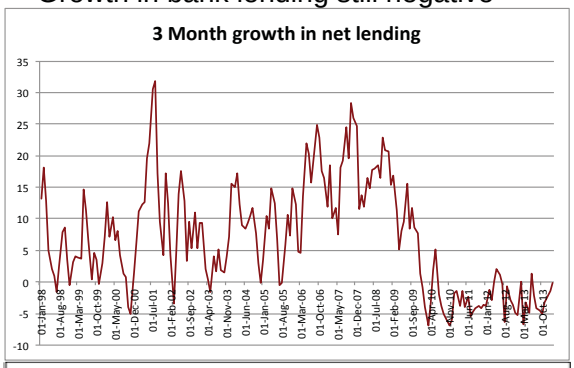
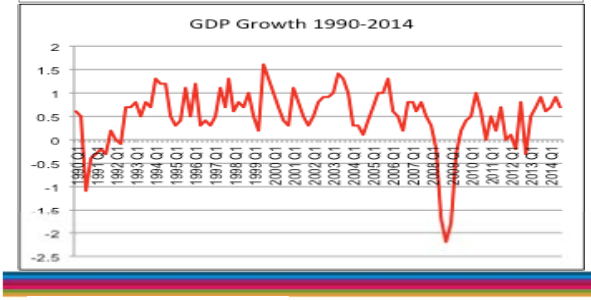
Debt, Crisis, Debt and Recovery ?

Growth in bank lending still negative





The economy is growing … but

"..in the past 18 months the five-year growth rate turned negative for the first time on record and the first quarter of 2014 saw the largest recorded fall in lending to companies in a single quarter "

Bank of England September 2014.

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Corporate Data: Significance of Trade Credit

Analysis of trade credit demand ar els

But risks associated with over trading

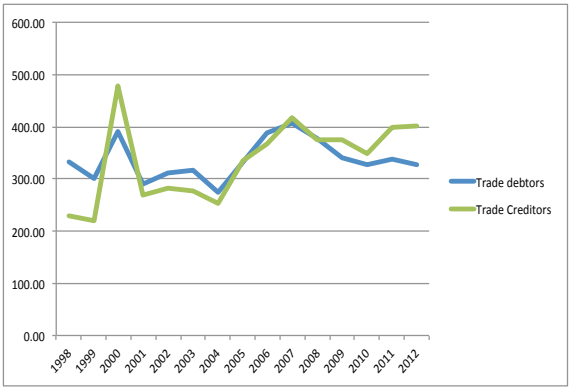
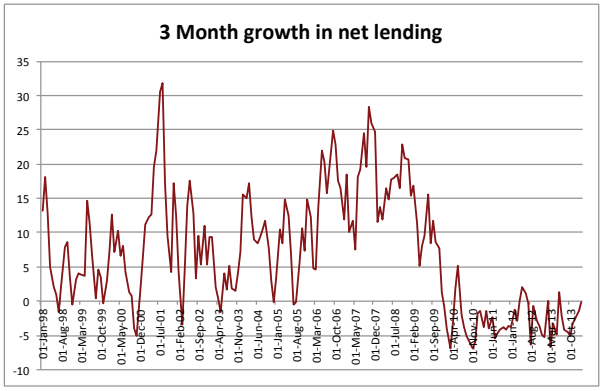


Chart 1 Panel Estimates: Aggregate Values of Trade debtors and Creditors on Balance Sheets (£ bn) constant 2010 prices

Trade credit outstanding £320bn (57 days credit)



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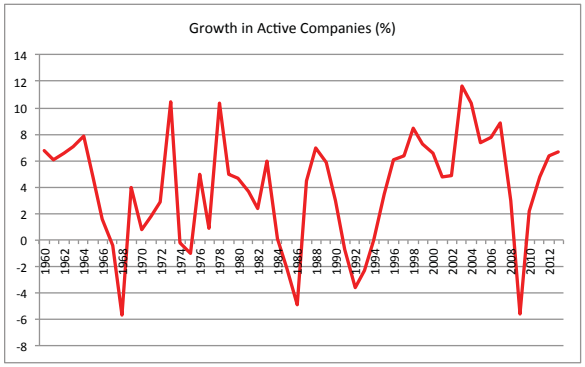
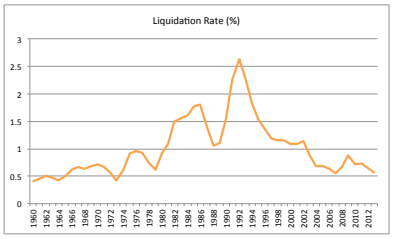
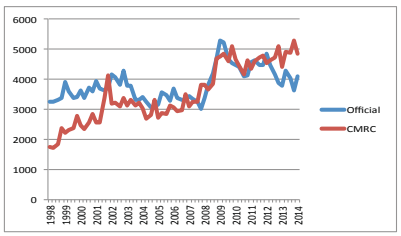
Corporate Data: Financial Distress and Insolvencies

Analysis of individual company filings 1998-2014 identifies exits via insolvency or voluntary closure/dissolution.







Official statistics: company formation and liquidation rate

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Debt, Crisis, Debt and Recovery ?

can alternative lending fill the gap and challenge banking ……

- growth in trade finance and supply chain finance innovations
- peer to peer lending (loan finance – growth; working capital)
- crowd funding (equity start-up and growth finance)
- private equity (growth); venture capital (start-up)
- business angel investment
- business bank and challenger banks

Debt, Crisis, Debt and Recovery ?

credit information: solution to informational asymmetries

Rating Agencies

Fitch Ratings
STANDARD &POOR'S
MOODY'S

Credit Reference Bureaus

EQUIFAX
TransUnion
Experian
A world of insight

Credit Rating Agencies, Public Credit Registries,
Private Credit Bureaux.

Debt, Crisis, Debt and Recovery ?

credit information and competition
consumer lending

The evolution of data sharing in the UK

Early 17th century – traders meeting in London coffee shops to share information on credit standing of local customers

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credit reference agencies: information

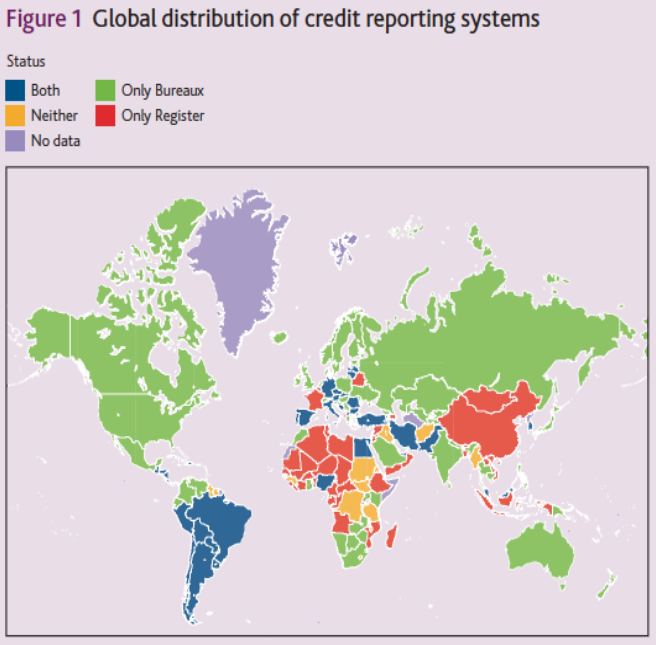
- Lenders will make a decision on whether or not to grant you credit on the basis of information supplied by the UK's three credit reference agencies (CRAs):

Callcredit EQUIFAX experian

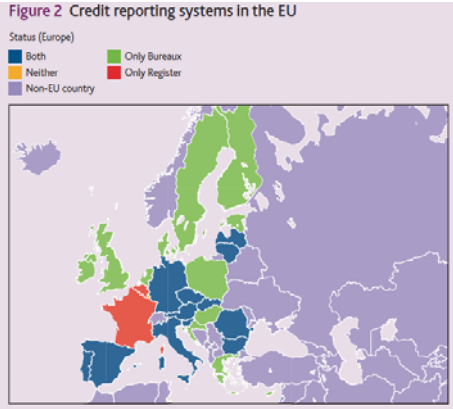
- CRAs compile credit histories from a host of different sources:
  - Electoral roll
  - County Court Judgements (CCJs)
  - How effectively past debts have been paid
  - Closed user groups: shared data

credit reference : shared data(bureaus)

credit reference data



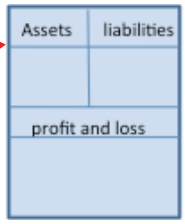
central registers versus private bureaus



Source: Bank of England

Debt, Crisis, Debt and Recovery ?

Consumer Credit Information Infrastructure



- CRA's have a **partial picture** of an individuals creditworthiness
  i.e. the liabilities side of the 'balance sheet'
- Only recently have major all major lenders begun to contribute
- Data is not 'real time' ; there is a lag (2,3 months)
- Crucially they cannot determine **DEBT/INCOME** ratios ('responsible lending')
- Much credit related data (over 50 million accounts, at least) is **'non-consensual'**
  i.e. not shared (except when in default). Especially bank account data
- There has been a problem of 'asymmetric information'
  - consumers cannot be relied upon to provide accurate details
    in credit applications of their existing commitments
    (5 accounts per person not disclosed at point of application; income exaggerated;
    especially when in debt problems)

Debt, Crisis, Debt and Recovery ?

credit information and competition
SME lending

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Debt, Crisis, Debt and Recovery ?

The Credit Ratings Controversy

Big 3 have a 95% market share ……

'transparency and competitiveness"

'consistency, timeliness, reactive/predictive

'issuer pays' versus 'subscriber pays'

a return to "shopping for credit ratings ……"

" imagine the pharmaceutical industry having six FDA's[1],
all competing to approve drugs …… everyone would be dead …"
(1. US Food and Drug Administration)

Fitch Ratings
STANDARD &POOR'S
MOODY'S

"the reason why the subprime bubble could happen, or the reason why the European debt crisis can happen is largely that very blind investors bought bonds relying on ratings, and didn't do their homework about what the real credit risk was ……"

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Debt, Crisis, Debt and Recovery ?

regulation

Bonuses and fraud

BoE's Mark Carney urges banker bonus overhaul

Sam Fleming

Bankers' salaries, not just their bonuses, should be threatened if they break the rules, the Bank of England governor has said.

Speaking in the wake of the $4.3bn fines for foreign exchange manipulation, Mark Carney said new pay structures were needed to rebuild trust in the banking system, and reduce risk-taking and short-term thinking.

Regulators slap $4.3bn fines on six banks in global forex probe

Daniel Schäfer and Caroline Binham in London and Kara Scannell in New York

Author alerts

Forex settlements

New banker rules 'could hurt London as a financial centre'

Bank of England plans to force badly-performing bankers to pay back bonuses could hurt London as a financial centre, the banking industry has said.

The new rules could put UK banks at a disadvantage compared with banks elsewhere, an industry body said.

Bankers may have to give back bonuses up to seven years after being awarded them.

Even if share awards have been cashed and spent, bankers could be asked to pay the money back.

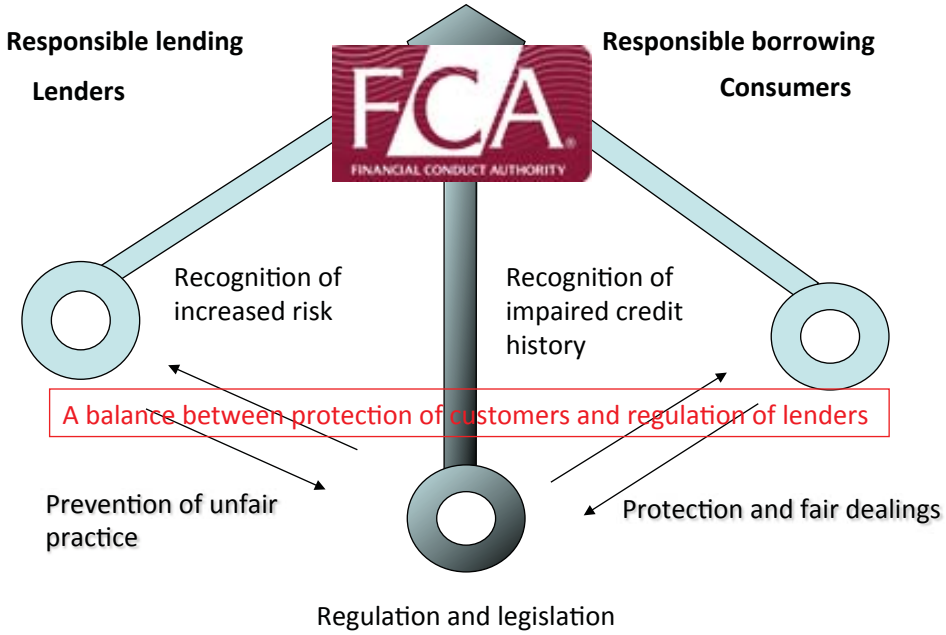
Many bankers receive a substantial chunk of their pay in the form of an annual bonus, which can be up to double their basic salary.

'Toughest regime'

Greedy bankers STILL don't get it: Bonus culture returns with a vengeance as, five years after the crash, 2,700 British bankers pocket an average of £1.6million

Mark Carney: Bankers should pay fines from bonus pots

Regulation and Legislation



Regulating Financial Services: Change in Policy Stance

OFT versus FCA...
Where will consumer credit land?

OFT	FCA
• Specific	• Holistic and customer Centric
• Legalistic	• Both rules **and principles** based
• Licence based regime	• Authorisation
• Local trading standards supervision	• Supervision
• No enforcement	• Enforcement
• Cheap	• Individual responsibility
• Unenforceable agreements	• Costly compliance burden
?	• Unfair terms in consumer contracts regulation
	• Product intervention
	• Thematic reviews

Debt, Crisis, Debt and Recovery ?

remedies and more radical solutions

Debt, Crisis, Debt and Recovery ?

Remedies

Macro prudential regulation:
can regulators identify potential 'bubbles" and intervene

Forbearance and debt forgiveness:
losses associated with bad lending and borrowing decisions are shared more equitably

Mian & Sufi (2014)

New types of financial (risk-sharing) contracts ;
to share gains and losses more equitably

Credit information infrastructure and 'independent' risk assessment
central credit register

Competition in financial services
non-bank (alternative lenders) – financial innovation

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Debt, Crisis, Debt and Recovery ? The Case of the UK.

Professor Nick Wilson

Bratislava

November 2014

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PRÍSPEVKY / PAPERS

KREATIVITA V EKONOMIKE

Martin ALEXY[1]

[1] University of Economics, Faculty of National Economy, Department of Finance, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia, e-mail: martin.alexy@euba.sk

ABSTRACT

Paper is discussing creativity as one of the factors of the development of economy. Aim of the paper is to analyse various approaches to measure the creativity; they are basis for modelling and measuring the contribution of creativity to economic growth. One of the approaches is to define creative industries, which are the key creative core of the economy. Another approach is focused on creative class as a proxy of human capital. The third approach seeks to measure creativity through composite creativity index.

Keywords: creative industry, cerative class, cerativity index

JEL codes: O10, O30, O34

1 Úvod

Jeden z prístupov ako merať kreativitu je definovať a analyzovať kreatívne odvetvia, ktoré sú kľúčovým kreatívnym komponentom ekonomiky a jej produkčnej schopnosti. Ďalší prístup sa sústreďuje na kreatívnu triedu zamestnancov ako reprezentáciu ľudského kapitálu. Tretí prístup sa usiluje komplexne hodnotiť kreativitu prostredníctvom indexu kreativity, ktorý je vytvorený ako kompozitný index viacerých faktorov.

2 Kreatívne odvetvia ako miera kreativity

Za kreatívne odvetvia sú považované tie odvetvia, ktorých podstatou je individuálna kreativita, zručnosti a talent. Následne sa predpokladá, že tieto odvetvia skrývajú najväčší potenciál pre ekonomický rast a vyváranie pracovných miest tým, že vytvárajú, akumulujú a používajú duševné vlastníctvo. Kreatívne odvetvia možno definovať ako: „Odvetvia, ktoré spájajú a prekrývajú oblasti umenia, kultúry, podnikania a technológii. Inak povedané tieto odvetvia vytvárajú cyklus tvorby, produkcie a distribúcie tovarov a služieb, ktoré využívajú duševný kapitál ako svoj primárny input. Vytvárajú základ pre aktivity a činnosti založené na poznatkoch.“ [11]

Pojem kreatívne odvetvie bol prvý krát predstavený v Austrálii v roku 1994 v správe ministerstva komunikácie a umenia venovanej politike podpory kultúry v Britskom spoločenstve národov. V roku 1998 sa ministerstvo kultúry, médií a športu vo Veľkej Británii venovalo mapovaniu kreatívnych odvetví. Analyzovalo tieto odvetvia z pohľadu vytvárania nových pracovných miest, podľa firiem pôsobiacich v danom odvetví a takisto podľa výstupov. Výstupmi boli napríklad hodnota exportu alebo odhad pridanej hodnoty daného odvetvia. Ministerstvo na tomto základe vybralo 13 sektorov kreatívnych odvetví: architektúra, obchod s umením a so starožitnosťami, remeselné činnosti, dizajnérstvo, módne dizajnérstvo, reklama, film a video, divadelné umenie, rádio a televízia, softvérové a počítačové služby, interaktívny softvér pre voľný čas, hudobný priemysel, vydavateľská činnosť.

Po roku 2000 vznikli viaceré štúdie analyzujúce kreatívne odvetvia s cieľom vytvoriť komplexný systém definovania a mapovania. Austrálske centrum excelentnosti pre kreatívne odvetvia a inovácie vypracovalo klasifikáciu na 3 úrovniach. Ich klasifikačný systém vychádza z rozdelenia kreatívnej aktivity ekonomiky do 6 kreatívnych segmentov. Ďalšími úrovňami boli tieto segmenty rozdelené do 14 tried (tzv. 3-číselná klasifikácia) a potom do 28 podtried (tzv. 4-číselná klasifikácia). Medzi 6 kreatívnych segmentov boli zahrnuté: 1. Hudobné a divadelné umenie, 2. Filmová, televízna a rozhlasová produkcia, 3. Reklama a marketing, 4. Vývoj softvéru, web stránok a multimédia, 5. Spisovateľská a vydavateľská činnosť, tlačové média, 6. Architektúra, dizajn a vizuálne umenie.

Klasifikácia kreatívnych odvetví podľa Správy OSN o kreatívnej ekonomike hovorí o 4 hlavných skupinách: kultúrne dedičstvo, umenie, média a funkčná kreativita. Tie sa rozdeľujú do 9 podskupín, ktorými sú: tradičné kultúrne dedičstvo, kultúrne miesta, vizuálne umenie, divadelné umenie, vydavateľské a tlačené média, audiovizuálne média, dizajn, nové média, kreatívne služby.

Tieto, ale aj ďalšie klasifikácie spravidla definujú skupinu „kľúčových“ kreatívnych odvetví, alebo tzv. kreatívne jadro ako hlavný zdroj kreativity a potom ďalšie úrovne, ktoré kreativitu šíria z tohto ďalej do celej ekonomiky. Pri posudzovaní a definovaní kreatívnych odvetví je významným faktorom prelievanie kreativity (tzv. spillovers) do ďalších odvetví. Príkladom môže byť prienik vedomostí, kde firmy môžu mať prospech z nových nápadov a objavov prichádzajúcich z iných sektorov.

3 Kreatívna trieda

Florida [3] definoval kreatívnu triedu ako kľúčovú silu ekonomického rozvoja post-industriálnych miest. Rozlišuje 3 skupiny kreatívnych zamestnaní: kreatívne jadro, kreatívni profesionáli, bohémovia. Podľa Floridovej „3T teórie“ sú determinantmi ekonomického rastu technológia, talent a tolerancia. Hoci podľa Floridu kreatívna trieda nemusia byť ľudia so skúsenosťami a zručnosťami a ani ľudia s vysokým vzdelaním, iní autori tento názor vyvracajú. Podľa viacerých empirických štúdií boli kreatívny kapitál výrazne prepojený s ľudským kapitálom, ktorý sa spravila hodnotí na základe dosiahnutého vzdelania. Rovnako kreatívna trieda ako aj miera vzdelania sa ukázali byť vhodnými indikátormi mestského a regionálneho rozvoja. Preto veľmi nerozlišujú medzi kreatívnou triedou a tradičnými ukazovateľmi vzdelanosti, nakoľko ich považujú za reprezentantov ľudského kapitálu. Medzi tieto empirické štúdie patria Glaeser [6], Marlet a van Woerkens [9], McGranahan a Wojan [10].

Alexy a Káčer [1] vychádzajúc z Floridovej koncepcie kreatívnej triedy definovali jednotlivé skupiny podľa klasifikácie ISCO-88 kódu tak, ako to uvádzajú naesledovné tabuľky.

Tabuľka 1 Kreatívne jadro

ISCO-88 kód	Popis	ISCO-88 kód	Popis
211	Špecialisti v oblasti fyzikálnych a prírodných vied	212	Špecialisti v oblasti matematiky, poistnej matematiky a štatistiky
213	Počítačoví špecialisti	214	Architekti, projektanti, zememerači, dizajnéri
221	Lekári	222	Špecialisti v ošetrovateľstve a pôrodníctve
231	Univerzitní a vysokoškolskí učitelia	232	Učitelia na stredných školách
233	Učitelia na základných školách a v predškolských zariadeniach	234	Odborní pedagogickí pracovníci špeciálnej výchovy

235	Ostatní odborní pedagogickí pracovníci	243	Knihovníci, archivári a kurátori
244	Špecialisti v spoločenských vedách		

Zdroj: Alexy, Káčer (2014)

Tabuľka 2 Kreatívne profesionáli

ISCO-88 kód	Popis	ISCO-88 kód	Popis
111	Zákonodarcovia	112	Ústavní činitelia
113	Predstavitelia obcí a vyšších územných samosprávnych celkov	114	Vedúci predstavitelia záujmových organizácií
121	Prezidenti a generálni riaditelia podnikov a organizácií	122	Riadiaci pracovníci (manažéri) vo výrobe
123	Riadiaci pracovníci (manažéri) ostatných oddelení	131	Bežní riadiaci pracovníci
223	Špecialisti v ošetrovateľstve a pôrodníctve	241	Špecialisti v oblasti financií
242	Špecialisti v oblasti práva	246	Špecialisti v náboženskej oblasti
311	Technici vo fyzikálnych a technických vedách	312	Špecialisti v oblasti počítačov
313	Elektrotechnici a zamestnanci v elektrotechnických odvetviach	314	Dispečeri a technici v lodnej a leteckej doprave
315	Kontrolóri bezpečnosti pri práci a kontrolóri kvality	321	Technici v oblasti zdravotníctva a farmácie
322	Odborní pracovníci modernej medicíny	323	Odborní pracovníci v ošetrovateľstve a pôrodníctve
324	Odborní pracovníci v oblasti tradičnej a alternatívnej medicíny	331	Pedagogickí asistenti a vychovávatelia na základných školách
332	Detské pestúnky, vychovávatelia a pedagogickí asistenti predškolských zariadení	333	Pedagogickí asistenti a vychovávatelia na osobitných školách
334	Ostatní pedagogickí asistenti a vychovávatelia	341	Odborní pracovníci finančných a obchodných činností
342	Makléri a sprostredkovatelia finančných transakcií a obchodu s cennými papiermi	343	Odborní pracovníci administratívnych činností
344	Štátni úradníci v daňovej oblasti, colní a hraničí inšpektori	345	Policajní inšpektori a detektívi
346	Odborní pracovníci v oblasti sociálnych vecí	348	Odborní pracovníci v oblasti religionistiky

Zdroj: Alexy, Káčer (2014)

Tabuľka 3 Bohémovia

ISCO-88 kód	Popis	ISCO-88 kód	Popis
245	Spisovatelia, kreatívni a interpretační umelci	247	Odborní pracovníci v oblasti umenia, kultúry a športu

Zdroj: Alexy, Káčer (2014)

4 Kompozitné indexy kreativity

Hodnotenie kreativity prostredníctvom rôznych indexov sa rozvinulo v poslednom desaťročí. Predlohou alebo inšpiráciou pre ich kompozíciu bola Floridova 3T teória. Florida je takisto priekopníkom indexu kreativity, ktorý ako kvantitatívne meradlo mohol slúžiť na porovnávanie viacerých krajín. Florida a Tinagli [5] vytvorili Euro-Creativity Index, ktorý pozostával z 3 sub-indexov: indexu technológie, talentu a tolerancie. Bol vyčíslený pre 14 európskych krajín.

Hui a kolektív [7] vytvorili rozsiahlejší Hongkonský index kreativity pre meranie kreativity v tejto ázijskej krajine. Hlavnými determinantmi rastu kreativity boli 4 typy kapitálu: inštitucionálny, ľudský, spoločenský a kultúrny kapitál. Nahromadené efekty vzájomných vplyvom medzi tými determinantmi sú výsledkami a outputmi kreativity. Tieto výsledky sa merali vyše 20 indikátormi. Takisto každý typ uvedeného kapitálu bol vyjadrený prostredníctvom 20-30 indikátorov. Hongkonský index kreativity bol potom vypočítaný prostredníctvom všetkých týchto indikátorov.

Bowen, Sleuwaegen a Moesen vytvorili [2] Kompozitný index kreatívnej ekonomiky. Ich zámerom bolo vzájomné porovnanie kreatívnej schopnosti vybraných regiónov. Východiskom boli 3 dimenzie kreativity: 1. Inovácie, 2. Podnikavosť a 3. Otvorenosť. Každá z dimenzií obsahovala 3 indikátory. Autori využili novú metódu endogénnych váh, ktorá mala vyjadriť to, že každý región môže mať svoje špecifiká a niektoré dimenzie kreativity budú výraznejšie rozvinuté než iné.

V čisto teoretickej rovine zostal návrh na vytvorenie Európskeho indexu kreativity autorov Kerna a Rungea [8]. Ich koncepcia bola založená na 6 subindexoch a následne na 32 indikátoroch spojených s kreativitou kultúrneho základu. Subindexmi boli: ľudský kapitál, otvorenosť a rôznorodosť, kultúrne prostredie, technológia, regulatívne opatrenia podporujúce kreativitu, a výsledky kreativity.

Florida a kolektív [4] rozšírili predchádzajúci index a vytvorili Globálny index kreativity (GCI). Podobne ako Euro-Creativity Index aj GCI sa skladá zo subindexov talent, technológia a tolerancia. GCI bol vytvorený pre 82 krajín, avšak nezachytával časový vývoj. Údaje využité v jeho výpočtoch sú z obdobia 2000-2009, avšak jednotlivé premenné sú vypočítavané z rôznych časových období.

Indexy kreativity navrhované Floridom sú najvhodnejšie na porovnávanie viacerých krajín. Hongkonský index kreativity je síce veľmi detailný, avšak relevantný len pre Hongkong, pretože zdroje vstupných dát nie sú koherentné pre medzinárodné porovnanie. Kompozitný index kreatívnej ekonomiky bol určený osobitne na porovnanie vybraných regiónov a je takisto nevhodný na medzinárodné komparácie.

Alexy a Káčer [1] vytvorili index kreativity pre európske krajiny. Východiskom pre kompozíciu indexu bol Euro-Creativity index (ECI), ktorý bol modifikovaný a výrazne rozšírený. Jeho hodnoty boli vypočítané vo forme panelových dát. Prierezová časť vychádza z 30 európskych krajín. Index je vypočítaný pre 12 ročné časové obdobie 2000-2011.

5 Záver

Kreatívna ekonomika sa dotýka postavenia inovácií v ekonomickom rozvoji. Tieto vedú k zmene ekonomickej výkonnosti, sú zdrojom ekonomického rastu. Európska únia rozvinula viaceré spôsoby merania inovatívnosti ako súčasť Lisabonskej stratégie. Indikátory inovácii na úrovni Európy boli vytvorené v rámci hlavných nástrojov, ktorými sú najmä Štatistika inovácií (CIS), Innobarometer a Európske inovačné skóre (EIS). Skúmanie, hodnotenie a meranie kreativity prispieva k pochopeniu vplyvu inovatívnych procesov ale aj vplyvu vzdelania

a ďalších dimenzií kreativity. Podľa môjho názoru kompozitné indexy kreativity sú vhodným zástupcom (proxy) pre porovnávanie tvorivej schopnosti ekonomík rôznych krajín.

Poďakovanie

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IMPACT OF EXPENDITURE ON RESEARCH AND DEVELOPMENT ON INDICATORS OF ECONOMIC PERFORMANCE OF THE V4 COUNTRIES IN COMPARISON WITH OTHER COUNTRIES OF THE EUROPEAN UNION

Marek ANDREJKOVIČ[1]

Daniela HRICOVÁ[2]

[1] University of Economics in Bratislava, Faculty of Business Economics with seat in Košice, Department of Quantitative Methods, Tajovského 13, 041 30, Košice, Slovakia, e-mail: marek.andrejkovic@euke.sk

[2] Czech university of Life Sciences, Faculty of Economics and Management, Department of Business and Finance, Kamýcka 129, 165 21, Praha 6, The Czech republic, e-mail: hricova@pef.czu.cz

ABSTRACT

The issue of the importance of expenditure on research and development within the countries has been studying a long time. In this paper we want to highlight the importance of this sector within the national economy and its comparison within each of the V4 countries with respect to other important countries of the European Union which could be used as pattern. In this paper we analyse the relationship of GERD to GDP and unemployment rate individually. The analysis is based on using correlation and regression analysis.

Keywords: GERD, GDP, unemployment

JEL codes: H52, J44, J64

1 Introduction

Since the establishment of the Lisbon Strategy, the European Union has been trying to achieve the target of 3% of expenditure on research and development in gross domestic product in the whole EU. According to the Strategy Europe 2020, this should be reached in 2020, which will result in the competitiveness of the member states' economies with regard to such countries as the USA or Japan [3]. Recently, much emphasis has been put on foreign companies, their involvement in research and their budgets on research activities. This is caused by the fact that science evolves rapidly and countries try to engage in competitive struggle not only by achieving positive economic indicators but also by engaging in research and development activities. Ultimately, many research papers proved that rising research and development expenditure improves other macroeconomics indicators – unemployment, gross domestic product and gross domestic expenditures on research and development. Based on the inspiration next is defined the purpose of this paper.

2 Literature Review

According to the International Labour Organization is unemployment defined in all OECD countries in accordance with the International Labour Organization Guidelines. Unemployment is usually measured by national labour force surveys and refers to persons who report that they have worked in gainful employment for less than one hour in the previous week, who are available for work and who have taken actions to seek employment in the previous four weeks [7]. Gross domestic expenditures on research and development (GERD) are sources for further

economic growth increasing as stimulation of basic and applied research creates big multiplication effects with long-term efficiency and presumptions for long-term economic growth in economics [6]. Gross domestic product (GDP) at market prices is the sum of the gross values added of all resident producers at market prices, plus taxes less subsidies on imports [8].

Regarding to the impact of GERD to macroeconomics indicator there are shown some studies. As an example, authors Metehan et al says that there is much controversy in the literature over whether military expenditures have a positive, negative or no relation impact on economic growth. The aim of their study was to determine the relationship between GDP and defence expenditure. The study analyses GDP and defence expenditures of the developed countries in years 1980–2007. They concluded that in the long term, according to the Pedroni cointegration test, there exists a relationship between defence expenditure and economic growth. By utilizing the Granger causality test, they found that defence expenditure is a factor in economic growth. Study validates the hypothesis that defence spending by economically developed countries positively contributes to their economics [5]. One research was about creating of econometric panel data model with techniques using dummy variables for simplification of regional competitiveness evaluation of selected Visegrad Four countries. There were researched variables as GERD, GDP, Gross fixed capital formation, Net disposable income of households [6]. Expenditures for research and development are current and capital expenditures (both public and private) on creative work undertaken systematically to increase knowledge, including knowledge of humanity, culture, and society, and the use of knowledge for new applications. Research and development covers basic research, applied research, and experimental development [10]. The other research was about analysis of trends estimation of gross expenditure on research and development in gross domestic product by the following sources of funds: the business enterprise sector, the government sector, the higher education sector, the private nonprofit sector and the abroad sector. The research covered Poland and the group of the EU15 and the EU28 countries in the period 1995-2010 [4]. The next purpose was to identify and analyse the trends in changes of expenditure on research and development in GDP of European Union member states, as well as an assessment of the deviations of expenditure on R&D in 2010 from the targets set in the Strategy Europe 2020 [3]. Based on the inspiration from previous studies, the following purpose is defined to analyse the impact of GERD in selected countries on two selected indicators: gross domestic product and unemployment rate too.

3 Data and Methodology

This part contains definition of main aim, two hypothesis and basic information about chosen countries and variables of research in this part. The main objective of this paper is attained by summarizing available knowledge and analyses:

The objective is to analyse the impact of gross expenditure on research and development in selected countries on two selected indicators: gross domestic product and unemployment rate.

This objective implies the main hypothesis of this research:

- We presume that an increase in GERD should lower the unemployment rate in the country.
- We presume that exists relationship between value of GERD and GDE in the country.

We mainly discuss V4 countries, and among other EU countries, we have selected Germany as the economic engine of the EU and Austria as the most advanced country in Central Europe. The paper follows three chief variables: GERD, GDP and unemployment rate. The selected

indicators are defined based on the descriptions employed by Eurostat, which was also the source of the following data:

- total volume of gross expenditure on research and development (GERD),
- gross domestic product in market prices (GDP),
- unemployment rate (UNP).

We observe the development for 6 countries, of which two (Slovakia (SK) and the Czech Republic (CZ)) formed a core group due to a very similar long-term development. The remaining members of the Visegrad (V4) group, Poland (PL) and Hungary (HU), are also included. These countries can be used for regional comparisons due to their proximity, cooperation and former inclusion in the Soviet block (meaning that they had a similar socio-economic development before 1989). A separate group consists of two countries that are used for comparison purposes: a representative of Central Europe (AT), which had never pertained to the socialist bloc and experienced a different economic development after World War II despite its geographic proximity, and Germany (GE), which is, in the capacity of an economic symbol of the EU, suitable for comparison. The available data were taken from Eurostat: in the case of unemployment and GDP from 1993 to 2013 and in the case of GERD from 1993 to 2012.

Accordingly, the basic sample data go from 1993 to 2013. Based on this, we created time series for the relevant countries as follows:

$GERD_i^c$, where $c = \{CZ, SK, PL, HU, AT, GE\}$ and $i = \{1,2,\ldots, n_{GERD}^c\}$ (1)

GDP_i^c , where $c = \{CZ, SK, PL, HU, AT, GE\}$ and $i = \{1,2,\ldots, n_{GDP}^c\}$ (2)

UNP_i^c , where $c = \{CZ, SK, PL, HU, AT, GE\}$ and $i = \{1,2,\ldots, n_{UNP}^c\}$ (3)

where is the number of GERD values for country c, stands for the number of GDP values for country c and is the number of UNP values for country c.

To some extent, the influence of GERD can be considered long-term and not limited to the calendar year in which it occurred. We can thus presume that the impact will extend to subsequent years. As such, we want to simulate the influence by employing an average of the relevant values over a number of years. In past, we worked with 3 years only [1], and the same methodology can be used for the GERD variable in this paper. We use the following method in which an average GERD is calculated for 3 consecutive year, and the resulting variable is denoted as GERD_AVE3:

$$GERD_AVE3_i^c = \frac{GERD_i^c + GERD_{i-1}^c + GERD_{i-2}^c}{3} \quad (4)$$

where $c = \{CZ, SK, PL, HU, AT, GE\}$ and $i = \{3,4,\ldots, n_{GERD}^c\}$.

Where impact is to be analysed over two consecutive years, a similar calculation is performed:

$$GERD_AVE2_i^c = \frac{GERD_i^c + GERD_{i-1}^c}{2} \quad (5)$$

where $c = \{CZ, SK, PL, HU, AT, GE\}$ and $i = \{2,3,\ldots, n_{GERD}^c\}$.

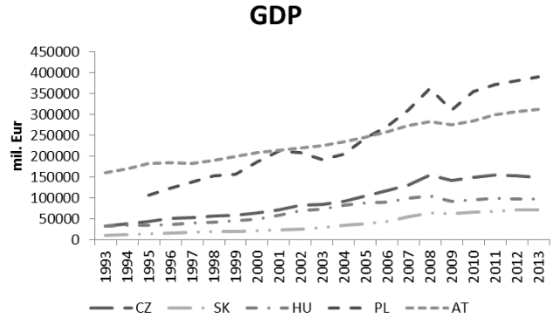
We also follow the development of the monitored indicators over time and the main statistical characteristics obtained through descriptive statistics. To capture interrelations, we employ correlation and regression analysis methods in accordance with the recommendations and

theory as laid out in Šoltés [9]. We compare the influence of GERD and derived variables (GERD_AVE2, GERD_AVE3) on GDP and UNP. Based on these results, we define a regression model that quantifies the annual influence of the variables on the relevant economic indicators.

4 Results and Discussion

Looking at the chosen indicators, we see a major influence of the economic crisis that hit European economies in 2008 and 2009. This influence is also evident in the GDP values of V4 countries. The GDP slump was particularly striking in Poland. We can also see that the German GDP fell in 2009 compared to 2008, but as early as 2010, the 2008 value was exceeded. As regards unemployment, the impact of economic crisis is negligible or even non-existent in Germany: after 2005, unemployment rate was falling steadily, and this development paused in 2008 and 2009 but resumed afterwards. Similarly, the Austrian unemployment rate stagnated in the relevant period, unlike other Central European countries. Among V4 countries, Slovakia displays the highest unemployment rate, while Poland experienced a similar development.

Figure 1 Development of GDP



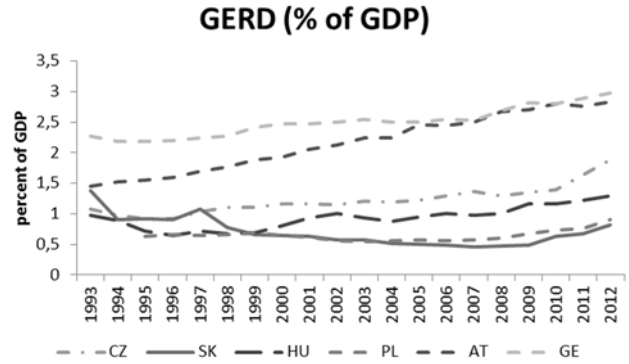
Source: own processing

Figure 2 Development of UNP

Source: own processing

In addition, we directly monitor the volume of RD expenditure in each economy. The values need to be standardized regardless of the country size so we have uniform indicators. For this reason, the chart displays the share of GERD on GDP. Slovakia has one of the lowest values among the monitored countries (V4 as well as the remaining ones). We can see that Germany and Austria report the highest value and that Austria has caught up with Germany recently.

Figure 3 Development of GERD



Source: own processing

We also observe the relationship between GDP and GERD (and the derived variables). We tested it using a correlation coefficient. In all cases, we identified a strong dependence. It does not matter whether we used the primary variable, or the derived moving averages. This can be

explained by the fact that there are no meaningful fluctuations in GERD values and that these influences are directly reflected in the evaluation of economic output of each country.

Table 1 Relationship GERD vs. GDP

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

GDP	GERD	GERD_AVE3	GERD_AVE2
	0.96941	0.97176	0.97085
CZ	<.0001	<.0001	<.0001
	20	18	19
	0.88178	0.87868	0.88582
SK	<.0001	<.0001	<.0001
	20	18	19
	0.96714	0.95381	0.96095
HU	<.0001	<.0001	<.0001
	20	18	19
	0.93790	0.93355	0.93717
PL	<.0001	<.0001	<.0001
	18	18	18
	0.99681	0.99425	0.99611
AT	<.0001	<.0001	<.0001
	20	18	19
	0.98489	0.98176	0.98396
GE	<.0001	<.0001	<.0001
	20	18	19

Source: own processing

Looking at the correlation between GERD and unemployment rate, we see a clear difference between the countries, even between Slovakia and the Czech Republic. In both cases, correlation coefficients are not statistically significant but the Slovak one is negative (when GERD expenditure rises, the unemployment rate falls), while the Czech one is positive (when GERD rises, we can expect the unemployment rate to increase). These conclusions would be generally applicable if correlation coefficients were statistically significant. However, in Germany and Poland, correlation coefficients are statistically significant and we see a relatively strong linear dependence. Accordingly, we can assume that an increase in GERD should lower the unemployment rate. This also holds for the relative share of GERD in GDP in the given year.

Table 2 Relationship GERD vs. UNP

Pearson Correlation Coefficients Prob > |r| under H0: Rho=0 Number of Observations				
UNP	**GERD**	**GERD_AVE3**	**GERD_AVE2**	**GERDvsGDP**
CZ	0.14024	0.06815	0.14485	0.29615
	0.5669	0.7882	0.5541	0.2183
	19	18	19	19
SK	-0.30415	-0.31073	-0.31088	-0.24032
	0.2055	0.2095	0.1951	0.3217
	19	18	19	19
HU	0.39501	0.46549	0.42666	0.39338
	0.1166	0.0597	0.0877	0.1183
	17	17	17	17
PL	-0.59192	-0.53723	-0.57295	-0.54440
	0.0157	0.0319	0.0203	0.0292
	16	16	16	16
AT	0.31930	0.26270	0.32389	0.36430
	0.1827	0.2923	0.1761	0.1252
	19	18	19	19
GE	-0.58700	-0.57804	-0.56670	-0.58294
	0.0082	0.0120	0.0114	0.0088
	19	18	19	19

Source: own processing

Based on the above, we quantify the influence of GERD on GDP in Slovakia and the Czech Republic. We work with the regression model GDP = f(GERD). The results are displayed in the next table (table 3).

Table 3 Regression models for CZ and SK

	CZ		**SK**	
	F Value	**Pr > F**	**F Value**	**Pr > F**
F-test for Model	280.76	<.0001	62.91	<.0001
	Parameter Estimate	**Pr > |t|**	**Parameter Estimate**	**Pr > |t|**
Intercept	26045	<.0001	2597.78518	0.5944
GERD	54.66412	<.0001	146.08128	<.0001

Source: own processing

We see that the impact of GERD is stronger in Slovakia than in the Czech Republic. The model also shows influence in other countries. The model is statistically significant as verified by the ANOVA F-test.

Table 4 Regression coefficient of GERD

	Parameter Estimate GERD	**Pr > |t|**
HU	71.44536	<.0001
PL	110.86863	<.0001
AT	21.88316	<.0001
GE	22.26058	<.0001

Source: own processing

We see that the highest influence prevails in Poland. Germany and Austria have the lowest coefficient, which, however is caused by higher GERD and GDP values compared to other countries.

For these countries, we identified a positive influence of GERD on GDP. With unemployment rate, the influence is not stable and identical for all countries. For Poland and Germany, GERD has a positive impact on the unemployment rate. For Hungary, Austria and the Czech Republic, the correlation coefficients are not statistically significant but are positive. That would mean that rising GERD supports higher unemployment rate. This assumption could be explained by the fact that GERD supports implementation of new technologies and procedures that may replace workforce or make the relevant industries less labour-intensive.

5 Conclusions

Macroeconomic indicators reveal much about the economic situation of various countries. They include data on GDP, inflation and unemployment. Relevant information can also be derived from the development of financial markets and currency, direct foreign investments, GERD and its share in GDP. In the Czech Republic, we observe efforts to motivate large foreign companies to engage in funding of science and research and related activities because it ultimately impacts the economic growth of the country.

GERD stood at EUR 266 898 million in the EU-28 in 2012, which was a 2.9 % increase on the year before, and 42.9 % higher than 10 years earlier (in 2002) - note that these rates of change are in current prices and so reflect price changes as well as real changes in the level of expenditure. In 2011, the level of expenditure in the EU-28 was 87.0 % of that recorded by the United States, 1.8 times as high as expenditure in Japan (in 2010) and still considerably above expenditure levels recorded in some other economies - for example, EU-28 expenditure was 2.7 times as high as in China (2011) [2]. Figure 3 shows that the share of GERD on GDP really grows in the selected countries too. The Czech Republic exhibits a sharp increase compared to other countries. Slovakia and Poland perform worst in this respect. Naturally, the credit crisis impacted not only the country where it started but its consequences are still felt across the world. The GDP development analysis confirmed that European countries were affected, too. Figure 1 shows that since 1993, GDP grew moderately in all countries except for Poland where we see alternating increases and decreases. However, in 2008 (the first year of the crisis), GDP fell in all countries selected for this paper. Figure 2 shows that employment plummeted in all countries except for Germany, which is an interesting observation. The employment indicator rose at the

beginning of the crisis, too. Of the selected county, Slovakia has the highest unemployment rate (almost 15% in 2013).

The defined objective was accompanied by the assumption of a strong linear employment between GERD and UNP and GDP. Accordingly, we can assume that an increase in GERD should lower the unemployment rate in the relevant countries. The assumption was confirmed by correlation coefficients that are statistically significant for Germany and Poland. Based on these results, it would be interesting to carry out further research and to test whether it is true that the higher GERD, the more jobs are lost, which increases the unemployment rate, and why it does not hold in all countries that otherwise have many shared characteristics such as cooperation and involvement in the European Union. these countries, we identified a positive influence of GERD on GDP. With unemployment rate, the influence is not stable and identical for all countries. For Poland and Germany, GERD has a positive impact on the unemployment rate. For Hungary, Austria and the Czech Republic, the correlation coefficients are not statistically significant but are positive. That would mean that rising GERD supports higher unemployment rate. This assumption could be explained by the fact that GERD supports implementation of new technologies and procedures that may replace workforce or make the relevant industries less labour-intensive.

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PRÍJMOVÁ A VZDELANOSTNÁ NEROVNOSŤ V EÚ A NA SLOVENSKU

Erika BARTALOSOVÁ[1]

[1] Ekonomická univerzita v Bratislave, Národohospodárska fakulta, Katedra financií/Ústav ekonómie a manažmentu, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia, e-mail: bartalos.e@gmail.com

ABSTRACT

Globalization that influences all socio-economic systems around the world has brought not just positive but also many negative phenomena. Among these we rank accelerated growth of particularly those economies that dispose of certain advantages compared to the others and often at the expense of the others. Furthermore, it is a problem of income polarization when most of the countries experience not just fall of income levels but also growing wage inequality. This inequality, however, leads to instability and insecurity, countries with higher rate of inequality have higher risk of social riots. Recently, increasing number of factors influencing income inequality has been identified among which education inequality is worth mentioning. The aim of our paper is to point at the development of income and education inequalities across the EU countries with special focus on income and education inequality in Slovakia and their mutual nexus.

Keywords: income inequality, Gini coefficient, education inequality, unemployment rate, medium net income rate.

JEL codes: I24, O15

1 Úvod

Globalizácia, ktorá ovplyvňuje celosvetové dianie, okrem svojich pozitív priniesla aj mnohé negatíva, ku ktorým by sme mohli zaradiť napríklad rýchlejší rast ekonomiky najmä tých krajín, ktoré na to majú dané predpoklady, ale často na úkor iných. Ďalej je to problém veľkého rozdielu medzi príjmami jednotlivých skupín obyvateľstva, t. j. problém príjmovej polarizácie. V súčasnosti sa stále častejšie hovorí o rastúcej príjmovej polarizácie - vo väčšine krajín sme svedkami nielen poklesu miezd, ale aj rastúceho rozptylu medzi mzdami, pričom táto nerovnosť vedie k nestabilite a neistote, krajiny s vyššou mierou nerovnosti majú väčšie riziko sociálnych nepokojov. K nerovnosti pristupujeme najčastejšie z ekonomického hľadiska, ktoré definuje nerovnosť cez čisto ekonomické premenné ako sú príjmy, majetok alebo zamestnanosť. V poslednej dobe však už začali skúmať aj vzdelávaciu nerovnosť ([13], [21]), ktorú možno definovať cez vzdelávacie úspechy, pretože vzdelávacia a príjmová nerovnosť sú navzájom závislé a možno povedať, že ide o začarovaný kruh. Príjmová nerovnosť totiž môže zabrániť prístupu k vzdelávaniu a na druhej strane nevhodná rodičovská výchova môže byť významnou prekážkou dosiahnutia rovnosti príležitostí, čo ovplyvňuje aj vzdelanostnú nerovnosť ďalších generácií, čo má zasa vplyv na príjmovú polarizáciu.

2 Vývoj príjmovej nerovnosti v krajinách EÚ

V posledných rokoch výrazne rástli rozdiely v zárobkoch vo všetkých krajinách sveta a výraz "príjmová polarizácia" sa stal veľmi populárnym z viacerých dôvodov. Napriek tomu, že na základe rôznych štúdií, vychádzajúcich predovšetkým z cross-country panelových dát [15], [9]

existujú aj pozitívne efekty príjmovej polarizácie (vyššie nerovnosti podporujú rast), tento jav je však vnímaný skôr negatívne. Na negatívny vzťah medzi nerovnosťou príjmov a hospodárskym rastom poukázali ekonómovia už v 90. rokoch minulého storočia [19], [17], [5], [7]. Najnovšie štúdie [1], [2], [16] ukazujú, že vplyv príjmovej nerovnosti na hospodársky rast je nelineárny, t. j. má pozitívny vplyv v prípade vysoko príjmových krajín, ale negatívne ovplyvňuje hospodársky rast nízko príjmových krajín.

Nerovnomernosť príjmového rozdelenia v spoločnosti vedie predovšetkým k sociálnym konfliktom [8] a k obmedzeniu hospodárskeho rastu. V dôsledku postupnej príjmovej polarizácie totiž základ ekonomiky už nevytvára spotreba strednej triedy obyvateľstva a tým v podstate nemožno udržiavať ani trvalý hospodársky rast. Tento jav bol pozorovaný už v roku 1980 v Spojených štátoch amerických a vo Veľkej Británii. Spojené štáty americké zaznamenali prekvapivý nárast príjmovej nerovnosti už v druhej polovici roka 1980, kedy sa začali znižovať disponibilné príjmy u chudobnejších rodín, príjmy strednej triedy stagnovali a príjmy bohatších domácností silno a rýchlo rástli. V ostatných priemyselne vyspelých krajinách došlo k dramatickému nárastu príjmových disparít domácností až po roku 1980. V mnohých európskych krajinách k väčšej nerovnosti prispela aj rastúca nezamestnanosť mladých a menej skúsených pracovníkov [22]. Na základe luxemburskej štúdie [23] rozdiely disponibilných príjmov medzi rokmi 1980 a 2000 rástli vo väčšine bohatých krajín. Pomocou Giniho koeficientu[1] poukázali na to, že príjmová polarizácia vzrástla o 18 alebo viac percent vo Švédsku, Fínsku, Belgicku, Spojených štátoch amerických a vo Veľkej Británii. Krajiny ako Holandsko, Francúzsko, Švajčiarsko a Írsko zaznamenali pokles príjmových disparít. Podľa výskumníkov OECD však veľká časť nárastu nerovností bola vyvolaná zvýšením trhových príjmov[2] [4].

Gini koeficient, ktorý je najčastejšie používaným ukazovateľom na charakteristiku príjmových rozdielov v národných i komparatívnych kontextoch, patrí aj na úrovni Európskej únie medzi hlavné indikátory. Na základe poslednej dostupnej databázy štatistických údajov Európskej únie (EU SILC – European Union Statistics on Income and Living Conditions) , pochádzajúcej z roku 2013, hodnota Giniho koeficientu na úrovni EÚ-28 v prípade disponibilných príjmov po zarátaní sociálnych transferov a zaplatení daní a odvodov bola v priemere na úrovni 30,5 % (na základe odhadov Eurostatu príjmová nerovnosť v EÚ-15 v roku 1995 bol na úrovni 31,0 %). Ak vychádzame z disponibilných príjmov pred poskytnutím sociálnych transferov okrem starobných a pozostalostných dávok, diferenciácia bola výraznejšia, hodnota koeficientu bola totiž na úrovni 36,1 %. Na základe údajov grafu 1 možno konštatovať, že premiantom v oblasti nízkych nerovností príjmov je Slovensko (24,2 %). Za ním nasleduje Slovinsko (24,4 %), Česká republika (24,6 %) a Švédsko (24,9) takisto patrí medzi krajiny s najnižšími rozdielmi v príjmoch. Medzi krajiny s najvyššími nerovnosťami patrí Lotyšsko (35,2 %), Litva (34,6 %), Grécko (34,4 %) a Portugalsko (34,2 %).

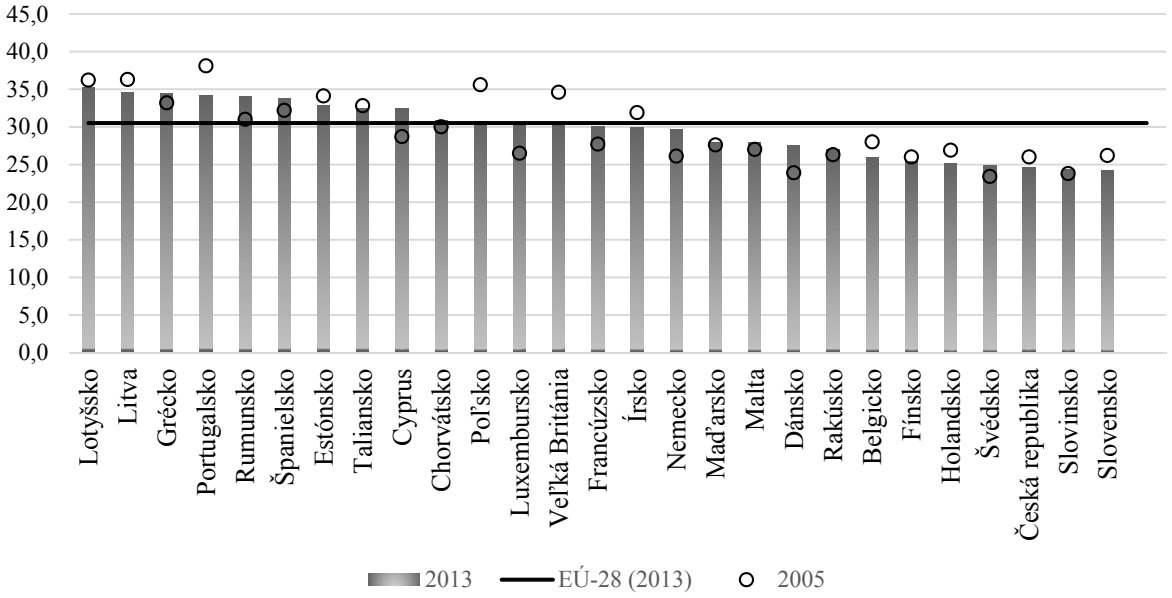
Zaujímavá je však hodnota koeficientu (viď v tabuľke 1) v prípade disponibilných príjmov pred poskytnutím sociálnych transferov okrem starobných a pozostalostných dávok a takisto aj v prípade, keď je indikátor založený na definícii príjmu, ktorá nezohľadňuje žiadny zo

[1] Giniho koeficient je založený na porovnaní kumulatívnych podielov osôb v populácii a zodpovedajúcich kumulatívnych podielov príjmov. Môže nadobúdať hodnoty od 0 do 1 (resp. od 0 do 100 v percentuálnom vyjadrení), pričom 0 indikuje stav absolútnej rovnosti (všetci majú rovnaký príjem) a 1, resp. 100 zase situáciu dokonalej nerovnosti (celkový príjem v populácii pripadá len jednej osobe).

[2] V analýzach príjmového rozloženia sa zvyčajne rozlišuje medzi dvoma konceptmi príjmu. Prvým je disponibilný príjem domácnosti (after-tax, after-transfer income), čo predstavuje čistý príjem po odrátaní dávok, daní a odvodov, t.j. príjem, ktorý má domácnosť k dispozícii. Druhým konceptom je tzv. trhový príjem domácnosti (pre-tax income). Ide o príjem, ktorý by vznikol v prípade, ak by ľudia neplatili žiadne dane a odvody a nepoberali by žiadne dávky.

sociálnych transferov, t. j. ani dôchodky (starobné a pozostalostné dávky). Rozdiely sú výrazné a potvrdzujú i dôležitosť poskytovania sociálnych dávok, predovšetkým dôchodkov, ktoré najviac ovplyvňujú vývoj miery nerovnosti v jednotlivých krajinách. Naša krajina v obidvoch prípadoch vykazuje najnižšie hodnoty, s príjmovou nerovnosťou na Slovensku sa však budeme zaoberať v ďalšej časti nášho príspevku.

Graf 1 Hodnota Gini koeficientu disponibilných príjmov po zarátaní sociálnych transferov a zaplatení daní a odvodov v krajinách EÚ-28



Prameň: [24]. Spracovanie vlastné.

Tabuľka 1 Krajiny s najvyššou a najnižšou hodnotou Gini koeficientu (2013)

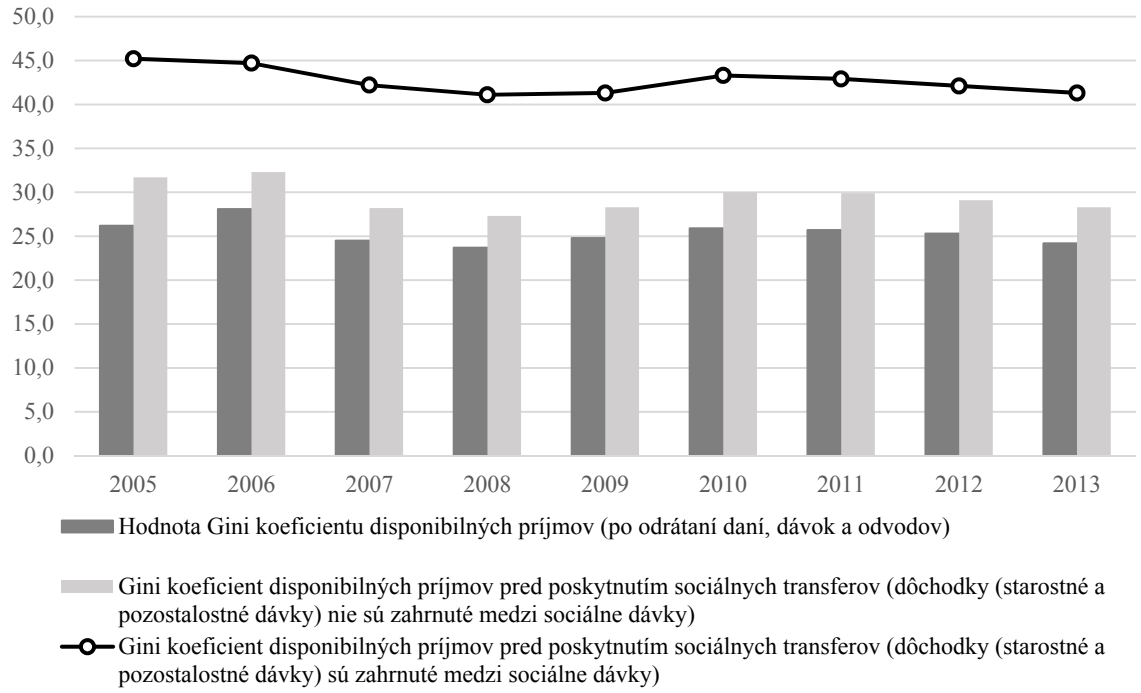
Gini koeficient disponibilných príjmov pred poskytnutím sociálnych transferov (dôchodky (starostné a pozostalostné dávky) **sú zahrnuté** medzi sociálne dávky)		Gini koeficient disponibilných príjmov pred poskytnutím sociálnych transferov (dôchodky (starostné a pozostalostné dávky) **nie sú zahrnuté** medzi sociálne dávky)	
Krajiny s najvyššou hodnotou Gini koeficientu			
Grécko	61,6	Litva	40,2
Nemecko	56,4	Veľká Británia	39,8
Portugalsko	55,9	Dánsko	38,9
Veľká Británia	54,5	Španielsko	38,8
Krajiny s najnižšou hodnotou Gini koeficientu			
Slovensko	41,3	Slovensko	28,3
Malta	43,8	Česká republika	28,8
Slovinsko	44,1	Slovinsko	30,6
Česká republika	44,1	Holandsko	31,4

Prameň: [24]. Spracovanie vlastné.

2.1 Príjmová polarizácia na Slovensku

Čo sa týka miery polarizácie Slovenska, na základe databázy EU SILC rozhodujúcim obdobím, počas ktorého došlo k otvoreniu príjmových nožníc, bolo obdobie medzi rokmi 1992 a 1996. V tomto období Gini koeficient vzrástol o viac než 32 %. Príjmová nerovnosť v období od roku 1996 až 2010 sa zvýšila len nepatrne – hodnota Giniho koeficientu sa zvýšila len o 0,013 bodov z 0,250 na 0,263, pričom najnižšia hodnota bola vykazovaná v roku 2007 (0,245). Negatívny vývoj na trhu práce v dôsledku finančnej a hospodárskej krízy však viedol k opätovnému nárastu diferenciácií pracovných zárobkov. Medzi najviac viditeľné aspekty, vyvolávajúce zvýšenú nerovnosť, patrí napríklad zvýšená zadlženosť domácností, zvýšenie podielu terciárne vzdelaných osôb s vyššími príjmami alebo zníženie priemerného počtu členov domácností najmä u rodín s vyššou úrovňou vzdelania. Riziko chudoby sa líši v jednotlivých skupinách obyvateľstva. Vyššia miera chudoby je pozorovateľná napríklad u rómskej populácie, pre ktorú je tiež príznačná vyššia miera nezamestnanosti, negramotnosti a chorobnosti.

Graf 2 Príjmová nerovnosť na Slovensku v rokoch 2005-2013 (v %)



Prameň: [24]. Spracovanie vlastné.

Vo vyspelých krajinách zvyšovaniu príjmovej nerovnosti sa venuje veľká pozornosť predovšetkým z dôvodu jej negatívneho vplyvu na nárast relatívnej chudoby a na zdravie. V Anglicku napríklad M. Marmot (2010) zistil, že ľudia žijúci v najchudobnejších štvrtiach zomierajú o sedem rokov skôr než ľudia žijúci v najbohatších častiach krajiny [20]. Okrem iného príjmová polarizácia však vplýva aj na tehotnosť mladistvých a na všemožné druhy ochorení, na drogovú závislosť, ako i na úroveň kriminality. Veľká pozornosť je venovaná aj z dôvodu ohrozenia budúceho statusu a príjmov budúcich dôchodcov, poklesu domácej i globálnej spotreby, ako aj z dôvodu predpokladanej potreby zdrojov pri riešení zdravotných a iných problémov v dôsledku zmeny štruktúry obyvateľstva.

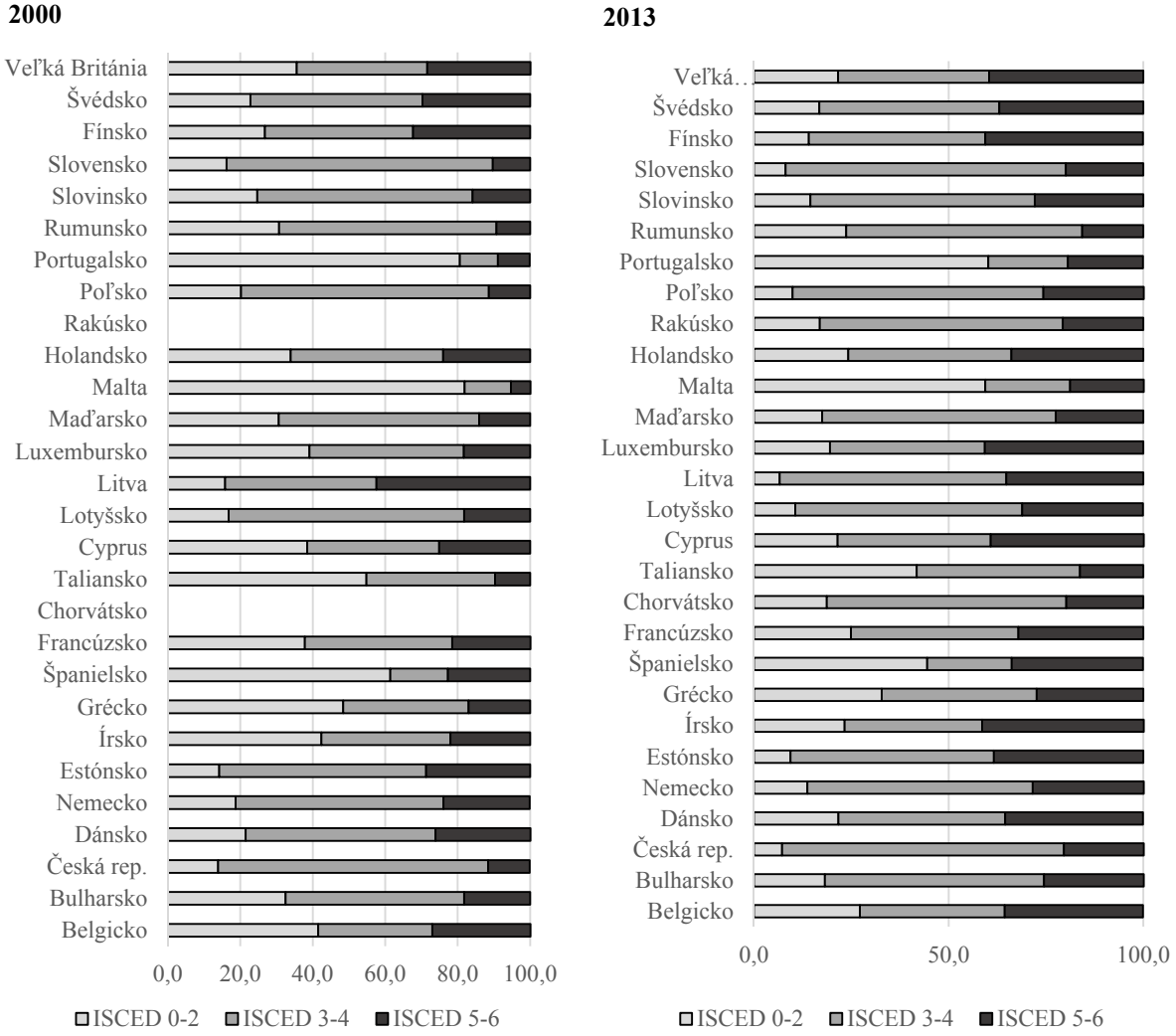
3 Vzdelanostná nerovnosť v krajinách EÚ

Pozitívne účinky vzdelávania boli široko uznávané aj v ekonomickej literatúre (pozri napríklad [11], [14]). Z individuálneho hľadiska vzdelanejší ľudia majú viac možností na trhu práce

s vyššou odmenou [12], ale tiež dochádza napríklad k lepšiemu zdraviu, k zvýšeniu blahobytu a k zníženiu trestných činov. Vzdelávanie má široké efekty aj na sociálnu súdržnosť a politickú participáciu [10], takže nepeňažné dopady sú takisto dôležité.

Vďaka novým informačným a komunikačným technológiám ľudia si zvykli na rýchlejšie možnosti komunikácie a nové technológie umožňujú získať vzdelávanie aj „bez hraníc". Počas posledných desaťročí úroveň vzdelania sa výrazne zlepšila vo všetkých krajinách Európskej únie (Graf 3). Napriek tomu existuje nerovnomerné rozdelenie možností predovšetkým vysokoškolského vzdelávania medzi ľuďmi z bohatých a z chudobnejších rodín. V roku 2013 v krajinách EÚ (EÚ-28) najväčšiu časť populácie podľa dosiahnutého stupňa vzdelania (46,7 %) tvorili obyvatelia s vyšším sekundárnym a postsekundárnym vzdelaním (ISCED 3-4), absolventi terciárneho stupňa vzdelávania (ISCED 5-6) tvorili 28,5 % obyvateľstva a napriek novým trendom a možnostiam 24,8 % obyvateľstva malo ukončené len základné alebo nižšie sekundárne vzdelanie (ISCED 0-2).

Graf 3 Vzdelanostná štruktúra obyvateľstva EÚ - porovnanie roku 2000 a 2013 (25-64 rokov)



Prameň: [25]. Spracovanie vlastné.

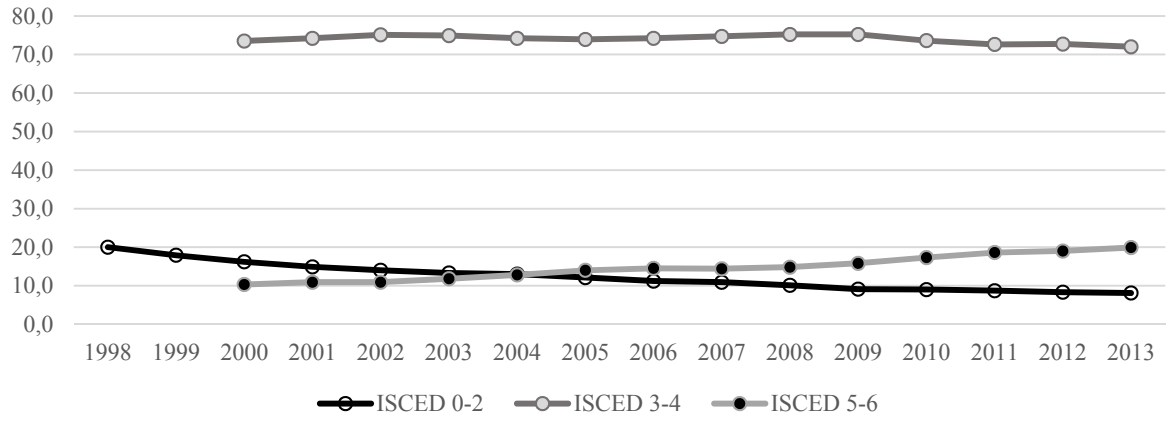
Vzdelanostná nerovnosť je častou témou diskusií aj Európskeho parlamentu a Rady Európskej únie. Podľa Rady EÚ inkluzívne vzdelávanie sa spája s princípmi rovnosti, sociálnej spravodlivosti, demokracie a participácie. Znižovanie školskej neúspešnosti a nerovnosti je rozhodujúce nielen na dosahovanie ekonomického rastu a konkurencieschopnosti, ale tiež na elimináciu chudoby a na podporovanie sociálnej inklúzie [6].

Na meranie vzdelanostnej nerovnosti sa využívajú rôzne indikátory, medzi ktoré patrí predovšetkým doba trvania školskej dochádzky meraná v rokoch vzdelávania. Hlavnou výhodou tejto metódy je, že počet rokov školskej dochádzky je ľahko vypočítateľný a je porovnateľný medzi jednotlivými krajinami. Na druhej strane však tento ukazovateľ vychádza len z kvantity bez ohľadu na účinnosť vzdelávania, a to z hľadiska výsledkov, čo sa týka rôznych kariérnych úspechov. Druhý, najviac využívaný ukazovateľ (aj v prípade EÚ; Graf 3) je založený na sledovaní dosiahnutej úrovne formálneho vzdelania. Výhodou tohto indikátora je, že špecifikuje aj typ vzdelávania, ktorý však môže byť rozličný v jednotlivých krajinách vzhľadom k vysokému stupňu diferenciácie vzdelávacích systémov. Tento spôsob merania vzdelanostnej nerovnosti je teda náročný na roztriedenie údajov na základe vzdelávacej kvalifikácie. Ďalšou nevýhodou je, že nerešpektuje čiastočnú účasť na vzdelávaní, tzv. medziprodukt. Do tretej skupiny merania nerovnosti v tejto oblasti patria údaje zamerané na hodnotenie vzdelávacích výsledkov v oblasti čitateľskej, matematickej, prírodovednej, počítačovej a informačnej gramotnosti. Tieto údaje vyplývajú z medzinárodných testovacích programov, ako napríklad štúdia OECD PISA či štúdie Medzinárodnej energetickej agentúry (IEA) PIRLS, TIMSS, ICILS, ktoré umožňujú porovnať efektívne kognitívne schopnosti, teda v sebe zahrňujú nielen kvantitu, ale aj kvalitu. Zber dát je však zložitým a finančne náročným procesom.

3.1 Vzdelanostná nerovnosť na Slovensku

Slovensko je krajina s vysokým podielom sekundárne vzdelaných ľudí (Graf 4). Štatistiky ukazujú, že 72 % aktívneho obyvateľstva dosahuje vyššie sekundárne alebo postsekundárne vzdelanie. Tento podiel sa v posledných rokoch mierne znížil predovšetkým z dôvodu nárastu ľudí s vyšším vzdelaním. V roku 2005 podiel terciárne vzdelaných ľudí prevýšil podiel primárne vzdelaných a v súčasnosti 19,9 % obyvateľstva Slovenska má ukončené vysokoškolské vzdelanie. Podiel nízkokvalifikovaných osôb je na úrovni 8,1 %, čo možno považovať za veľké pozitívum, pretože tento podiel sa v porovnaní s rokom 1998 znížil o 11,9 percentuálneho bodu.

Graf 4 Vývoj vzdelanostnej štruktúry obyvateľstva SR v rokoch 1998-2013 (25-64 rokov)

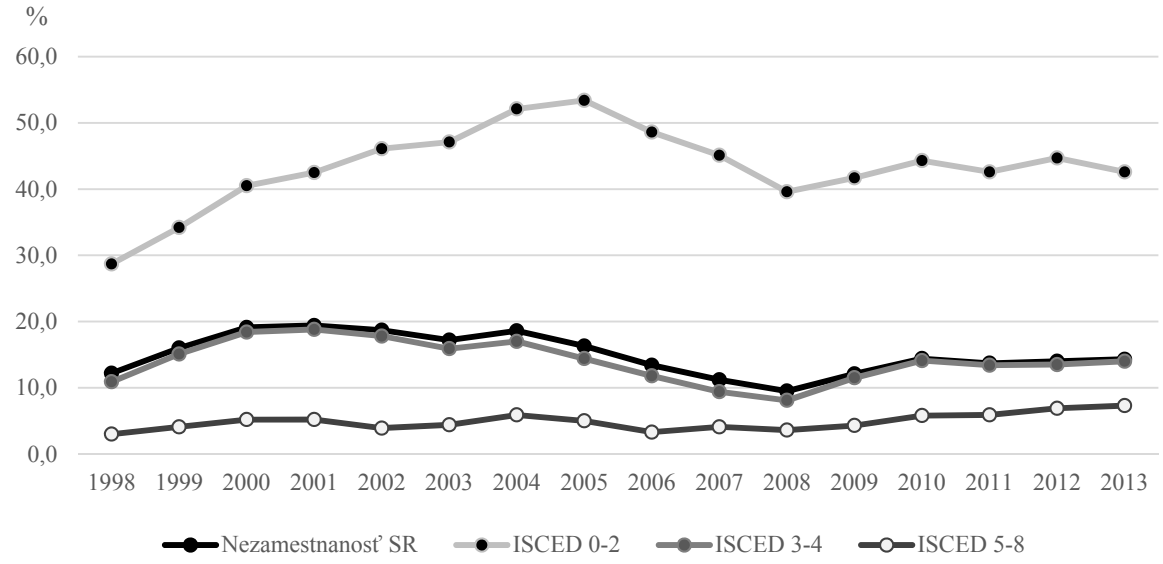


Prameň: [25]. Spracovanie vlastné.

Rastúci význam vzdelania má vplyv aj na postavenie rôzne vzdelaných ľudí na trhu práce. Štatistické údaje Eurostatu poskytujú ďalšie zaujímavé informácie o situácii rôznych skupín s daným vzdelaním. Finančná a hospodárska kríza mala samozrejme negatívny vplyv na vývoj nezamestnanosti aj na Slovensku. Najväčšou skupinou nezamestnaných sú počas sledovaného obdobia vždy nízkovzdelaní ľudia (Graf 5) a takisto niet pochýb, že najväčšiu časť pracujúcich ohrozených rizikom chudoby (Graf 6) tvoria ľudia so základným vzdelaním na úrovni 16,5 %,

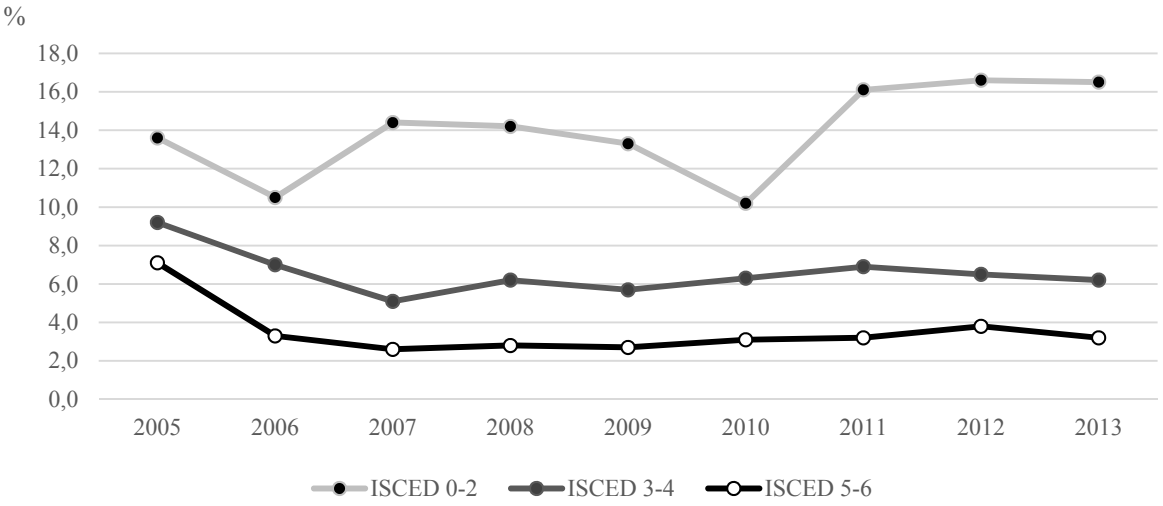
ktorých nasledujú pracovníci so stredoškolským vzdelaním (6,2 %). V prípade miery rizika chudoby pacujúcich však medzi stredoškolsky a vysokoškolsky vzdelanými už nie je taký výrazný rozdiel (ide len o 3 %).

Graf 5 Vývoj miery nezamestnanosti podľa vzdelanostnej štruktúry obyvateľstva SR v rokoch 1998-2013 (15-64 rokov)



Prameň: [25]. Spracovanie vlastné.

Graf 6 Miera rizika chudoby pracujúcich podľa vzdelanostnej štruktúry obyvateľstva SR v rokoch 2005-2013 (18-64 rokov)



Prameň: [25]. Spracovanie vlastné.

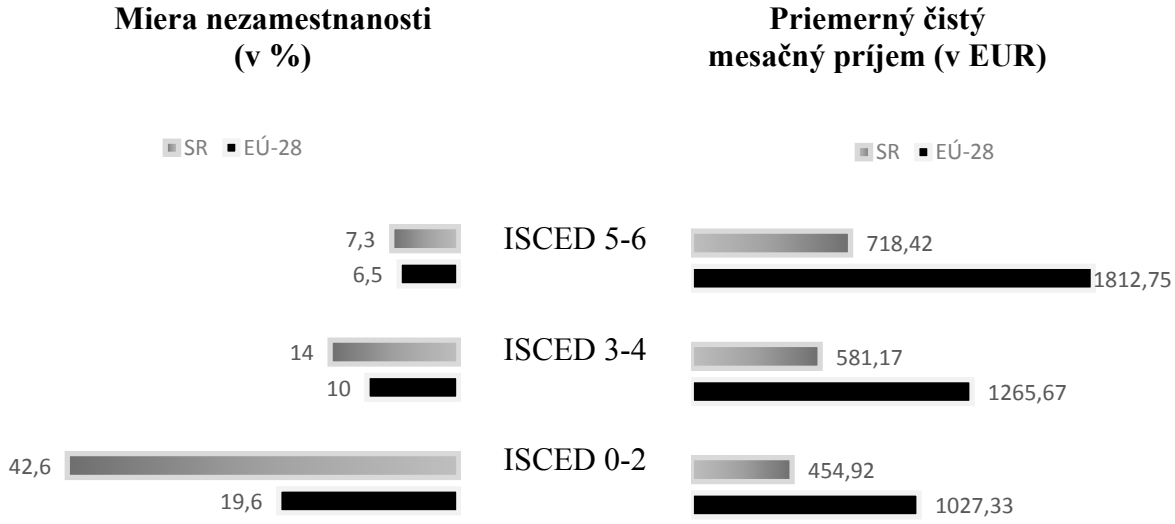
Na základe uvedených grafov možno povedať, že najnižší dopyt na trhu práce je po nízkokvalifikovaných ľuďoch, v dôsledku čoho ich nezamestnanosť je trvalo vysoká (predovšetkým v porovnaní s priemerom krajín EÚ – Graf 5). Avšak celkový počet nízko vzdelaných jedincov na Slovensku je pomerne nízky v porovnaní s ostatnými krajinami Európskej únie (Graf 3).

V predchádzajúcich častiach príspevku sme poukázali na vývoj príjmovej a vzdelanostnej nerovnosti v krajinách EÚ s osobitným zameraním na príjmovú a vzdelanostnú úroveň Slovenska. Medzi týmito nerovnosťami však existuje vzťah, pričom na vyrovnávací účinok

školstva poukázali už na konci 20. storočia aj niektorí autori ako napríklad Ram (1984), Bourguignon a Morrisson (1990) ([18], [3]).

Pomocou Grafu 3 sme poukázali na výraznú zmenu vzdelanostnej štruktúry obyvateľstva v roku 2013 v porovnaní s rokom 2000, pričom účasť na terciárnom vzdelaní výrazne rástla (z 10,3 % na 19,9 %). Tento vývoj má pozitívny vplyv aj na príjmovú nerovnosť, pretože vo všeobecnosti čím vyššia je úroveň vzdelania, tým vyšší je aj príjem jednotlivca. Dospelí s terciárnym vzdelaním zarábajú viac ako dospelí s vyšším či nižším sekundárnym vzdelaním (Graf 7).

Graf 7 Porovnanie miery nezamestnanosti a výšky priemernej čistej mesačnej mzdy podľa vzdelanostnej štruktúry obyvateľstva SR v roku 2013 (18-64 rokov)



Prameň: [25]. Spracovanie vlastné.

Výška miezd v jednotlivých krajinách EÚ sa výrazne líši v závislosti napríklad od polohy, odvetvia, pracovných skúseností a ďalších faktorov. Úroveň dosiahnutého vzdelania však tiež hrá dôležitú úlohu. Medzi úrovňou dosiahnutého vzdelania, miery zamestnanosti a výškou príjmu je totiž priamy vzťah. Priemerná miera nezamestnanosti v krajinách EÚ v roku 2013 bola v priemere na úrovni 12,03 %, v prípade Slovenska na úrovni 21,3 %. Rozdiel je výrazný, napriek tomu však vidíme pokles miery nezamestnanosti zvýšením kvalifikácie (Graf 7). Vyššie uvedený graf ukazuje aj vývoj priemernej čistej mesačnej mzdy v závislosti od najvyššieho dosiahnutého vzdelania osôb. Výška mesačného príjmu v našej krajine je hlboko pod priemerom únie a u nás ani neexistuje taký silný vzťah medzi úrovňou vzdelania a výškou príjmu ako je tomu v krajinách EÚ. Na základe štatistických údajov Eurostatu priemerný čistý mesačný príjem na Slovensku je 584,84 EUR v porovnaní s priemerom EÚ, čo je vo výške 1368,58 EUR. Priemerný čistý mesačný príjem na Slovensku je 454,92 EUR pre obyvateľov so základným alebo nižšie sekundárnym vzdelaním a plat je vo výške 718,42 EUR pre tých, ktorí majú ukončený terciárny stupeň vzdelávania (rozdiel je 263,5 Eur). V prípade EÚ rozdiel medzi zárobkom je 785,42 EUR.

4 Záver

Vysoká a stále rastúca príjmová nerovnosť je v poslednej dobe široko kritizovaná. Autori vymedzujú stále viac faktorov ovplyvňujúcich vývoj príjmovej polarizácie, medzi ktoré patrí aj vzdelanostná nerovnosť.

V našom príspevku sme sa zaoberali vzájomným vzťahom medzi príjmovou a vzdelanostnou polarizáciou. Naša hypotéza sa potvrdila. Pomocou štatistických údajov sme zistili, že úroveň dosiahnutého vzdelania má výrazný vplyv nielen na mieru nezamestnanosti, ale aj na finančné možnosti jednotlivca. To znamená, že úroveň dosiahnutého vzdelania má pozitívny vplyv na vývoj miery nezamestnanosti. Na druhej strane však nárast počtu absolventov vysokoškolského vzdelávania negatívne ovplyvňuje príjmovú polarizáciu. Existuje totiž významný vzťah medzi úrovňou príjmu a dosiahnutého vzdelania. Ako sme však už uviedli, nejde len o dôchodkový efekt. Štatistické údaje silne naznačujú aj slabý dopyt po menej vzdelaných pracovníkov, čo má závažné dôsledky v rôznych oblastiach spoločenského života.

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NEW ACCESS TO FINANCE RENEWABLE SOURCES OF ENERGY IN EUROPEAN UNION AND SLOVAK REPUBLIC, THEIR POSSIBLE RISKS

Alena BAŠOVÁ[1]

[1] University of Economics, Faculty of National Economy, Department of Finance, Dolnozemská cesta 1, 852 35 Bratislava, Slovak Republic, Tel. number: +421 905 450766, e-mail: alenkabaso@gmail.com

ABSTRACT

The aim of this paper is to point out the use of renewable energy in the European Union as a concept, and comparison with the level of their use in the Slovak Republic. Challenge 20/20/20 belongs to the priorities of the Community energy policy, which means 20% reduction in greenhouse gas emissions, 20% share of renewable energy in final energy consumption and achievement savings of 20% of future energy consumption by 2020.The use Renewable Sources of Energy also brings the risks, as well, which I mentioned in the following SWOT analyses of the article. The main method in the creation was the observation method, the method of collecting information, and next paired methods, analysis and synthesis, induction and deduction, as well the method of comparison and the subsequently graphical methods, mathematical that I used while creating figures, tables.

Keywords: renewable energy, energy, biomass, wind, solar

JEL codes: D04, D42

1 Introduction

Each society uses the energy sources for transport, industry, services and living standards, which directly depend on them. The last several years, we may see the rapid growth of all energy consumption in the world. The total consumption of energy also increases due to the global population and with the increase of our living standards, as well as. The energy sector is also significantly influenced by the level of the development of the social and technical environment.

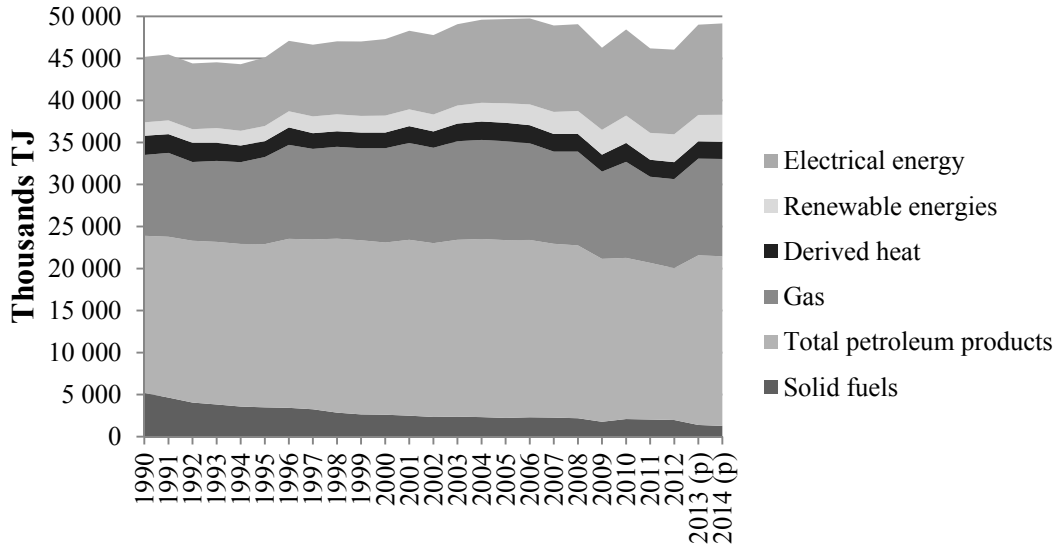
The resulting effects are not only depleted resources of fossil sources, but the negative affects of energy is on ecosystems and negative impact on humans is the greenhouse effect. So the renewable energy sources are an appropriate solution of the energy situation in the future in the whole world.

Developed countries use the available sources to ensure their energy needs that include the coal from their own reserves as well as others sources produced by the domestic subjects. The situation in the field of renewable energy sources in 28 countries of EU monitors the European Commission and publishes many dates concerning these topics on its website.

In EU-28 final energy consumption in 2012 was 46 million TJ, slightly lower than in 2011. Final energy consumption has increased slowly since 1994, which reached its highest value, i.e. 50 million TJ, in 2006. Afterwards, the level remained quite steady, but the first strong decrease, by 6 %, in 2009, because of the financial and economic crises. The largest decrease represent the use of solids fuels, by 19 %, followed by gas (7 %), petroleum products (6 %) and electricity (5%). In 2012 the biggest share in the structure of the final energy consumption was for petroleum products (39 %), followed by gas (23 %), electricity (22 %), renewables (7 %), heat

and solid fuels (4 % each). On the other hand, consumption slightly increased by 2009 to 2011 about 6 to 8 %. Using this development, I made an estimate as a linear dependence for the years 2013(p), 2014(p) by method of the least squares, and then I estimated the development of final energy consumption for the year 2013, 2014.

Figure 1 Final energy consumption by fuel (EU 28) in thousands TJ



Source: own processing according: [16]

2 Analysis of the baseline situation in Slovakia

At the beginning of 2009 the gas crisis in Slovakia was the serious problem for the Slovak economy, because Russia completely stopped their delivery of natural gas through Ukraine to Slovakia for a few days. In a case of the reduction limitation or interruption of the gas supplies from the Russian Federation, these volumes provided of the natural for additional suppliers from other countries to ensure continuous and reliable delivery, and these are not depend on the transport lines through the territory of Ukraine. [4] The high degree of dependence of the heat sector on deliveries from one source, from one route was showed during the period of crisis - January 2009, it pointed out the vulnerability of all our consumers, not only the households. [12] The definition of energy security is relatively challenging. The simplest formulation is a definition of Daniel Yergin who defined the energy security as „sufficient supplies at affordable prices". [10].

Yergin reacts to various market speculations, the political instability and other internal and external factors affecting the current energy security. Yergin defines four basic principles ensuring the energy security. The first principle is traditionally diversification. The access to alternative sources reduces the risk of failure of supplies from one source and thus a fundamental principle of security of continuous supplies of the energy raw materials. He emphasizes the need for strategic reserves, sufficient reserve capacity, the backup systems through the entire production and distribution chain. According to the preliminary analysis of the EU in 2030 it is predicted to increase gas supplies from the current about 500 billion cubic meters (2006) to 780 billion cubic meters per year. It is expected to decrease production in the EU by around 100 billion cubic meters in 2030 [8]. The third principle is the recognition of reality integration. The fourth principle is the need and importance of the information. This principle results from the experience. The gas crisis in January 2009 showed a high rate of vulnerability of Slovakia not only with regard to the high dependence on supplies from one source and one the route. By giving the own sources of Slovakia energy market, we can state

that a role in reducing the overall dependence on the imports of natural gas and other energy raw materials may only be renewable by energy sources and in particular by the biomass. [5].

In 2009 the third energy liberalization package was adopted the aim of which was introduced the competition in the energy sector [3]. This created conditions for the entry of new "players" in the energy commodities markets. With the objectives of EU the important role have the end users, including households [7], further, in compliance the high protection of the end users was implemented.

In implementing measures resulting from the third energy package of the EU, the Slovak government will consider the economic interests of the Slovak Republic, mainly the protection of vulnerable customers and the fight against energy poverty. Subsequently actualized State energy policy emphasizes importance the cross-border cooperation in Central Europe [6], [9]. According to the figure 1, I estimated next development and I calculated the approximate values in 2013, 2014 in energy consumption of fuel for 2013, 2014.

Table 1 Table of estimate development in 2013, 2014 of fuel (EU28)

Fuel/Year	2013(p)	2014(p)
Natural gas	7 010	6 952
Hydro power	1218	1 221
Wind power	572	603
Biogas	378	396

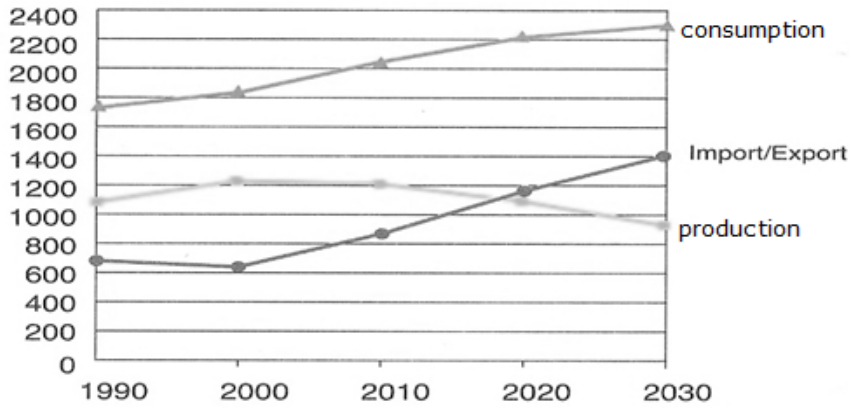
Source: own processing according Figure 1

3 The future of biofuels is at crossing

The Green Paper points to the issue of reducing EU energy dependence, it led to the adoption of next energy packages: the climate and energy package, the third energy package (liberalization package for the internal market with the electricity and the gas) and the package of energy efficiency and security.

Nowadays, the basic document of energy policy is Energy 2020 is - strategy for the competitive, sustainable and secure energy that was adopted in 2010. The EU after the USA is the largest consumer and importer of energy in the world economy and cause the fact makes the EU highly dependent on the political and economic stability of the foreign markets. The EU is able to cover constantly higher prices for energy supplies.

Figure 2 Energy balance of the European Union (in millions terahours)



Source: [15]

Expected development of demand for different types of energy, to which their production should be in future adapted is shown in the following table**.**

Table 1 Prognoses energy demand (in toe)

Fuel/year	2002	v %	2010	v %	2030	v %	Annual growth
Coal	303	18	307	17	274	13,5	- 0,4
Oil	648	38	687	37	743	36	+ 0,5
Natural gas	389	23	468	25	649	32	+ 1,8
Nuclear energy	251	15	251	14	146	7,5	- 1,9
Hydropower	26	1,5	30	1,5	33	1,5	+ 0,8
Biomass	65	4,0	84	4,0	17	7,0	+ 3,0
Other renewables	8	0,5	21	1,0	57	2,5	+ 7,2
The sum	1690	100,0	1848	100,0	2049	100,0	

Source: processing by: [15]

4 New challenges for the EU and SR

Since the early 70 years of the last century the consumption of electricity in the world has increased 2.5 times and it currently represents 20% of final energy consumption. There are still large difference in overall energy consumption and electricity per capita among many countries. The report of the International Energy Agency states the huge investment will be needed to ensure sufficient electricity in the first half of this century. It is the only way how the world may protect the supply of electricity from the great disruptions that are traditionally appeared in Western Europe and the USA during the summer months. Despite the uncertain future in the use of the renewable energy sources it is a slight increase in the biofuel consumption in the 28 EU Member States. Share of renewable energy in gross final energy consumption is shown in %. This indicator is calculated on the basis of data published by Regulation (EC) No 1099/2008 concerning energy statistics. The reports of the member countries must provide additional information about renewable source. The Directive is a part of the package of energy and climate change legislation which provides a legislative framework for the Community targets for 20/20/20. It stimulates the energy efficiency, energy consumption from renewable sources, the improvement of energy supply and the economic stimulation.

Table 2 Production and consumption of electricity in Slovakia and the projected developments

Year / Indicator	Consumption	Production	Difference
2006	29,4	31,0	1,6
2007	29,7	28,4	-1,3
2008	30,1	28,7	-1,4
2009	30,5	26,1	-4,4
2010	31,0	26,5	-4,5
2015	32,9	38,1	5,2
2020	34,8	38,1	3,3
2030	38,0	35,5	-2,5

Source: processing according: [16]

Each Member State has the target to reach the value of share of RSE in compliance to the share of energy from renewable sources calculated in its gross final consumption for 2020. The Member States had to establish the effects of other energy efficiency measures on final energy consumption in national action plans. Member States can change an amount of energy from renewable sources by using and setting the common projects concerning the production of electricity and heating from renewable sources.

It is also possible to introduce the cooperation with third countries. The following conditions must be met:

- the electricity must be used in the Community;
- the electricity must be produced by a newly constructed installation (after June 2009);
- the quantity of electricity produced and exported must not bring benefit from any other supports.

Member States should build the necessary infrastructures for the energy from renewable sources. They should ensure that operators include the transmission and distribution of electricity from renewable sources as a priority provide access to the grid. The Directive considers energy from biofuels and bio-liquids. The latter should contribute to the reduction of at least 35 % of greenhouse gas emissions. By 1 January 2017, their share in emissions savings should be increased to 50 %. Biofuels and bio-liquids are produced by using raw materials coming from outside or within the Community.

According to this point are very important the cross-border co-operations. In the next table I show share of renewables in the gross final energy consumption in 2012 and the last column represents the setting value from Strategy 20/20/20. I have also chosen Slovakia, other countries following Norway, that has the biggest share of RSE and next it is Malta that has the smallest share of RSE in the gross final energy consumption. Next countries belong to economic group V4. In this context, their cooperation is important as well as import or export of energy and cross border exchanging of the energy.

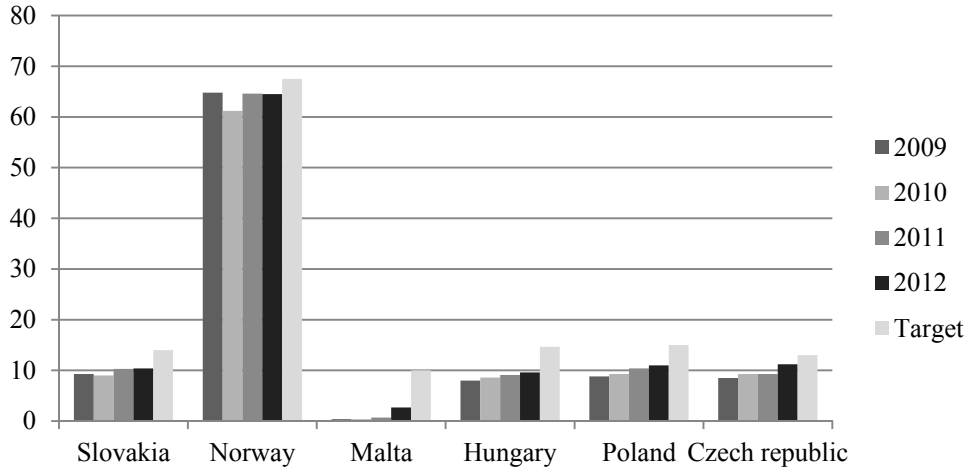
In next table I show share of renewables in the gross final energy consumption in 2012 and in the last column the target value is stated. I have chosen countries as Slovakia, Norway, Malta, next countries belong to economic group V4, thus mentioned above.

Table 2 Share of renewable energy in gross final energy consumption according 20/20/20

Country	2009	2010	2011	2012	Target
Slovakia	9,3	9,0	10,3	10,4	14
Norway	64,8	61,2	64,6	64,5	67,5
Malta	0,4	0,4	0,7	2,7	10,0
Hungary	8,0	8,6	9,1	9,6	14,65
Poland	8,8	9,3	10,4	11,0	15
Czech republic	8,5	9,3	9,3	11,2	13,0

Source: own processing according website: [16]

Figure 3 Share of renewable energy in gross final energy consumption



Source: own processing according Table 2

The European Parliament also adopted the measures to accelerate transition of the new biofuels from the alternative sources such as seaweed and waste [13]. The aim is to reduce the greenhouse gas emissions caused by the increasing use of agricultural land for biofuel production. In order to ensure the sustainable growth rate of European countries it is necessary to adopt fundamental structural changes in the energy sector.

By giving the fact that energy investments are long term, decisions of energy projects now, will affect future energy system EU. Energy experts are claimed, that the proportion of first-generation of biofuels (of food crops), in 2020, will not exceed 6% of final energy consumption in transport. Following an action plans in the individual EU Member States show that biomass and biofuels should be in 2020 to almost 60% of the RES as such (biomass represents 45%, 12% biofuels). Planned production for 2020 ought to reach 104 Mtoe volume, together in the sectors of electricity (232 TWh or 19 Mtoe) and heating (about 85 Mtoe).

The difference between the planned and actual volume may be associated with production cycles in the sectors producing wood, pulp and paper, which represents a significant portion of the waste materials for the production of biomass. As far as biofuels is concerning in 2020 the Member States will import about 463 PJ to reach the 10% target in the transport sector.

One third of EU member states will depend on imports of biofuel. Roughly similar development is predicted in biomass employment: an initial slight excess, compared to the planned development, will be reduced and result in a deficit.

Table 3 SWOT analysis of biomass

Strengths	**Weaknesses**
The most promising source of energy	The need of the storage (for its seasonality)
The largest exploitable potential	The need for long-term reliable supply
Negligible sulphur content and particulate pollutants in the combustion	Transport costs
CO_2 neutral effects	
Opportunities	**Threats**
Reducing dependence on imported fossil fuels	The growth of biomass prices due to higher demand
The development of rural employment	Possible increase in transport costs
New job opportunity in production and operation of an equipment	The lack of biomass in connection with unstable demand
Development of new fields of sciences (biotechnology)	

Source: own processing according: [14]

In 2020 the water and the wind energy should have the same share of 12% in the mix of the RES. In 2020 wind turbines built on the shore will reach only a fraction of their potential; planned potential production is 338.9 thousands GWh, it is representing only 3.8% of the total technical production potential – 18 900 TWh. Off-shore wind turbines should reach the share of renewable energy – 4.7%.

Further development of wind energy as a whole is directly related to development of power and transmission systems. The electricity system must satisfy the N-1 criterion that is the basic security criterion to determine operational requirements for transmission system. Since January 2013 the transmission system operators of V4 countries (SEPS, CEPS, MAVIR and PSE Operator) must solve "the problem of circular flows". The key is to use the allocation method for flow-based practice on daily base that determine specific capacity available for electricity transmission in international trade. In 2012 the transmission system of Slovakia was menaced by the increase of transmitting electricity that affect the safety of Slovak transmission system by localization of power plants in northwest Europe (in Germany) and on the other hand by higher electricity consumption in the southeast of Europe. The transit flows affect the size of the loses that increased due to the high menace of distribution network, so the European counties must follow the operating rules of the European electricity market established in the Directive 2009/72/ EC concerning common rules for the internal market in electricity.

Table 4 SWOT analysis of wind energy

Strengths	**Weaknesses**
Sufficient technical potential	Low power stability
Minimum operating costs	Special requirements for the selection of suitable sites
	High primary investment costs
	Changing the original appearance of the landscape
Opportunities	**Threats**
Price cuts of wind turbines	An uneven supply of electricity to networks
Immediate installation of equipment	Possible negative impact on the stability of the power system
The creation of new employment opportunities during construction	The lack of transmission capacities

Source: own processing according: [14]

Another important technology is photovoltaics. By 2020, the amount of 84.4 GWh a total installed capacity of solar power plants is assumed. In comparison, the total technical potential for photovoltaics in the EU-27 is 3900 GWh. In this context, as the appropriate partner seems to be the Middle East and North Africa - MENA region (ME / Middle East - ON / North Africa), that has the greatest potential for solar energy in the world. [11] [16]. The EU or private investors respectively, seek to exploit these opportunities through two schemes, to build the series of solar power plants in deserts producing excess of electricity that will be exported to the European continent through the transmission cables. This is an ambitious government project of the EU that aims to build solar systems and to sell their output to the EU to achieve 20% share of RES till 2020 [11].

5 Results and Discussion

Europe will not achieve the integrated (open and competitive) energy market while will not to adopt essential arrangements e.g. financial, regulatory and administrative. Market failures causes a high fragmentation of markets, the low level of competition and significant external costs caused by environmental pollution, low level of security of supply and slow introduction of technological innovation.

6 Conclusion

I think that the economic crisis is affecting the sector of energy production from renewable sources and in all other economic sectors, too. The main problems are the slow procedures for granting authorizations for energy from renewable sources. These processes must be transparent, coordinated and suitable. The investments in infrastructure are urgently needed as well as improving of power system operation. The European market for electricity depends on the way how to harmonize the rules on cross-border trade of electricity.

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CROWDFUNDING AS AN ALTERNATIVE FINANCIAL SOURCE OF SMALL AND MEDIUM – SIZED ENTERPRISES

Katarína BELANOVÁ[1]

[1] University of Economics in Bratislava, Faculty of National Economy, Department of Finance, Dolnozemska Street 1, 852 35 Bratislava, Slovakia, e-mail: katarina.belanova@euba.sk

ABSTRACT

Despite significant and irreplaceable role that small and medium – sized enterprises (SMEs) play in the Slovak economy, their access to sources of finance is difficult. This situation is even more pronounced after the outbreak of the financial crisis in 2009. Banks respond to the new situation by increased caution when they grant loans. One of the ways how to secure sources of seed capital, respectively capital to fund various innovative projects, is crowdfunding, which is considered to be an alternative to traditional venture capital investment. The aim of this paper is to introduce this innovative funding mechanism for businesses, as well as to point out its specifics and benefits.

Keywords: SMEs, crowdfunding, source of finance, loan

JEL codes: G01, G24

1 Introduction

It is generally acknowledged, that small and medium – sized enterprises (SMEs) are the backbone of all economies, as well as a key source of economic growth, dynamism and flexibility. Small businesses are particularly important for bringing innovative products or techniques to the market.

Regarding Slovakia, SMEs[1] (including the LPs – small trade licensees) represent 99.9% of the total number of businesses. Moreover, the achieved share of small and medium-sized enterprises in employment in the business economy of Slovakia was 71.8%, that is 4.3 p.p. higher than in the countries of the EU – 27 in 2012 [16].

Despite these facts, they are commonly constrained by finance. How to solve their financial constraint is a worldwide problem.

As shown in the paper, SME financing relies mainly on bank sources and they are at a particularly severe disadvantage when trying to obtain them relative to larger and more established firms.

They tend by their very nature to show a far more volatile pattern of growth and earnings, with greater fluctuations, than larger companies. Their survival rate is lower than for larger companies [1]. Thus, banks and other traditional sources of credit may decide that SMEs

[1] The categorization of enterprises used in Slovakia, as well as in the other EU Member States, is according to the Recommendation of the European Commission no. 2003/361/EC valid from 1.1. 2005. Enterprises qualify as SMEs if they fulfil the criteria laid down in the Recommendation. In addition to the staff headcount ceiling, an enterprise qualifies as a SME if it meets either the turnover ceiling or the balance sheet ceiling, but not necessarily both.

represent a greater risk than larger companies, and respond by charging higher interest rates. This makes it more difficult for SMEs to borrow than for bigger companies, and may make it effectively impossible for many SMEs to borrow money at all because the price of credit is too high.

Moreover, financial, as well as debt crisis in the Euro area naturally influenced obtaining loans. Bank loans had been quite common and accessible source of financing even in Slovakia before 2009, which is true also for the risky segment of SMEs (depending on the core and genesis of their business). Commercial banks thanks to high levels of their deposits had started to create more flexible and affordable credit schemes.

The supply side replied to the financial crisis almost immediately, especially by the tightening of the bank lending conditions. The lending was almost completely frozen at the time of the deepest crisis [14]. Risks associated with required guarantees had the highest impact on tightening of the standards, which were tightened especially for the category of SMEs.

Under these circumstances, the importance of alternative sources of finance is increasing.

The aim of this paper is to introduce crowdfunding as an innovative funding mechanism for businesses, as well as to point out its specifics and benefits.

2 Literature Review

Corporate access to finance has been the subject of interest among professional circles and corporate sector for a long time. There are many literature sources dealing with the issue of corporate finance, resp. in the strict definition with SME finance (e.g. [9]; [13]; [5]; [1] etc.). However, most of them just characterize the different possibilities for obtaining financial sources, and they do not analyze their development nor specific barriers encountered by Slovak SMEs in this process (actually, there have been some trials also in the SR, e.g. [2] etc.) and they do not formulate specific proposals for the support of obtaining external financial sources.

Funding of small and medium sized enterprises, that represents a major function of the general business finance market – in which capital for different types of firms are supplied, acquired, and costed or priced is called SME finance [1].

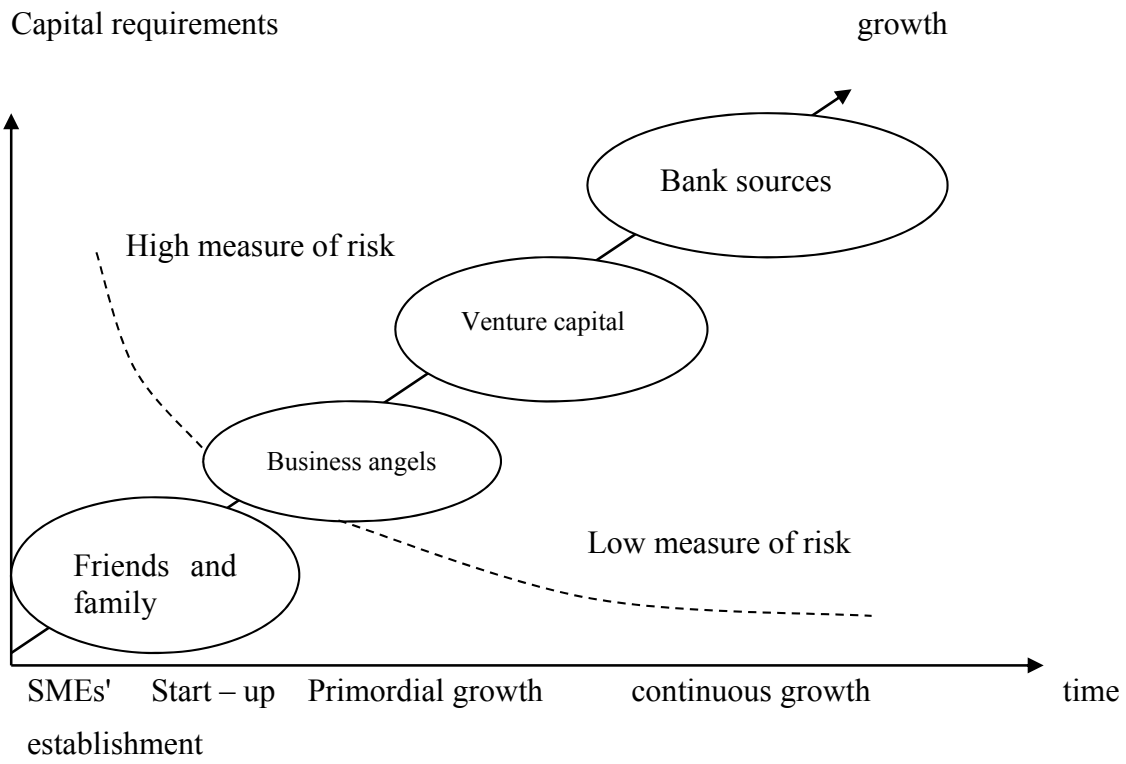
SME finance is based on the same principles and it works with the similar procedures as the corporate finance generally. SMEs, however, have more specifics, which are reflected in their financial management processes.

These are connected with their smaller size, lower degree of diversification, more limited market and higher riskiness. The specific features of SMEs include also their benefits, esp. their flexibility. SMEs have closer contact with customers and so they can adapt to their new needs faster.

They have different structure of assets compared to large companies – share of their fixed assets to total assets is significantly lower. On the other hand, the share of current liabilities to assets is higher, which indicates their higher financial vulnerability [4].

SME finance is more complicated due to the fact, that they require different spectrum of financial tools in various stages of life – cycle (figure 1).

Figure 1 Sources of SME finance according to the life cycle and business risk



Source: [6]

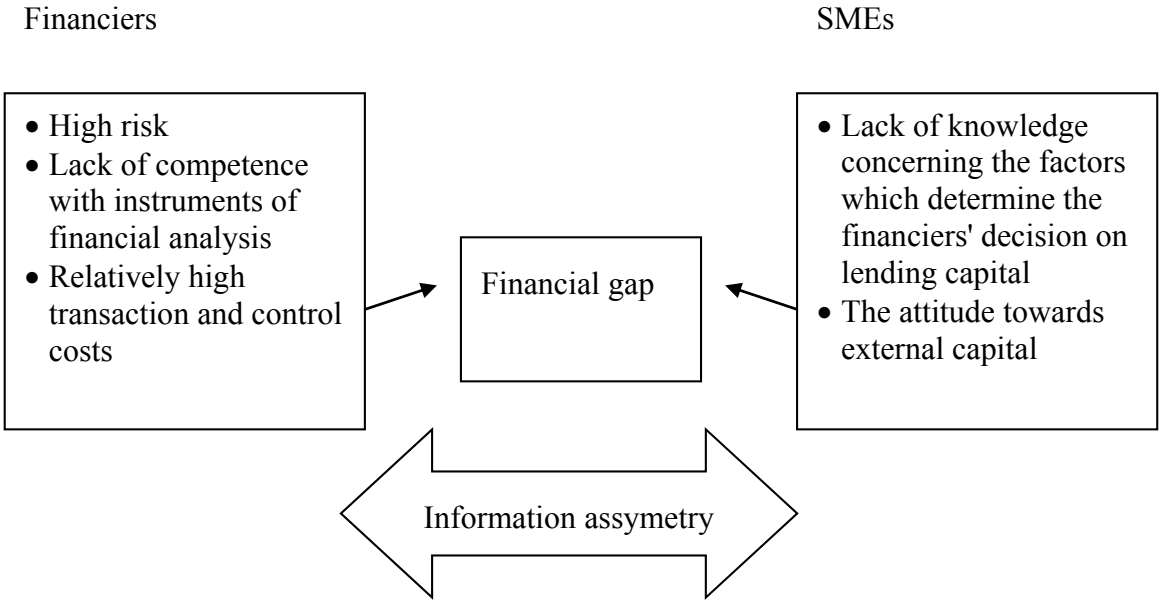
These companies often depend on the informal sources of finance at the initial stages of their life. External sources are getting to be important with the beginning of the expansion stage and access to them can influence the development trajectory significantly.

SMEs tend to have less financial strength, do not have sufficient collateral, which is usually the main reason why banks refuse to provide credit to them and why such businesses obtain it so hard. Smaller businesses and enterprises with a shorter history have only short-term contacts with the banks and therefore pay higher interest rates and the banks require higher guarantees from them [3].

The lack of funding available from the financial sector for SMEs is known as the "financing gap" (figure 2). The reasons of its origin are stated for example in [15].

The fact that financiers have difficulties with the assessment of the financial situation of the company and its owners, less intensive relationship between SMEs and financial markets (SMEs often get the financial sources from informal sources) and asymmetric information are those reasons. The information asymmetry is higher in SMEs which reduces their chances of getting financial sources compared to larger companies. Another factor influencing the intensity and character of the gap is the country where the SMEs operate. Financing gap is more evident in the so – called emerging markets than in OECD countries, though they point to the existence of partial financing gaps.

Figure 2 Financing gap



Source: [12]

3 Empirical surveys

There were many surveys realized regarding the SMEs` access to finance. Yet, their conclusions are not always equal.

Despite the importance of SMEs for the economy of our country, reality in SME finance in Slovakia is according to their managers, resp. owners, significantly worse compared to the state in other European countries.

It is presented for example in the survey realized by the EC in cooperation with the ECB (2013)[2]. All SME managers who participated in the survey were asked to evaluate a pre-supplied list of eight potential problems that their companies may currently be facing on a 10 point scale. 15 % of SMEs in the EU cited „access to finance", which placed it second just after finding customers (22%). It is clear that insufficient access to finance of SMEs will become the most serious problem when domestic demand for goods and services will grow again.

There was a lot of variation across countries with respect to the evaluation of SMEs for access to finance (40% of SMEs in Cyprus, 32% in Greece, 23% in Spain and Croatia, 22% in Slovenia, 20% in Ireland, Italy and the Netherlands, compared with just 7% in Austria or 8% in Germany and 9% in Poland). In case of Slovakia the value was 18% (higher than in 2011, resp. 2009).

The severity of the problem of getting *access to finance* was most pressing in Slovakia (42% of SMEs rating it as 10 out of 10, i.e. extremely pressing).

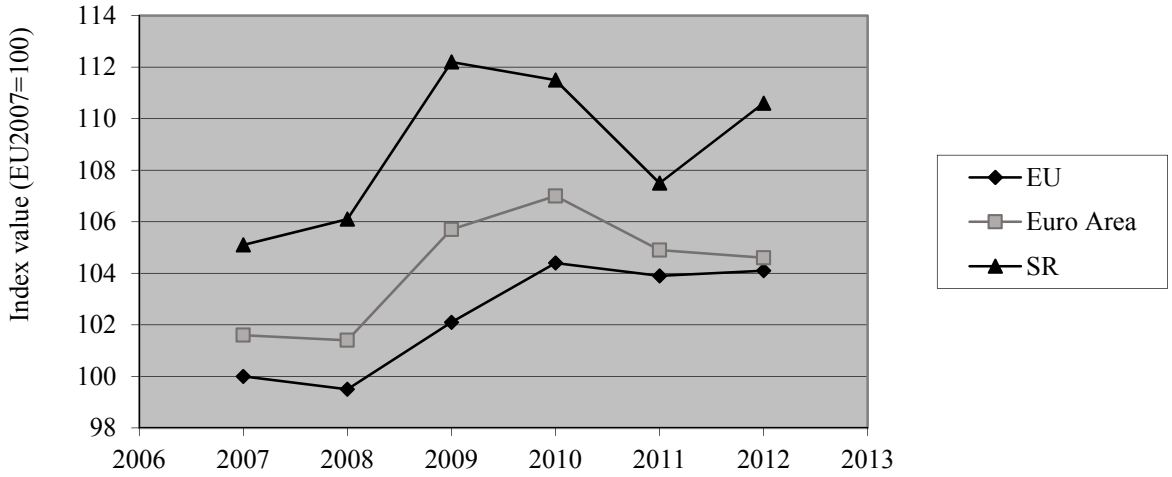
It was least likely to be judged as extremely pressing in Estonia (only 3%), Finland (5%) and the Czech Republic (5%).

[2] Survey „SMEs`Access to Finance Survey 2013", evaluates SMEs`Access to Finance and it is built on the previous surveys from 2011 and 2009. It was realized among 14,900 SMEs and it included 37 countries. The collection of the data was realized from 28.8 till 14.10.2013. [7]

However, every coin has two sides. That is why we have to present both sides. There is feeling of lack of funding sources for SMEs by their owners or managers on the one hand. On the other hand we will present assessment and comparison of countries through the SME Access to Finance Index **(SMAF Index)** developed by the EC. It monitors developments in Small and Medium-sized Enterprises' (SMEs`) access to financial resources, and analyzes differences between Member States.[3]

Figure 3 shows the SMAF Index scores for Slovakia, EU and Euro area.

Figure 3 SMAF Index scores for Slovakia, EU and Euro area



Source: [8]

The results of the SMAF Index are in accordance with the results of next survey [10]. 81% of the family businesses in Slovakia does not consider the access to finance as a problem.

According to the cited survey realized by the EC in cooperation with the ECB (2013), looking at recent sources of financing, external and internal[4], it was most common for EU SMEs to have only used external financing in the previous six months. Just over half (54%) looked for external financing only, slightly lower than in 2011 (56%). A further 22% of SMEs used both internal and external sources of funding, while only a few (4%) used only internal funding sources. One in five (20%) had not used any source of financing in the past six months, the same level as seen in 2011. Regarding Slovakia, 8% of SMEs surveyed used only internal funds, 51% used only external financing, 15% used both internal funds and external financing. The highest levels for relying on internal funds only were in Austria, Hungary and Slovakia (8%+, i.e. twice the EU average).

[3] The SMAF index provides an indication of the changing conditions of SMEs' access to finance over time for the EU and its Member States. The index is calculated using a baseline of EU 2007=100, and so allows comparison between countries and across time. The base reference of 2007 deliberately provides a baseline before the onset of the financial downturn. The index comprises two main elements or sub-indices:

- Access to debt finance
- Access to equity finance

In general the index largely reflects the importance of debt finance in the area of access to finance: the debt finance sub-index was set to represent 85% of the SMAF weighting.

[4] Internal financing was defined in the survey as 'Retained earnings or sales of assets'. External financing included various sources of financing, including grants/subsidised bank loans, bank overdrafts, bank loans, trade credits, leasing/hire purchasing/factoring, debt securities, subordinated loans and equity.

Bank loans (excluding bank overdrafts and credit cards) as s source of external financing were used in the past 6 months by 27 % of Slovak SMEs. It is lower than in 2011 by 0.7 p.p., resp. lower than in the EU – 28 (32%, increase by 1.2 p.p). Slovak SMEs reach the lowest degree of the complete successfulness when asking for the bank loan among the V4 countries.

Bank loans also remain the most preferable source of external financing for the future. This is true for the Slovak SMEs (74%) and also for the SMEs in EU – 28 (67%).

The survey also indicates that debt financing was relatively less common among the smallest SMEs (67% of those with 1-9 employees compared to 80% or more where there were at least 10 employees) and those with the lowest turnover (72% of those with €2 million or less compared with 84% for all SMES with bigger turnovers). It was also less common among the newest SMEs (60% if they were less than two years old) and those with only one owner (69% for a male owner and 63% for women owners).

On the other hand, there are also another possibilities for financing, which are not so widely used and that is why they are called alternative sources of finance (Belanová, 2010). We will present crowdfunding as an alternative financial source for SMEs in the next part of the paper.

4 Crowdfunding

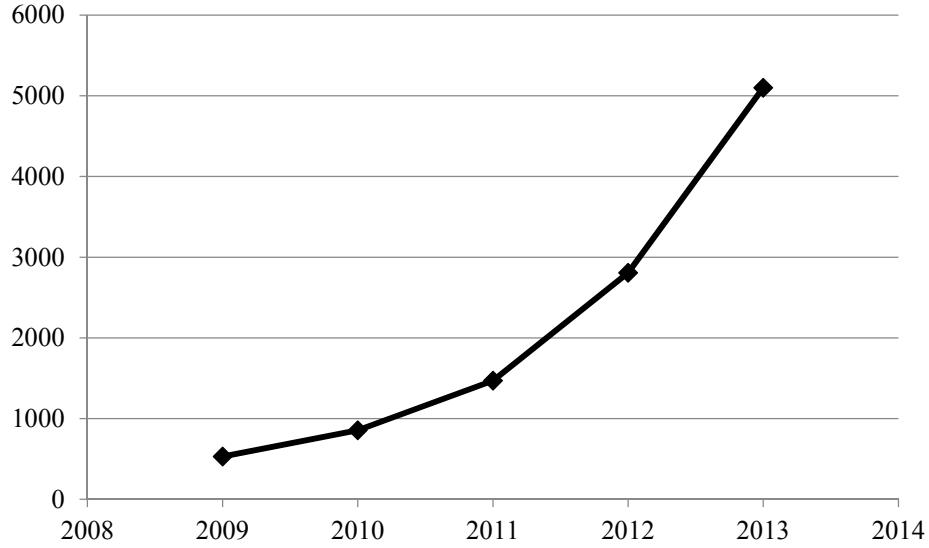
Crowdfunding is the raising of funds through the collection of small contributions from the general public (known as the crowd) using the Internet and social media. Crowdfunding has its origins in the concept of crowdsourcing, which is the broader concept of an individual reaching a goal by receiving and leveraging small contributions from many parties.

The key to crowdfunding in the present context is its inextricable link to online social networking and its ability to harness the power of online communities in order to extend a project's promotion and financing opportunities. The non-profit sector was the first to successfully employ crowdfunding in its present online form.

More recently, crowdfunding is becoming an increasingly common form of raising funds in the technology and media industries; including music, film and video games. Traditionally, crowdfunding is used to raise money to fund the development of a well-defined, singular project. The new form of crowdsourced private financing has lowered the barriers to entry not only for financing projects, but also for the average citizen to play the role of investor. Crowdfunding also has a unique dual function of providing both private financing and generating publicity and attention for a project.

Figure 4 presents development of the crowdfunding market globally and depicts how crowdfunding's popularity has grown over the years. Regarding the last year, the most active crowdfunding category was social causes (30%). Nearly 17 percent of crowdfunding dollars went to startups (next 28% to other, 12% films and performing arts, 8% music and recording arts, 6% energy and environment) [17].

Figure 4 Development of the crowdfunding market globally



Source: http://www.crowdsourcing.org/editorial/2013cf-the-crowdfunding-industry-report/25107

Crowdfunding has slowly but surely come also to Slovakia. There have been two successful start – up projects: project Culcharge (smallest USB charge and data cable for iPhone and Android) and Košice`s start – up Goldee (light controller).

There are 4 types of crowdfunding [11]:

- Donation based; donor of the financial sources does not get any reward for the provided funds.
- Reward based; contributor gets a reward by a change for the financial sources. It is usually a product that the company wants to bring to the market by the help of the financial sources received thanks to a crowdfunding campaign. It is a possibility for obtaining required capital in a form of pre – sales still in prototype phase. Sites like Kickstarter and Indiegogo are called rewards-based crowdfunding platforms.
- Lending based; applicant receives a loan from a number of small creditors. He repays the principal as well as the interest.
- Equity based; contributor (actually investor in this case), increases equity of the company and gets a share in its ownership.

There have been a number of creative hybrid models that combine donation, lending and/or investment models together. Innovative distribution rights models have also appeared that allow investors to participate in profit sharing without following a traditional investment model.

Reward based, lending based and equity based models of crowdfunding are relevant from the perspective of corporate financial sources. Especially the use of lending based and equity based crowdfunding is more flexible according to the situation and stage of company`s life cycle (the legislation of the country establishes the maximum amount which can be obtained in this way).

5 Results and Discussion

While crowdfunding may be a soothing alternative to bank loans and equity financing options, it has its own upside and downside. We can summarize them into following points:

1. Access to capital – crowdfunding can provide SMEs with the capital they need to start or expand their business, esp. if they are unable to secure a bank loan or convince angel and venture capitalists to support their businesses. It is much easier for several individuals to each contribute a small fraction of the funds they need than it is for a bank or angel to risk much huger amounts. This partially explains why crowdfunding usually works.
2. Awareness – crowdfunding helps SMEs create brand awareness before their businesses launch. As contributors wait for the launch, they will keep telling their friends. SME has a time to perfect its plan to launch with a bang, while word of mouth is working in the background to make its business popular.
3. Feedback – whether the campaign is successful or not, SME receives feedback. Realizing its needed funds much earlier than it expected is an indication that people are convinced by its business`s quality and edge. Yet, if the business fails to reach its goal at the end of the crowdfunding campaign that is an indication that it needs some tweaking or will most likely fail in the long term.
4. Speed of response – crowdfunding campaigns tend to be relatively short, compared with the length of time it will take for venture capitalists or banks to scrutinize business of SME before parting with their money. Most crowdfunding campaigns run for a timescale of one month.
5. Free press coverage – crowdfunding campaign can attract media attention if it is exceptionally successful or is considered unique in another way. This way, potential customers would have known about SME business before its eventual launch.

On the other hand, SMEs should be aware of several disadvantages of financing a business through crowdfunding:

1. The "All – or Nothing" model – which is used by most crowdfunding platforms. It means that if a SME is not able to raise its target amount, it will get nothing, even if it fall short by the whiskers. The platform will return their money back to contributors. Failing to meet its target on a crowdfunding platform that adopts this model means that SME has only wasted all the time and money invested in the crowdfunding campaign.
2. Reputation – if crowdfunding campaign flops, the details will remain on the crowdfunding platform for all to see. The page may even show up when someone tries to search the web for business of SME.
3. Pressure – contributors expect the company to launching its business in a timely manner. This may mount lots of undue pressure on it.
4. Hidden costs – it often happens that creators will add in extra rewards during their crowdfunding campaigns (to encourage more investors), without factoring in the extra costs that hose rewards will actually involve. Similarly, some creators offer rewards that may cost more than planned.
5. Negative impact on other financing options – crowdfunded businesses are usually indebted (debt – wise or equity – wise) to large number of investors, each with tiny stakes in the business. This structure could deter venture capitalists or angel investors when company approaches them for funding in the future, as many of them are leery of investing in a firm owned by hundreds to thousands of inexperienced shareholders.
6. Limitations – if you raise $1 million or more through equity crowdfunding, company cannot seek additional funds for the next one year. Otherwise, it must comply with certain securities registration requirements.
7. Potential lawsuits – investors usually expect quick returns and may not be patient if the business does not generate profits as expected. Lawsuits arising from failed business

ventures can therefore occur. The company may also be accused of fraud, breach of contract, or mismanagement.

6 Conclusions

Many small businesses start out as an idea from one or two people, who invest their own money and probably turn to family and friends for financial help in return for a share in the business. But if they are successful, there comes a time for all developing SMEs when they need new investment to expand or innovate further. That is where they often run into problems, because they find it much harder than larger businesses to obtain financing. Regarding bank loans, these companies tend to have less financial strength; do not have sufficient collateral, which is usually the main reason why banks refuse to provide credit to them and why such businesses obtain it so hard. Smaller businesses and enterprises with a shorter history have only short-term contacts with the banks and therefore pay higher interest rates and the banks require higher guarantees from them.

For improvement of obtaining bank loans by SMEs theoretical papers offer a solution – decrease of information asymmetry. For SMEs, because of their small size, short history, obscure accounting, etc., the extent of information asymmetry becomes more serious.

On the other hand, SMEs have also other possibilities of obtaining financing, the alternative sources. This article deals with different ways a business could raise money via crowdfunding and the advantages/disadvantages of doing so.

As shown, crowdfunding is becoming an increasingly popular way for startup businesses and more mature firms to raise money. Although it seems very easy: just to sign up with a crowdfunding platform, list funding needs and raise the required amount of money, actually, it is not so easy. Like any marketing or fundraising campaign, it requires a sound strategy and solid execution. It is also recommended not to copy the successful campaigns, to be original.

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AKTUÁLNE OTÁZKY, VÝZVY A PROBLÉMY VYSOKOŠKOLSKÉKHO VZDELÁVANIA NA SLOVENSKU

Daša BELKOVICSOVÁ[1]

[1] University of Economics in Bratislava, Faculty of National Economy, Dolnozemska Street 1, 852 35 Bratislava, Slovak Republic, e-mail: belkovicsova@valis.sk

ABSTRACT

The recent period is characterized by an expanding trend of transformation of the world economy to a society based on knowledge, skills and mental work. In this process an important role is being played by higher education institutions producing educated individuals prepared for the needs of the labor market which is the key determinant of building a knowledge society. The priority for society as a whole and the individual educational institutions engaged in it must be the focus on providing quality higher education conforming to international standards accessible to all, who are responsive and meet the conditions for its successful completion. Qualitative and quantitative expansion of higher education, however, is incompatible with the current trend in the financing, which is marked as distinctive under financed. Lack of financial security of higher education institutions is a key, long-term persistent problem of the Slovak higher education, which alarmingly calls for reform.

Key words: Higher Education, Higher Education Institutions, Financing, Financial Resources, Public Resources

JEL codes: I21, I23, I25

1 Úvod

Posledné obdobie je poznačené výrazne sa rozširujúcim trendom premeny svetovej ekonomiky na spoločnosť založenú na vedomostiach a duševnej práci. Pre Slovenskú republiku, malú otvorenú ekonomiku s nedostatkom surovinových zdrojov, je nasledovanie tohto trendu kľúčové. Rozhodujúcu úlohu v tomto procese zohráva vysoké školstvo a jednotlivé vzdelávacie inštitúcie v ňom pôsobiace. Ak nechceme zostať krajinou s lacnou pracovnou silou orientovanou na duševne menej náročnú prácu bez dosahu inovácií a výsledkov vedecko-technického pokroku, náš záujem musí smerovať k zabezpečeniu kvalitného, medzinárodne uznávaného vysokoškolského vzdelávania vyhovujúceho požiadavkám trhu práce. Takéto vzdelanie by malo byť k dispozícii všetkým občanom, ktorí oň prejavia záujem a spĺňajú predpoklady na jeho úspešné absolvovanie. Iba tak budeme schopní úspešnej adaptácie v procese rýchlo rastúcej medzinárodnej konkurencie.

2 Súčasný stav vysokoškolského vzdelávania na Slovensku

Vysokoškolský sektor na Slovensku je tvorený verejnými, štátnymi, súkromnými a zahraničnými vysokoškolskými vzdelávacími inštitúciami. Z celkového počtu 41 vysokých škôl tvoria rozhodujúcu väčšinu verejné vysoké školy s počtom 20, tri sú štátne, 13 súkromných a v rámci SR tiež pôsobí 5 zahraničných vysokých škôl (4 z nich so sídlom v Českej republike

a jedna v Nemeckej spolkovej republike)[1] [8]. Z celkového počtu študentov denného a externého štúdia na I. a II. stupni, ktorí študovali k októbru 2013 na slovenských vysokých školách, predstavuje až 90 % študentov verejných vysokých škôl (na súkromných vysokých školách študuje v súčasnosti iba viac ako 6 % študentov, čo predstavuje výrazné zníženie oproti predchádzajúcim obdobiam). Súkromné vysoké školy sa javia ako atraktívne predovšetkým v oblasti externého štúdia (viac ako 11 % všetkých externých študentov študuje na súkromných vysokých školách) [8,12].

Pre posledné obdobie je príznačný zvyšujúci sa záujem o vysokoškolské vzdelávanie zo strany študentov, ktoré je charakteristické pre väčšinu najvyspelejších krajín sveta, vrátane Slovenskej republiky. Trend masovosti vysokoškolského vzdelávania sa na Slovensku, v období rokov 2000 – 2011, prejavil takmer dvojnásobným rastom odhadovanej miery vstupu do tohto stupňa vzdelávania [2, s. 303], ktorý bol sprevádzaný aj nárastom počtu prijatých študentov. V rokoch 2009-2010 však na Slovensku došlo k postupnému medziročnému poklesu počtu prijímaných študentov, ktorý vyplýval predovšetkým zo snahy verejných vysokých škôl naplniť kritériá dané Akreditačnou komisiou a čeliť tak stupňujúcim sa tlakom na zvyšovanie kvality. K zníženiu počtu prijatých študentov došlo aj napriek protikrízovej požiadavke zo strany ministerstva školstva na zvýšenie počtu novoprijatých študentov pre akademický rok 2009/2010, ktorej verejné vysoké školy vyhoveli.

Podľa štatistických údajov OECD [2, s. 37] patrí Slovenská republika ku krajinám s pomerne nízkou vzdelanostnou úrovňou svojich obyvateľov, ktorá stagnuje predovšetkým v oblasti najvyššieho stupňa vzdelania. Priemerný podiel vysokoškolsky vzdelaných obyvateľov je, v rámci krajín OECD vo vekovej kategórii 25-64 ročných, na úrovni 32 %, zatiaľ čo v Slovenskej republike je tento podiel iba 19 % [2, s. 39]. Najvyššiu vzdelanostnú úroveň možno zaznamenať v tých krajinách OECD, v ktorých je systém vzdelávania postavený na finančnej zodpovednosti jeho priamych spotrebiteľov, teda študentov (Kanada, Japonsko, USA, Nový Zéland a pod.). Vzdelávacie inštitúcie získavajú prostredníctvom školného a rôznych druhov poplatkov potrebné finančné zdroje pokrývajúce narastajúci záujem o vzdelávanie a zabezpečujúce jeho vysokú kvalitatívnu úroveň. Vo všeobecnosti platí, že krajiny s vyššou vzdelanostnou úrovňou svojich obyvateľov dosahujú aj vyššie hodnoty hrubého domáceho produktu na obyvateľa. Sú schopné dosahovať trvalo udržateľný ekonomický rast a zvyšovať konkurencieschopnosť, čo im umožňuje rýchlejšiu a jednoduchšiu adaptáciu na nové, mnohokrát aj nevyhovujúce ekonomické podmienky (viď globálna hospodárska a finančná kríza). Vysokoškolsky vzdelaní jednotlivci sa vo väčšej miere zapájajú do procesu celoživotného vzdelávania, ktoré tiež zohráva významnú úlohu pri dosahovaní ekonomického rastu.

V nadväznosti na uvedené by sa našim kľúčovým zámerom mala stať kvantitatívna expanzia vysokoškolského vzdelávania, ktorá by korešpondovala s cieľmi Stratégie Európa 2020, spoločnej agende EÚ, ktorá si predsavzala do roku 2020 zvýšiť úroveň vzdelania. Tento cieľ by mal byť napĺňaný predovšetkým prostredníctvom spoločného úsilia o zníženie miery predčasného ukončenia štúdia na menej ako 10 % a zvýšením podielu ľudí vo veku 30 – 34 rokov, ktorí ukončili vysokoškolské vzdelanie aspoň na 40 %.

Kvantitatívne a kvalitatívne zvyšovanie podielu vysokoškolsky vzdelaného obyvateľstva je proces, ktorý musí prebiehať v kooperácii s meniacimi sa podmienkami na trhu práce. Ten musí byť schopný a pripravený absorbovať nových absolventov a predchádzať tak vzniku nezamestnanosti. Ako nedostatočná sa javí spolupráca vzdelávacích inštitúcií so súkromným

[1] Pre porovnanie, v Českej republike, ktorá má dva krát viac obyvateľov ako Slovensko je 26 verejných vysokých škôl, 2 štátne a 44 súkromných, čo predstavuje na jednu verejnú vysokú školu viac ako 405 tisíc obyvateľov, čo je takmer dvojnásobok v porovnaní so Slovenskou republikou (270 tisíc) [8,9,11].

sektorom ako hlavným prijímateľom týchto jednotlivcov. Prehĺbenie spolupráce v otázke konceptov vzdelávania a vzájomná kooperácia oboch sektorov môže byť nápomocná pri napĺňaní požiadaviek trhu práce, čo prispeje k trvalo udržateľného rastu, boju proti dopadom globálnej finančnej a ekonomickej krízy a k znižovaniu nezamestnanosti. Podľa OECD [2, s. 92] je na Slovensku miera nezamestnanosti vysokoškolsky vzdelaných jednotlivcov s ukončeným druhým, resp. tretím stupňom štúdia na úrovni 5,2 % (u mužov 4,6 %, v prípade žien je to o 1,2 desatiny percenta viac), čo nás v súčasnosti zaraďuje ku krajinám s vyššou mierou nezamestnanosti vysokoškolsky vzdelaných jednotlivcov (priemer krajín OECD je na úrovni 4,7 %). Uvedená skutočnosť naznačuje zhoršujúcu sa absorpčnú schopnosť slovenského pracovného trhu, ktorá je poznačená predovšetkým dopadmi globálnej finančnej a hospodárskej krízy. Ide však o štatistiky, ktoré abstrahujú od skutočnosti, či sa absolventi zamestnali v odbore, ktorý vyštudovali, resp. či zastávajú pozície adekvátne ich vzdelaniu, čo zohráva dôležitú úlohu pri komplexnom posudzovaní situácie na trhu práce. Trend v miere nezamestnanosti vysokoškolsky vzdelaných jednotlivcov, ktorý možno sledovať v posledných desiatich rokoch naznačuje jej mierne zvyšovanie. V období rokov 2000 až 2011 došlo k nárastu o 0,6 %, čo však, s prihliadnutím na finančnú krízu a zhoršujúcu sa situáciu u nižších vzdelanostných skupín obyvateľstva, možno vnímať ako pomerne zanedbateľné. Zvyšujúci sa záujem o vysokoškolské vzdelanie je tak logickým odrazom nižšej miery nezamestnanosti a priaznivejších mzdových podmienok. Podľa štatistík OECD je na Slovensku mzda vysokoškolsky vzdelaného v porovnaní s jeho menej vzdelaným kolegom viac ako dvojnásobná [2, s. 116]. Otázkou však zostáva, nakoľko vzdelanie jednotlivca prispelo k jeho uplatneniu na trhu práce a nakoľko je jeho úspech len odrazom jeho schopností a predpokladov, ktorými disponuje a slúžili na dosiahnutie vzdelania.

O nezastupiteľnej úlohe vysokoškolských vzdelávacích inštitúcií pri budovaní vedomostnej spoločnosti dnes už nikto nemôže pochybovať. Vysoké školy ako rozhodujúci determinant budovania spoločnosti založenej na vedomostiach a duševnej práci sa musia orientovať na ***poskytovanie kvalitného vzdelávania zodpovedajúceho medzinárodným štandardom dostupného pre všetkých, ktorí oň prejavia záujem a spĺňajú predpoklady na jeho úspešné absolvovanie.*** Inak povedané, cieľom je kvalitatívna expanzia neohrozujúca kvantitu a kvantitatívna expanzia neohrozujúca kvalitu. Začiatok úspešného dosiahnutia takto stanoveného cieľa je potreba uvedomenia si nevyhnutnosti reformy a ochota jej prijatia zo strany širokej verejnosti. Nasleduje vytvorenie koncepčných dokumentov, postupov a inštitucionálnych rámcov a postupná cieľavedomá implementácia nezávislá od politického napredovania. Dosiahnutie cieľového stavu si vyžaduje poznať a identifikovať súčasný stav ako východiskovú pozíciu tvoriacu základ pre prijatie reformných procesov. Prostredníctvom SWOT analýzy (viď Tabuľka 1) možno načrtnúť silné a slabé stránky slovenského vysokoškolského vzdelávania a jeho príležitosti a ohrozenia, ktoré tvoria determinujúce faktory dosiahnutia želaného stavu.

Tabuľka 1 SWOT analýza slovenského vysokoškolského vzdelávania

Silné stránky	Slabé stránky	Príležitosti	Ohrozenia
✓ zvyšovanie dôrazu na vedecko-výskumnú činnosť uskutočňovanú na vysokých školách	× výrazná dlhodobá podfinancovanosť vzdelávacích inštitúcií v porovnaní s najvyspelejšími krajinami sveta	✓ rastúci záujem o vzdelávanie na vysokých školách	× nedostatočný záujem súkromného sektora
✓ postupné zavádzanie prvkov a princípov bolonského procesu	× nevyhovujúca vzdelanostná štruktúra obyvateľstva s nízkym podielom vysokoškolsky vzdelaných	✓ rastúca medzinárodná spolupráca vysokoškolských vzdelávacích inštitúcií	× slabá nezávislosť vzdelávacích inštitúcií, ktoré sú závislé od politických rozhodnutí
✓ vysoká spoločenská i súkromná ekonomická návratnosť investícií do vysokoškolského vzdelávania	× únik mozgov	✓ dostatočný počet vysokých škôl	× nedostatočný záujem o implementáciu dôslednej reformy v oblasti vysokoškolského vzdelávania a jeho financovania
✓ veľký počet zanietených a erudovaných vysokoškolských učiteľov a výskumníkov	× financovanie výrazne orientované na kvantitatívne ukazovatele	✓ postupné uvedomovanie si potreby reformy vysokoškolského systému a jeho financovania zo strany odbornej i laickej verejnosti	× nedostatočná orientácia na kvalitu v oblasti financovania
✓ rast medzinárodnej mobility učiteľov a študentov	× slabá prepojenosť s trhom práce, predovšetkým v rámci bakalárskeho stupňa vzdelávania	✓ možnosť posilniť zodpovednosť a autonómiu vysokých škôl, predovšetkým vo finančnej oblasti	× nedostatočné vynakladanie verejných zdrojov nekorešpondujúce s možnosťami ekonomiky
✓ zvyšovanie orientácie na celoživotné vzdelávanie	× predčasné ukončovanie vzdelávania, predovšetkým v rámci technicky orientovaného štúdia	✓ možnosť inštitucionálnej rôznorodosti a premeny vzdelávacích procesov pre potreby trhu práce	× nedostatočná finančná podpora vedy a výskumu
✓ zvyšovanie angažovanosti a zapojenia vzdelávacích inštitúcií do zodpovednosti za vlastné finančné zabezpečenie	× výrazná závislosť vzdelávacích inštitúcií na verejných zdrojoch	✓ posilnenie bakalárskych študijných programov	× politická neochota uskutočňovania nepopulárnych opatrení
	× nedostatočný záujem vzdelávacích inštitúcií o kvalitu svojich absolventov	✓ zefektívnenie alokácie a prerozdeľovania verejných zdrojov	× dopady globálnej hospodárskej a finančnej krízy
	× neefektívne členenie vysokých škôl bez finančnej nadväznosti	✓ zvyšovanie záujmu o celoživotné vzdelávanie	× nedostatočné finančné a spoločenské ocenenie práce vysokoškolských učiteľov a výskumníkov
	× zvyšovanie počtu študentov na úkor kvality nekorešpondujúce so zvyšujúcimi sa finančnými zdrojmi	✓ zvýšenie kooperácie vedecko-výskumných aktivít vysokoškolských vzdelávacích inštitúcií s podnikateľskou sférou	× chýbajúce koncepčné materiály a analýzy vedúce k implementácii reformy
	× nedostatočná orientácia na vedecko-výskumné aktivity	✓ zvýšenie orientácie na medzinárodné projekty a excelentný výskum	× neefektívny systém fungovania študentských pôžičiek
	× nevyhovujúca kvalita niektorých vzdelávacích inštitúcií	✓ možnosť využitia prostriedkov zo štrukturálnych fondov EÚ	× nízka konkurencieschopnosť vysokoškolských vzdelávacích inštitúcií
	× nedostatočné využívanie finančných možností ponúkaných zo strany EÚ		× strata talentov neochotných pracovať za daných ekonomických podmienok
			× nedostatočná orientácia na kvalitu

Zdroj: vlastné spracovanie na základe štúdia zdrojov uvedených v zozname literatúry.

Za kľúčový a najpálčivejší problém vysokoškolského vzdelávania na Slovensku, alarmujúco volajúci po reforme, možno jednoznačne považovať nedostatočné finančné zabezpečenie verejných a štátnych vysokoškolských vzdelávacích inštitúcií, ktoré je zjavné predovšetkým v medzinárodnom kontexte a dlhodobo nekorešponduje s možnosťami slovenskej ekonomiky. Tento pretrvávajúci a koncepčne neriešený stav sa negatívne odzrkadľuje na ich kvantitatívnom a kvalitatívnom raste.

3 Záver

V súčasnej situácii, poznačenej predovšetkým dopadmi globálnej finančnej a hospodárskej krízy, nie je jednoduché nájsť dodatočné zdroje potrebné pre kvalitatívnu a kvantitatívnu expanziu vysokoškolského vzdelávania, ktorá je potrebná v súlade s víziou budovania spoločnosti založenej na vedomostiach a duševnej práci. Treba si však uvedomiť, že jednou z ciest z krízy, ako aj predchádzaním ich vzniku je budovanie vzdelanej spoločnosti schopnej nastúpiť na vlnu inovácií a technologických objavov, konkurencieschopnej v medzinárodnom prostredí a adaptabilnej na nové podmienky dané globalizačnými trendmi a zmenenými požiadavkami trhu práce. Nezachytenie týchto trendov môže mať pre krajinu ďalekosiahle negatívne dôsledky prejavujúce sa predovšetkým spomalením ekonomického rastu so stratou konkurencieschopnosti a nálepkou lacnej pracovnej sily vykonávajúcej menej náročnú rutinnú prácu sprevádzanú poklesom reálnych miezd a predlžujúcou sa pracovnou dobou.

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VPLYV FIŠKÁLNYCH RÁD NA KONSOLIDÁCIU VEREJNÝCH FINANCIÍ VO VYBRANÝCH KRAJINÁCH

Zuzana BRINDZOVÁ[1]

[1] University of Economics, Faculty of National Economy, Department of Finance, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia, e-mail: brindzova.euba@gmail.com

ABSTRACT

The main aim of this paper is specify the leading of fiscal councils in the countries of OECD and we compare common and different features to date incurred financial councils using the method of comparison and we indicate current development of public debt and deficit or general government surplus in the selected countries of EU. We make conclusions and compare how the activities and financial councils influence the fiscal consolidation and propose the solutions to improve countries management of public resources.

Keywords: public finance, budget, budget and fiscal council, fiscal discipline

JEL codes: H71, H72

1 Úvod

Slovenská republika čelí v ostatnom období veľkým tlakom na konsolidáciu verejných financií. Keďže riešenia na báze plošného znižovania výdavkov už v niektorých rozpočtových kapitolách narážajú na svoje limity, majú len krátkodobý efekt, ktorý sa v neskorších obdobiach vráti v podobe zvýšených výdavkov, prehlbujúca sa fiškálna nerovnováha sa stáva nikdy nekončiacim príbehom. Pre relevantné posúdenie stavu verejných financií, či fiškálneho a makroekonomického vývoja, sa v príspevku bude autorka zaoberať vývojom hrubého verejného dlhu ako percento z HDP a taktiež porovnáme celkový deficit, respektíve prebytok verejných financií, taktiež ako percento z HDP vo vybraných krajinách OECD. [1, 10]

2 Komparácia fiškálnych rád vo vybraných krajinách OECD

Každá krajina, ktorá zaviedla fungovanie fiškálnej a rozpočtovej rady sa usiluje o zefektívnenie hospodárenia s verejnými financiami, prípadne o zlepšenie ekonomiky krajiny, či dodržiavanie rozpočtových pravidiel. V uvedenej tabuľke 1 vidíme vybrané krajiny OECD vrátane ich oficiálneho názvu a roku, v ktorom začali plnohodnotne fungovať ako nezávislá monitorovacia organizácia. [3, 4, 12, 16, 17, 18, 24]

Tabuľka 1 Komparácia fiškálnych rád vo vybraných krajinách OECD

Krajina	Názov rozpočtovej rady	Rok vzniku	Financovanie
Slovenská republika	Rada pre rozpočtovú zodpovednosť	2012	Národná banka Slovenska (na jej požiadanie aj Ministerstvo financií SR)
Austrália	Parliamentary Budget Office	2011	Parlament
USA	Congressional Budget Office	1974	Kongres
Kanada	Parliamentary Budget Office	2006	Parlament
Švédsko	Swedish Fiscal Policy Council	2007	Štátny rozpočet, príp. Ministerstvo financií
Dánsko	The Danish Economic Council	2012	Štátny rozpočet
Veľká Británia	Office for Budget Responsibility	2010	Štátny rozpočet, príp. Ministerstvo financií
Írsko	Irish Fiscal Advisory Council	2012	Štátny rozpočet
Belgicko	The Federal Planning Bureau	1994	Štátny rozpočet, verejné zdroje
Holandsko	The Bureau for Economic Policy Analysis	1945	80% Ministerstvo hospodárstva 20% externé zdroje
Nemecko	The Council of Economic Experts	1963	50% vláda 50% štátny rozpočet
Rakúsko	The Austrian Fiscal Advisory Council	2002	Centrálna banka
Maďarsko	The Fiscal Council	2009	Centrálna banka
Portugalsko	The Portuguese Public Finance Council	2012	Štátny rozpočet
Slovinsko	The Fiscal Council of the Republic of Slovenia	2009	Generálny sekretariát vlády

Prameň: Vlastné spracovanie podľa Eurostat, 2014.

Zaujímavosťou je, že mnoho krajín ich vo vytvorení vlastnej rozpočtovej rady nasledovalo a ich kompetencie, financovanie, či ciele v značnej miere vzájomne korešpondujú. Zjavným príkladom je Rozpočtová rada Kanady, ktorá funguje na rovnakých princípoch ako Kancelária kongresu pre rozpočet v USA. Ako môžeme na uvedenej tabuľke vidieť, ďalším faktorom, ktorý slúži na poukázanie rozdielov medzi jednotlivými radami je spôsob, respektíve zdroj ich financovania. Vo väčšine prípadov sú financované zo štátneho rozpočtu, prípadne z rozpočtu centrálnej banky. [14, 20, 24]

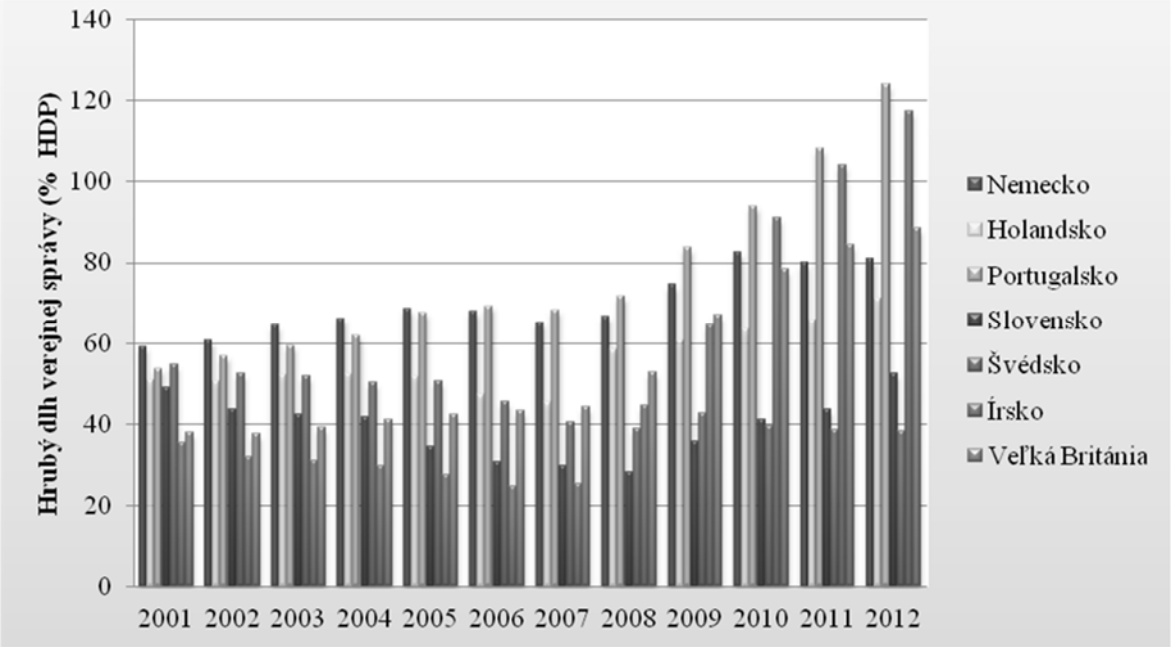
3 Hrubý dlh verejnej správy vo vybraných krajinách EÚ

Nakoľko výška verejného dlhu, či prípadný deficit verejných financií ovplyvňuje makroekonomickú stabilitu, ide o dôležité fiškálne ukazovatele, vyplývajúce z Paktu stability a rastu, pričom sa sleduje úroveň plnenia maastrichtských kritérií a záväzkov. Našim cieľom však bude zamerať sa na rok, kedy bola v danej krajine zriadená fiškálna a rozpočtová rada a následne zhodnotiť aký vplyv to malo na ozdravenie verejných financií, respektíve či zavedenie rozpočtovej rady zlepšilo dlhovú situáciu krajiny. V príspevku sa budeme preto skúmať základné fiškálne indikátory, pomocou ktorých sa pokúsime objektívne posúdiť, či má zavedenie fiškálnych a rozpočtových rád vo svete adekvátne opodstatnenie a protihodnotu.

Budeme skúmať úroveň hrubého dlhu verejnej správy a celkový deficit, prípadne prebytok verejných financií, ktoré najlepšie odzrkadľujú stav verejných financií jednotlivých krajín pričom sa budeme zameriavať predovšetkým na európske krajiny. [14]

V prvom rade je potrebné si uvedomiť, že: „hrubý dlh verejnej správy predstavuje súčet hrubého konsolidovaného vládneho dlhu v nominálnej hodnote, pričom berieme do úvahy výsledky ku koncu roka.“ [1, 8, 9] Na obrázku 1 môžeme vidieť vývoj hrubého verejného dlhu od roku 2001 až po súčasnosť, kde sú údaje znázornené ako percentuálna časť z hrubého domáceho produktu. Tento vývoj odráža naplnenie požadovanej úrovne dlhu verejnej správy, a teda do 60% hrubého domáceho produktu a obsahuje komplexné meradlo citlivosti fiškálnej politiky na ekonomické neúspechy, pričom nám umožňuje posúdiť, do akej miery majú krajiny svoje verejné financie pod kontrolou. Od roku 2007, teda tesne pred dlhovou krízou, sa úroveň dlhu zvyšuje v každej z pozorovaných krajín OECD. V niektorých rokoch je tento nárast značný, preto má krajina obavy z udržateľnosti verejných financií na požadovanej úrovni. „Jednoznačným príkladom takejto krajiny je Portugalsko, ktoré dosahuje dlh verejnej správy až 124% hrubého domáceho produktu, čo predstavuje dvojnásobok cielenej úrovne. Za zlú situáciu Portugalska môže viacero faktorov, počnúc dlhovou a finančnou krízou, neprimeranými vládnymi výdavkami a zlým hospodárením, ktoré spôsobujú rekordnú nezamestnanosť, vysoké dane, zvyšovanie príspevkov na sociálne zabezpečenie a neustále požičiavanie od iných krajín EÚ.“ [1, 8, 9]

Obrázok 1 Hrubý dlh verejnej správy vo vybraných krajinách EÚ



Prameň: Eurostat, dostupné na: <http://ec.europa.eu/geninfo/legal_notices_en.htm>, 2014.

Nakoľko sa od prepuknutia dlhovej krízy úroveň dlhu verejnej správy neustále zvyšuje, vláda sa rozhodla zriadiť monitorovaciu organizáciu, ktorá bude financovaná zo štátneho rozpočtu a bude vláde poskytovať inštrukcie, návrhy a odporúčania na zníženie verejného dlhu. Rada pre správu verejných financií v Portugalsku bol zriadená v roku 2012 a publikuje rôzne verejné odporúčania pre vládu ako hospodáriť s verejnými prostriedkami, pričom musí vláda odôvodniť nedodržanie odporúčaní fiškálnej rady. V nasledujúcich rokoch sa aj z dôvodu zavedenia rozpočtovej rady, očakáva zlepšenie finančného zdravia krajiny. Ako môžeme na obrázku pozorovať, Nemecko a Holandsko si udržiavali stabilnú úroveň dlhu verejnej správy aj tesne po vypuknutí dlhovej krízy. Napriek tomu, že tam isté zvýšenie pozorujeme, nedosahuje až takú vysokú hodnotu ako dlh v Portugalsku. [11, 12, 23, 24, 25]

„Situácia v Nemecku ukazuje, že aj napriek tomu, že sa rozpočet verejnej správy javil v posledných piatich rokoch značne vyrovnaný, hrubý dlh verejnej správy ako percento z hrubého domáceho produktu sa neustále pohybuje okolo 80%. V nasledujúcom roku síce očakávame pokles na 78% z HDP, no stále nedosahuje také hodnoty, aké sú potrebné na udržanie zdravej úrovne verejných financií. Môže za to predovšetkým finančná a hospodárska kríza. Predikcia na budúce roky je však priaznivejšia, nakoľko je v Nemecku momentálne veľmi dobrá demokratická situácia, zlepšuje sa demografická úroveň obyvateľstva a v budúcnosti sa neplánuje zaviesť žiadne prudké zvýšenie daní.“ [3, 11, 19] Na zlepšenie hospodárskej situácie v Nemecku bola už v roku 1963 zriadená fiškálna a rozpočtová rada - Rada ekonomických odborníkov. Bola vytvorená ako poradný orgán, pričom jej prioritným cieľom je posúdiť makroekonomický vývoj Nemecka. V posledných dvoch rokoch hodnoty hrubého dlhu verejnej správy ako percento z HDP v Nemecku klesajú aj vďaka hodnotiacim správam a prognózam o možnom ekonomickom vývoji krajiny, ktoré pravidelne vytvára Rada ekonomických odborníkov. Publikuje správy a hodnotenia, ktoré sa stali neoddeliteľnou súčasťou tvorby nemeckej hospodárskej politiky a majú výrazný vplyv na niektoré politické rozhodnutia v krajine. [3]

Holandsko dosiahlo najvyššiu úroveň hrubého dlhu verejnej správy práve v roku 2012, a to hodnotu 71,3 % HDP, dovtedy sa mu darilo udržiavať si úroveň dlhu verejnej správy okolo 60% HDP. Holandský úrad pre analýzu hospodárskej politiky dohliada na zlepšenie hospodárskeho rastu krajiny. Jedným z navrhovaných riešení je vytváranie ekonometrických modelov, ktoré umožňujú krátkodobé až strednodobé prognózy hospodárskeho vývoja v Holandsku a podporujú analýzu hospodárskej politiky. „Na základe spomínaných prognóz vieme potvrdiť, že aj holandská ekonomika je na ceste k zotaveniu a očakáva rast ekonomiky v tomto roku o 0,75 percenta a v budúcom roku o viac ako jedno percento, ktorý bude spôsobený zvýšeným vývozom, nízkou infláciou a rozsiahlymi investíciami, ktoré zaručia v krajine zvyšovanie zamestnanosti a predpokladajú na rok 2014 a 2015 len pozitívne vyhliadky.“ [4, 8, 9, 23, 24]

Švédsko dosahuje stabilne konštantnú úroveň dlhu verejnej správy približne okolo 40% HDP a v roku 2012 dosahoval verejný dlh úroveň 38,2% HDP. „Nakoľko v ekonomike stále pretrváva európska dlhová kríza, ani situácia v krajine nebola priaznivá, a to predovšetkým po veľkom vypuknutí finančnej krízy, na jeseň v roku 2008. V súčasnej dobe však ekonómovia očakávajú, že sa dopyt v budúcom polroku zvýši minimálne o 2%, čo spôsobí aj naštartovanie ekonomiky Švédska. Úroveň dlhu verejnej správy ovplyvňuje aj miera zamestnanosti v krajine, vyššie výdavky v oblasti vzdelávania a dlhodobý klesajúci trend spôsobený starnutím obyvateľstva. V súčasnosti je podiel zamestnaných osôb na celkovom obyvateľstve v rovnakom vekovom rozmedzí ustálený. Miera zamestnanosti medzi rokmi 2010 a 2011 síce vzrástla, aktuálne však stagnuje, v závislosti od populačného rastu.“ [13, 26]

Rada pre fiškálnu politiku vo Švédsku hodnotí fiškálnu politiku krajiny za celkovo vyváženú, no podľa jej názoru sa vláda nemá zameriavať len na krátkodobú stabilizáciu politiky, ale mala by sa aj v priebehu hospodárskeho cyklu snažiť o dosiahnutie prebytku. Napriek tomu, že vo verejnom sektore očakáva finančnú stabilitu je dôležité ustrážiť smerovanie vládnych výdavkov a vytýčiť si výdavkové stropy, čím docieli udržateľnosť verejných financií v dlhodobom horizonte. Z globálneho aspektu je na tom švédske hospodárenie veľmi dobre, nakoľko dlhodobo, aj po kríze, vykazuje úroveň hrubého verejného dlhu v rozmedzí 35 - 40% ako percento z HDP, čo je hlboko pod maximálnou povolenou úrovňou verejného dlhu 60% HDP, podľa Maastrichtských kritérií a vytvára tak švédskemu hospodárstvu veľký fiškálny priestor, v porovnaní s ostatnými krajinami EÚ. [8, 9, 13, 26]

Hospodárenie Írska bolo až do roku 2007 jasným príkladom prekvitajúcej ekonomiky, nakoľko hrubý verejný dlh ako percento z HDP dlhodobo predstavoval necelých 25%. Práve táto krajina

je zrejmým a hrozivým príkladom ako globálna finančná kríza poškodila finančné zdravie celej krajiny. „Írsko začalo byť preto príťažlivé a zaznamenalo prudký nárast obyvateľstva, spôsobený prisťahovalcami. Nakoľko Írom rástli príjmy, čoraz viac obyvateľov si mohlo dovoliť vlastný dom, či byt. Ceny nehnuteľností a domov však v krajine do roku 2007 vzrástli štvornásobne, čo prekonalo vývoj cien nehnuteľností aj v Spojených štátoch.

Naoko priaznivý vývoj viedol k tomu, že írske banky poskytovali príliš veľké úvery, napriek tomu, že ceny nehnuteľností rástli oveľa rýchlejšie než príjmy. V dôsledku toho banky sprísnili kritériá pri poskytovaní úverov, tie začali opäť klesať, no írske stavebníctvo zaznamenalo prudký úder, keďže im zostávalo čoraz viac nepredaných nehnuteľností. Keďže írske stavebníctvo tvorilo výraznú časť na HDP krajiny, problém sa preklopil a spôsobil oslabenie celého hospodárstva a ekonomiky krajiny. Viaceré írske banky skrachovali a na jeseň roku 2008 vláda vyhlásila, že ručí za záväzky všetkých írskych bánk. Hrubý verejný dlh rástol a v roku 2012 dosahoval až hodnotu 117,4% HDP. Aj napriek tomu, že si Írsko požičalo na záchranu pred bankrotom vyše 85 miliárd eur od Medzinárodného menového fondu a od partnerov v eurozóne, nedokázalo zabrániť krachu bánk a mnohé vysoké ciele, ktoré si v posledných dvadsiatich rokoch írska vláda stanovila nakoniec zlyhali.“ [15, 21 ,22] Práve nepriaznivá ekonomická situácia vyústila v roku 2012 do zriadenia Írskej fiškálnej poradnej rady. Pomáha nezávisle posudzovať, hodnotiť a následne verejne vyjadriť, či írska vláda plní svoje rozpočtové ciele v takej miere, v akej si ich na dané obdobie stanovila. Rada má dohliadnuť na dodržiavanie fiškálnych pravidiel v budúcom období a prispieť tak k ozdraveniu verejných financií a zníženiu celkového verejného dlhu.

Vo Veľkej Británii bola v súvislosti s finančnou krízou podobná situácia ako v ostatných krajinách EÚ. „Už v predkrízovom období možno vidieť, že sa v rámci finančného sektora zvyšovala úroveň hrubého verejného dlhu. V roku 2007 sa tak, ako aj iné európske krajiny, Veľká Británia zadlžovala a úroveň dlhu nadobudla hodnotu 52,7% HDP a stále rástla. V nasledujúcom roku 2008 vstúpila britská ekonomika do najrozsiahlejšej recesie a nastal prudko stúpajúci trend zadlžovania. V súčasnosti predstavuje hrubý verejný dlh až 88,7% HDP. Napriek tomu, že podľa posledných štúdií sa britská ekonomika zotavuje, stále pretrvávajú problémy v oblasti produktivity práce, rastu reálnych miezd, exportu a stále väčšou hrozbou je starnutie populácie.“ [3, 24] V nadväznosti na avizovaný stav situácie vo Veľkej Británii sa v roku 2010 vláda rozhodla zriadiť nezávislú fiškálnu organizáciu - Úrad pre rozpočtovú zodpovednosť, ktorej úlohou je v prvom rade vytvoriť komplexný plán na zlepšenie hospodárenia štátu. Zároveň má zabezpečiť väčšiu transparentnosť a dôveryhodnosť publikovaných ekonomických, rozpočtových a hospodárskych správ a prognóz, z ktorých britská fiškálna politika vychádza.

V neposlednom rade môžeme na obrázku 1 pozorovať aktuálny vývoj dlhu verejnej správy na Slovensku, ktorý v súčasnosti dosahuje úroveň 54,8 % HDP, čo je stále v rámci tolerancie vyplývajúcej z ústavného zákona o rozpočtovej zodpovednosti, a teda neprekročil hodnotu 55%, pri ktorej by už ministerstvo financií viaže výdavky štátneho rozpočtu vo výške 3 % z celkových výdavkov štátneho rozpočtu. Podľa programu stability Slovenskej republiky na roky 2013-2016, sa vláda snaží znížiť dlh verejnej správy na úroveň 51,6 % HDP, čo by pretavením do praxe znamenalo, že sa naše verené financie priblížia k stavu dlhodobej udržateľnosti. V tomto pláne jej napomáha aj novovzniknutá Rada pre rozpočtovú zodpovednosť, prostredníctvom rôznych analýz a rozpočtových prognóz. V budúcnosti sa chce zamerať na komplexnejšie a podrobnejšie analýzy, ktoré budú obsahovať širšie spektrum ukazovateľov, a to predovšetkým v oblasti trhu práce.

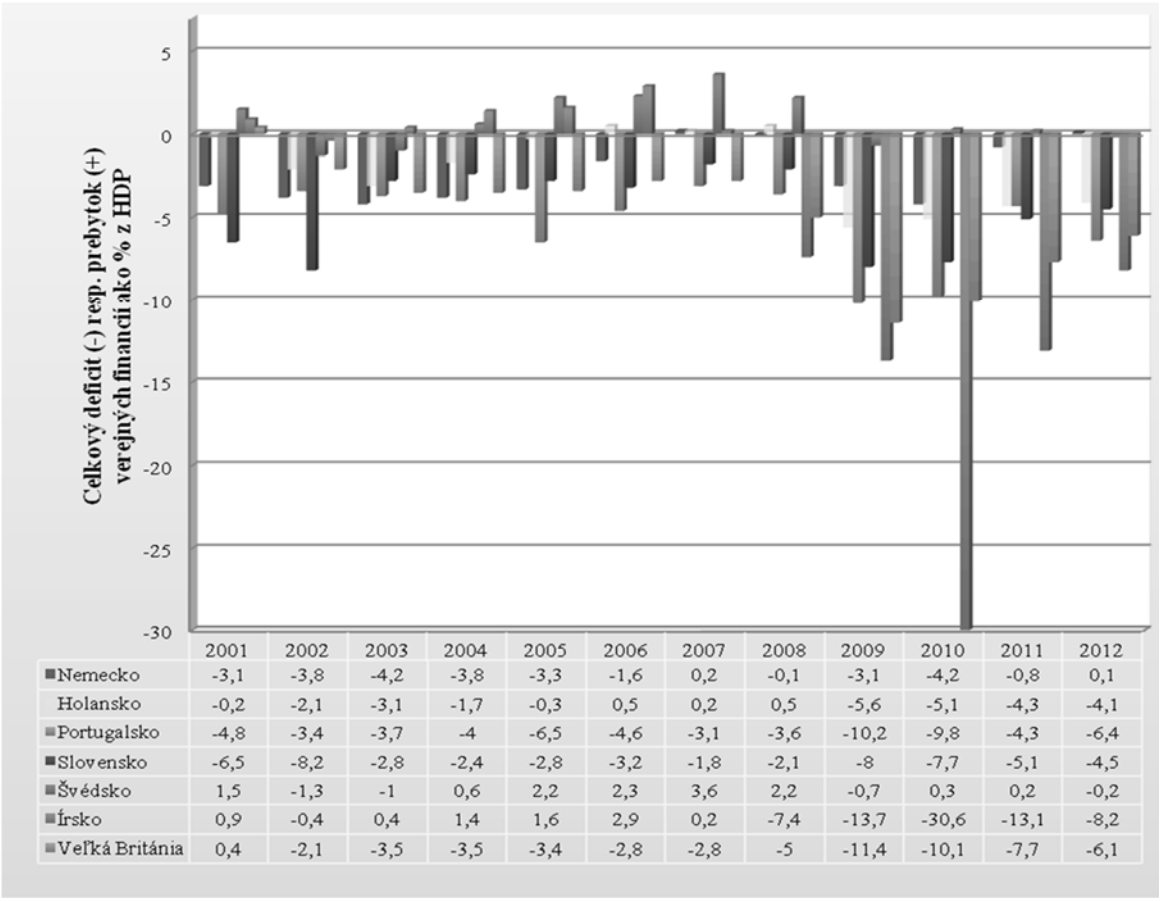
4 Hospodárenie s verejnými financiami vo vybraných krajinách EÚ

V prvom rade je potrebné si uvedomiť, že: „verejný deficit, respektíve prebytok je definovaný v Maastrichtskej zmluve ako čisté pôžičky, ktoré sú prijaté alebo poskytnuté sektoru verejnej správy podľa Európskeho systému účtov, pričom sa vykazuje ako percentuálny podiel HDP. Údaje za sektor verejnej správy, medzi ktoré patrí ústredná štátna správa, regionálna štátna správa, miestna samospráva a fondy sociálneho zabezpečenia, sú konsolidované medzi subsektormi na národnej úrovni.“ [1]

Nasledujúci obrázok 2 poukazuje na dosahované hodnoty štrukturálneho deficitu, už popisovaných európskych krajín. Pozorujeme ako sa vyvíjal celkový deficit, respektíve prebytok verejných financií ako percento z HDP vo vybraných európskych krajinách, v časovom rozmedzí od roku 2001 až po súčasnosť. Podobne ako pre opisovaní predošlého fiškálneho indikátora, aj v tomto vidíme, že odzrkadľuje globálny stav hospodárenia s verejnými financiami a ich celkové finančné zdravie. Nakoľko je podľa stanovených kritérií možné dosahovať deficit maximálne vo výške 3% HDP je zrejmé, že niektoré štáty nutne potrebujú ozdraviť verejné financie a nastoliť prísne kritériá a opatrenia vedúce k ich trvalej a dlhodobej udržateľnosti.

Spomedzi skúmaných krajín je na tom s hospodárením najhoršie Írsko, ktoré v roku 2010 vykazovalo deficit verejných financií vo výške 30,6% HDP. Ako sme už v predchádzajúcom fiškálnom ukazovateli opisovali, nepriaznivá situácia v krajine a skryté problémy v stavebníctve, spôsobili krach bánk a nutnosť požičať si viac ako 85 miliárd eur, z Medzinárodného menového fondu a od partnerov eurozóny, na ozdravenie hospodárstva Írska. „Prvým hrozivým výsledkom, v dôsledku zhoršenia fiškálnej pozície, bol deficit vykazovaný už v roku 2008, a to vo výške 7,4% HDP. V dôsledku avizovanej finančnej krízy, poklesom reálneho hrubého domáceho produktu, daňových príjmov a zhoršením príjmov z fondu sociálneho poistenia sa deficit v nasledujúcom roku prehĺbil na 13,4% a v roku 2010 dokonca na rekordných 30,6% HDP.“ [15, 21 ,22] Vďaka konsolidácii verejných výdavkoch, stanovenia výdavkových stropov a limitov a tiež ďalším opatreniam v oblasti zvyšovania daní, sa Írsku aspoň sčasti podarilo v posledných dvoch rokoch znížiť deficit a aktuálne dosahuje hodnotu 8,2% HDP, čo je však stále pod požadovaným výsledkom 3% HDP.

Obrázok 2 Celkový deficit (prebytok) verejných financií ako % z HDP vo vybraných krajinách EÚ



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nemecko	-3,1	-3,8	-4,2	-3,8	-3,3	-1,6	0,2	-0,1	-3,1	-4,2	-0,8	0,1
Holansko	-0,2	-2,1	-3,1	-1,7	-0,3	0,5	0,2	0,5	-5,6	-5,1	-4,3	-4,1
Portugalsko	-4,8	-3,4	-3,7	-4	-6,5	-4,6	-3,1	-3,6	-10,2	-9,8	-4,3	-6,4
Slovensko	-6,5	-8,2	-2,8	-2,4	-2,8	-3,2	-1,8	-2,1	-8	-7,7	-5,1	-4,5
Švédsko	1,5	-1,3	-1	0,6	2,2	2,3	3,6	2,2	-0,7	0,3	0,2	-0,2
Írsko	0,9	-0,4	0,4	1,4	1,6	2,9	0,2	-7,4	-13,7	-30,6	-13,1	-8,2
Veľká Británia	0,4	-2,1	-3,5	-3,5	-3,4	-2,8	-2,8	-5	-11,4	-10,1	-7,7	-6,1

Prameň: Eurostat, dostupné na: <http://ec.europa.eu/geninfo/legal_notices_en.htm>, 2014.

Medzi krajiny vyznačujúce sa značnými problémami s hospodárením, patrí aj Portugalsko, ktoré v roku 2009 dosiahlo rekordný deficit, a to vo výške 10,2% HDP. Ani o rok neskôr sa situácia výrazne nezlepšila, keďže vykazovaný deficit verejných financií klesol len o 0,04 % HDP. Tento prudký nárast deficitu bol zapríčinený predovšetkým dlhovou krízu, ktorá vypukla v roku 2008 a ktorá priniesla nemalé problémy v hospodárení portugalskej vlády. Napriek tomu, že jej deficit klesá a približuje sa k požadovanej hodnote, krátenie výdavkov a zavádzanie opatrení na jeho zníženie nie je stále postačujúce. [2, 12, 25]

Veľká Británia má v posledných rokoch taktiež problém so zvládaním udržateľnosti deficitu verejných financií na požadovanej úrovni, nakoľko od vypuknutia krízy sa pohybuje v záporných hodnotách pod troma percentuálnymi bodmi HDP. V roku 2007 ešte bola britská vláda schopná vykazovať deficit v rámci referenčnej hodnoty 3% HDP, no v roku 2008 sa v dôsledku finančnej krízy a recesie ekonomiky, odrazili tieto negatívne vplyvy na hospodárení krajiny, pretože deficit dosahoval úroveň 11,4% HDP. O rok neskôr sa vláde podarilo reštriktívnymi opatreniami docieliť zníženie deficitu o 1,3%, ale stále sa pohybovala v neúnosných číslach.“ [3, 5, 6, 7] V roku 2010 britská vláda zaviedla Úrad pre rozpočtovú zodpovednosť, ktorému sa vďaka dôslednému monitorovaniu dlhu verejnej správy a monitorovanie dodržiavania rozpočtových pravidiel, podarilo implementovať komplexný strategický plán na ozdravenie verejných financií. Deficit sa podarilo znížiť a aktuálne dosahuje hodnotu 6,1% HDP, pričom očakáva stále znižovanie deficitu, nakoľko sa britská ekonomika zotavuje.

Protikladom je hospodárenie Švédska a Nemecka, ktoré dlhodobo dosahujú nízky deficit verejných financií. V roku 2012 dosiahlo Nemecko dokonca prebytok vo výške 0,1% HDP. Švédsko dosahovalo ako jediná krajiny, spomedzi nami vytýčených krajín, aj tesne pred vypuknutím krízy prebytok verejných financií, čo svedčí o vyváženej fiškálnej politike krajiny a o dosiahnutí trvalej udržateľnosti v dlhodobom časovom horizonte. Holandsko a Slovensko zaznamenali najväčší prepad v krízovom období, najmä v rokoch 2009 a 2010, pričom v posledných dvoch rokoch dosahujú výšku celkového deficitu verejnej správy na približne rovnakej úrovni, a teda okolo – 4% HDP, čo však stále nespĺňa stanovený strop troch percent hrubého domáceho produktu. Cieľom oboch krajín je vytvoriť aj za pomoci fiškálnych a rozpočtových rád také opatrenia, ktoré povedú k úspešnej konsolidácii a indikátory udržateľnosti by mali dosahovať hodnotu maximálne -1 % HDP do roku 2018. Ak by sa teda vláde, či už súčasnej alebo budúcej, podarilo dosiahnuť takýto nízky deficit verejných financií, zaručilo by to krajine stav dlhodobej udržateľnosti a výrazný krok k ozdraveniu verejných financií. [13, 24, 26]

5 Záver

Globálne možno teda zhodnotiť, že Slovensko ako aj ďalšie spomínané krajiny zaznamenávajú v posledných obdobiach pozitívne smerovanie ekonomiky. V prvom rade za to vďačia rozsiahlym štrukturálnym reformám, konsolidácii verejných financií, poklesu výdavkov a stanoveniu výdavkových stropov a limitov. V neposlednom rade situáciu krajín ovplyvňuje a posilňuje zvyšujúca sa produktivita práce, zamestnanosť, export a zahraničný dopyt. Všetky tieto faktory súbežne vplývajú na výšku deficitu verejných financií a v kooperácii s rozpočtovými radami vedú k zlepšeniu hospodárenia krajín a k celkovému ozdraveniu verejných financií.

Poďakovanie

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IMPACT OF THE LATEST FINANCIAL CRISIS ON THE TELECOMMUNICATIONS SECTOR

Petr BUDINSKÝ[1]

Vratislav SVOBODA[2]

[1] University of Finance and Administration, Faculty of Economic Studies, Estonská 500, 101 00 Prague 10, Czech Republic. Tel.: +420 210 088 818, E-mail: petr.budinsky@vsfs.cz

[2] Czech Technical University Prague, Faculty of Electrical Engineering, Department of Economics, Management and Humanities, Technická 2, Prague 6, 16627, Czech Republic. Tel.: +420 737 20 30 30, E-mail: vsvoboda@jtbank.cz

ABSTRACT

This study focuses on how the most recent financial crisis and the current macroeconomic situation influence the telecommunications sector, particularly in the US. The analysis suggests that the influence of the latest economic crisis on the telecommunications industry has been less cyclical than it has been for the stock market as a whole as measured by the S&P 500 US equity index. The analysis also demonstrates that telecommunications indices, and thus telecommunications sectors, are less influenced by current monetary expansion than is the US equity market as a whole.

Keywords: Debt Crisis, Equity Market, Diversification, Investment Risk, Monetary Expansion, Quantitative Easing, S&P500, Telecommunications Sector.

JEL codes: G11, G15, G23

Introduction

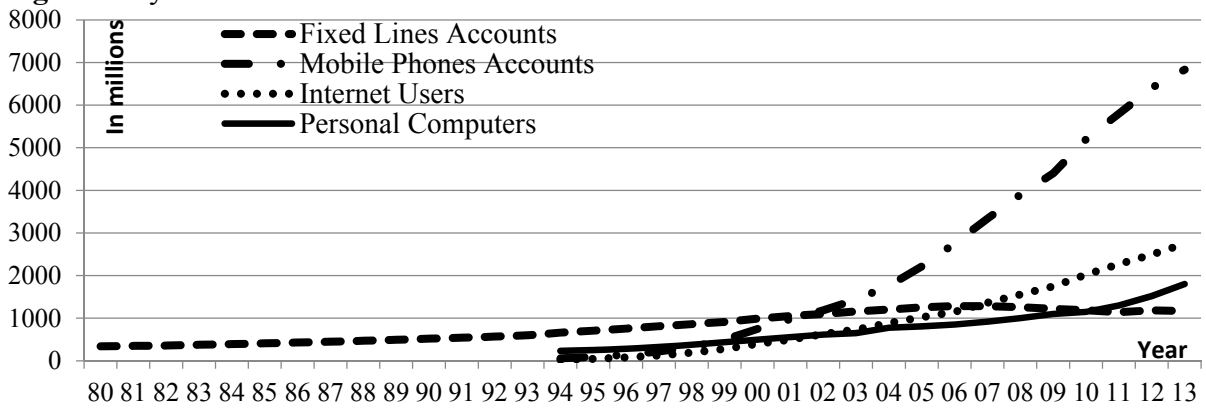
Publicly traded telecommunications companies all over the world – still with limited competition and thus with strong dominance of domestic markets – provide services to most households. Wireless data transmission, continuous internet access, and utilization of mobile data services – all associated with the current boom in smartphones and tablets – only demonstrate that we live in a time which is unique as a result of the development and utilization of information and telecommunications technologies. The universal and free flow of information influences all aspects of everyday life not only in the developed world but also across the globe.

If telecommunications firms contribute significantly to contemporary economic growth and progress, and if that involves long-lasting development affecting all areas of human activity, then we may ask whether telecommunications firms, due to their status and strong market position, could become entrepreneurial subjects stable and resistant to economic cycles and thus an important part of diversification for portfolio investors. This paper examines through the eyes of financial investors the resistance of the American telecommunications sector to the recent financial crisis of 2008–2009 and the subsequent debt crisis. The study utilizes data for the S&P 500 leading US equity index and its subindex devoted to the telecommunications industry, the S&P 500 Telecommunication Services Index. This index represents 56 publicly traded telecommunications companies from the United States.

1 Why Focus on the Telecommunications Sector?

Telecommunications' history of more than 100 years includes many milestones important for the development of civilization. After World War II, the telecommunications industry encircled the world with its communication channels. In the late 1940s, Bell Laboratories, a subsidiary of AT&T, developed a transistor – an event that became a milestone for dramatic developments within not only the telecommunications industry, but fundamentally a much broader industry called information technology. In addition to transmitting sounds, telecommunications companies began offering commercial use of data transfer. Research and development continuously propelled by the telecommunications sector supplemented these efforts by broadcasting news across continents via satellites such that telecommunications could be invaded by digitalization, light-wave communication channels, mobile telephony and, ultimately, the internet. The last stage of development seems to be the finalization of the information revolution's fourth phase represented by mobile transfer and use of enormous data capacities and their processing. Communication lines are no longer restricted to the single fixed location of the telecommunications services user; they are everywhere and omnipresent, basically enabling immediate access to all kinds of information. From an economic perspective, the spread and processing of information is one of the most significant economic sectors, representing ca 2.5% of the world's GDP. The rapid development of terminals and the internet across the world is presented in Figure 1.

Figure 1 Dynamics of Worldwide Growth in Telecommunications Services Users



Data sources: ITU, [1]

While the number of landlines has been at a standstill or decreasing for the past ten years, the numbers of mobile phone, computer and internet users have been growing at rapid rates. In 2013, total revenues for global telecommunications businesses amounted to USD 5,000 billion. All of this is occurring in a world that is facing three main change factors. The first basic factor is the irreversible process of population ageing in the developed part of the world, as well as in Russia and China, which will result in many challenges for the global economy. The second factor is the growth in economic and geopolitical importance of the main actors among developing economies. The last factor is the indebtedness of most developed countries and latent economic stagnation in Europe, the US and Japan. This situation presents an important challenge for institutional investors, such as pension funds, investment funds, hedge funds and insurance companies, which urgently need to provide necessary portfolio returns on financial assets accompanied by reasonable risk for their clients.

2 Impact of Economic Crises on the Telecommunications Sector

The external macroeconomic environment is one of the key factors influencing returns for investors in publicly traded securities. This article aims to assess this impact on the vast

telecommunications sector. The recent financial and economic crisis of 2008–2009, which subsequently escalated into the present European debt crisis, spared no sector. Jiang et al. [2] noted which sectors of the US economy were most affected by this crisis and by previous crises since 1973 and which sectors, in contrast, have been left relatively unscathed by the critical situation. The data presented there have been supplemented and analysed with a view to understanding how telecommunications firms were affected by the crises in question (see Table 1). Even though the crisis on the capital markets from 2008 is termed as unprecedented, it shows features in common with previous crises, and in particular from the periods of 1973–1975 and 2001, as measured by the stock price decrease for the S&P 500 index as a whole and for most of its sectors.

Table 1 indicates that, with the exception of 1980–1982, the stock prices of US telecommunications companies had suffered on average more during previous recessions (prior to 2008) than had stocks from other sectors. The 2011 period presented in Table 1 cannot truly be called a crisis period; it is rather a continuation of the 2008–2009 crisis and its transformation into the debt crisis of Southern European countries. The failure of state finances in Greece as well as the alarming situations in Portugal, Spain and Italy brought about high volatility in financial markets, which was further heightened by the revolutionary events in North Africa known as the "Arab Spring". This occurred despite the fact that central banks, particularly the US Federal Reserve (Fed) and the European Central Bank, did not stop supplying the world with new money. This phenomenon is known as "quantitative easing" and is described in another chapter herein.

Table 1 Economic Crises and Their Impact on Returns in US Sectors

S&P 500 Economic Sector	1973–1975	1980–1982	1990	2001	2008	2011
Consumer discretionary	–54%	–15%	–30%	–42%	–35%	4%
Consumer staples	–38%	–10%	–10%	–15%	–18%	11%
Energy	–35%	–38%	–7%	–24%	–36%	3%
Financial services	–56%	–13%	–35%	–18%	–57%	–18%
Health care	–39%	–9%	–5%	–52%	–25%	10%
Industrials	–47%	–6%	–20%	–26%	–42%	–3%
Information technology	–49%	–10%	–15%	–76%	–44%	1%
Materials	–26%	–7%	–15%	–15%	–47%	–12%
Telecommunications	**–40%**	**–6%**	**–20%**	**–76%**	**–37%**	**1%**
Utilities	–41%	–8%	–10%	–39%	–32%	15%
S&P 500 index	**–43%**	**–13%**	**–17%**	**–38%**	**–38%**	**0%**

Note: Measured as changes in values of the S&P 500 US index and its sector sub-indices.
Data sources: [2], Bloomberg, own calculations

Table 1 shows which sectors suffered most during this period. It is again evident that telecommunications were doing better than market average, even though their share prices grew only by 1% in 2011. The table implies that telecommunications operators, or rather their shareholders, were the most affected by the financial crisis during 2000–2002 that came as a result of the overheating of the US capital market and subsequent burst of the so-called dot-com bubble. This period was preceded by more than a decade of extensive growth within the telecommunications sector. This rapid development was induced by deregulation and privatization processes in many countries. A phenomenon related to this development was telecommunications firms' high indebtedness as a result of creating new working capacities,

purchasing licences to run mobile telecommunications services, and acquiring other firms with the objective of diversifying their product portfolios.

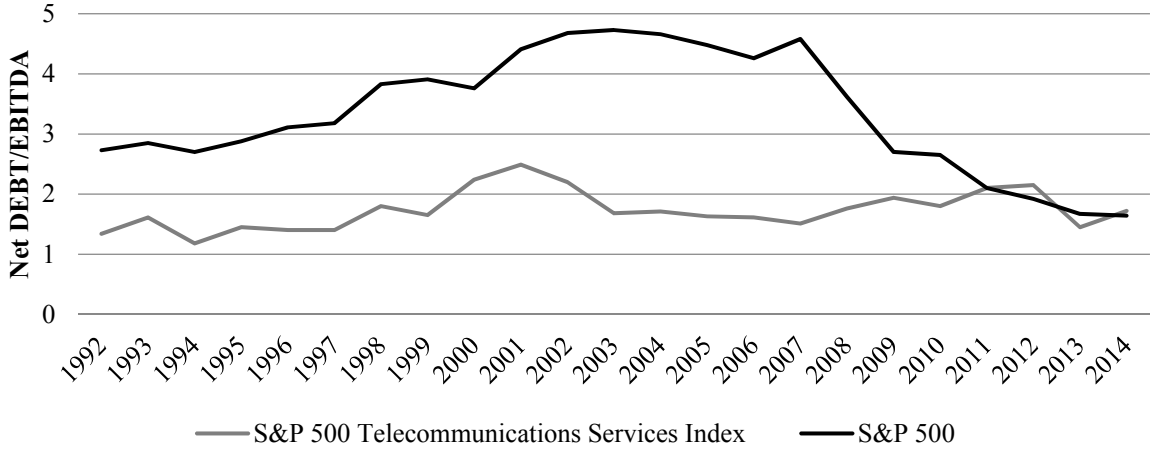
In the years following the internet crisis, telecommunications companies needed to rid themselves of excessive indebtedness and focus on their own restructuring, as demonstrated in Figure 2. The graph shows the decrease in the debt/EBITDA ratio. Restructuring success in telecommunications started to appear several years after the burst of the so-called dot-com bubble in 2000. Most significant telecommunications operators revitalized their balance sheets and stabilized their incomes thanks to mobile and data services. Telecoms began to be less dependent on the economic cycle. This fact was confirmed in the period of the most recent significant crisis during 2008–2009, as telecommunications companies suffered less economic damage and their shares lost less value than did firms in other sectors (see Table 1). The fact that publicly traded telecommunications firms in the US demonstrate less sensitivity to market changes is also shown by the data in Table 2. Together with utilities, telecoms show the least volatile returns and beta and thus greater stability in comparison with other sectors.

Table 2 Standard Deviations of Returns and Betas for S&P 500 Sectors

Sector	Consumer Discretion-ary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	**Telecoms**	Utilities	**S&P 500**
St. Dev. in %	15.2	10.2	19.1	17.3	11.7	16.7	15.7	19.3	**13.3**	12.2	13.0
Beta	1.1	0.6	1.2	1.2	0.7	1.2	1.1	1.3	**0.4**	0.4	1.0

Source: 5-year values based on data from Standard and Poor's (28 November 2009–28 November 2014) [3]

Figure 2 Net debt to EBITDA of the S&P 500 Telecommunications Services Index in Comparison with the S&P 500 Broad Market Index



Data source: own calculations based on Bloomberg data

Note: Measured as the ratio of total net debt to EBITDA at US telecommunications companies included in the S&P 500 Telecommunications Services Index and the S&P 500 market index for the period from 1992 through the third quarter of 2014.

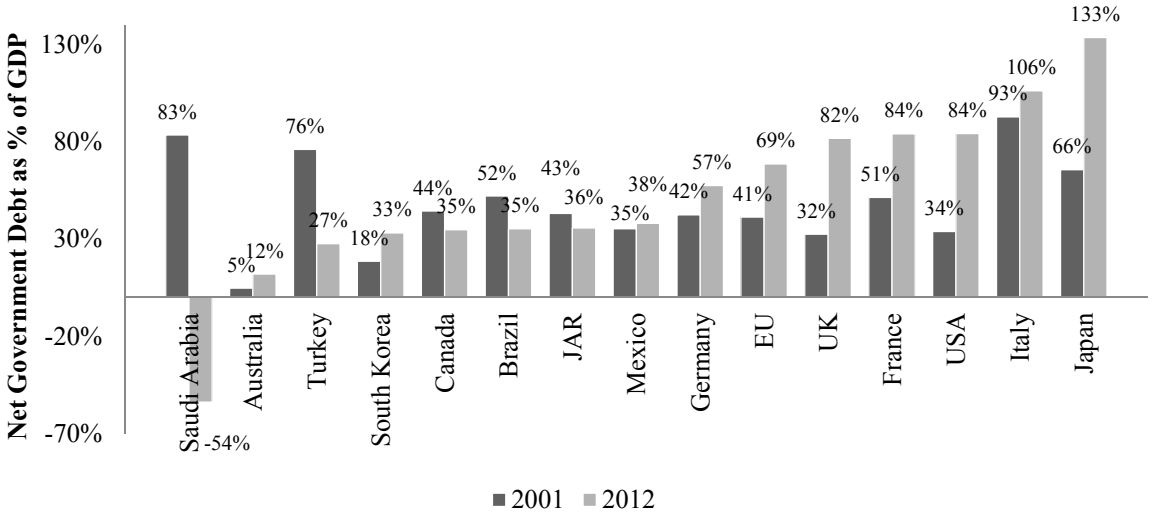
3 Current Monetary Expansion and its Impact on the Telecommunications Sector

The most recent major financial crisis, triggered by collapse of the mortgage market in the US during 2007–2008, gave rise to the phenomenon described as the so-called "credit crunch". This term refers to the loss of confidence among banks and between banks and their clients whereby financial institutions are less and less willing to provide needed capital. The credit structure that was – and is – absolutely essential to developed economies had frozen up. This

situation subsequently undermined people's trust in the financial system and caused a chain reaction which resulted in a large drop in the prices of financial assets. While one might be correct to object that in a liberal and market-oriented world economic fluctuations (i.e. economic cycles) constitute a normal phenomenon, this is a particularly unpleasant one.

The growing indebtedness of most countries by the end of 2013 (see Figure 3) combined with the escalating fiscal crisis in Greece to cause a high level of uncertainty on European capital markets. This uncertainty then shifted to the remaining problematic economies of Southern Europe and manifested itself as rapid growth in the risk premium on state bonds of such countries as Spain, Italy and Portugal. Only massive interference from the European Central Bank, which similarly to the central banks of the US, Great Britain and Japan did not cease to inject new financial resources, gradually calmed the 2012–2013 situation, as demonstrated by the decrease in yields to maturity for long-term government bonds.

Figure 3 Net Government Debt as % of GDP



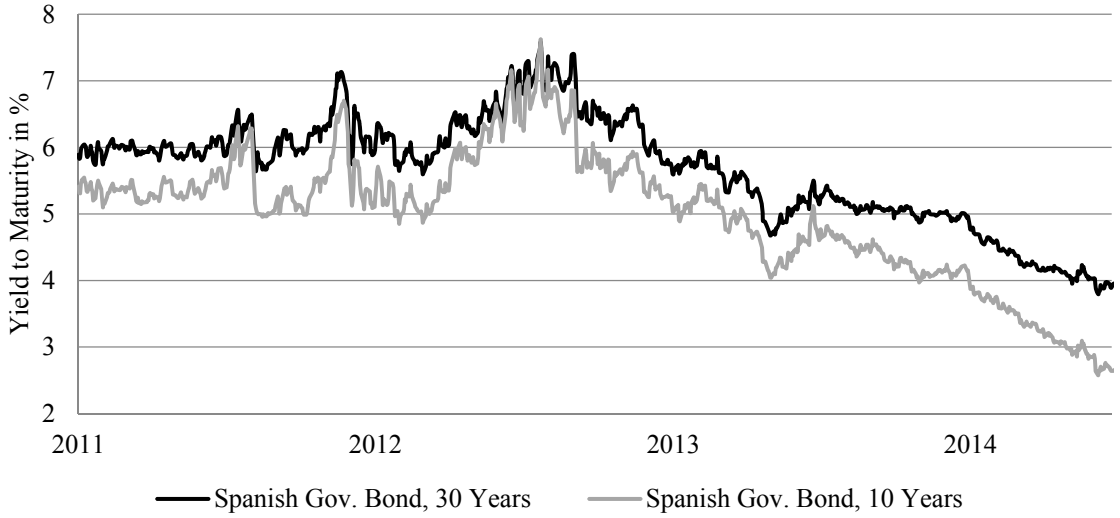
Data sources: OECD [4], own calculations

Paradoxically, without any distinct improvements in the economic fundamentals of Southern European countries, yields on their government bonds further decreased to extreme lows in 2014. Figure 4 provides an example documenting the development of yields to maturity for Spain's government bonds. The important question to ask today is what long-lasting impact the outcome of the so-called quantitative easing can have on the economic environment and, subsequently, on the main economic actors, i.e. on corporations and other firms. Should we expect further weakening of the euro, similarly as in the case of the Japanese yen, or distinct increases in inflation, or will we witness something far worse?

The prices of publicly traded stocks and bonds are affected by many factors. Internal factors include the firms' profitability and quality of business strategy and management. External factors include inflation, stability in the external economic environment, and investors' risk awareness. If we look critically at what is currently the main influence on stock and bond prices on international financial markets, however, we find that it is basically the behaviour of central banks. The phenomenon known as quantitative easing has been used in practice by central banks of many countries since the most recent financial and subsequent economic crisis, especially by the central banks of the US, European Union, Great Britain and Japan. For example, the Japanese yen dramatically weakened against the US dollar due to a liquidity injection from March 2013 to the end of year 2013, when the Bank of Japan was feeding the economy with USD 70–75 billion a month during most of 2013. In this way, the Bank of Japan closely approached a value corresponding to the monthly amount the Fed was supplying to the US

banking system by means of quantitative easing (ca USD 83 billion per month). A problem, however, lies in the fact that the Japanese economy is just one-third the size of the US economy. This enormous amount of money directed from the Bank of Japan to the financial sector and subsequently to the Japanese economy resulted in an increase in Japanese stock prices for 2013 – measured by growth of the Nikkei 225 equity index as denominated in domestic currency – by an unprecedented 56.7%, the largest run-up since 1991. At the same time, however, the Japanese yen weakened against the US dollar by 17.6% and so the returns on Japanese stocks in 2013 as recalculated in US dollar terms were reduced by a half – to "only" 29.1%. This is a textbook example of how monetary expansion and state indebtedness promote consumer price inflation and financial asset price inflation.

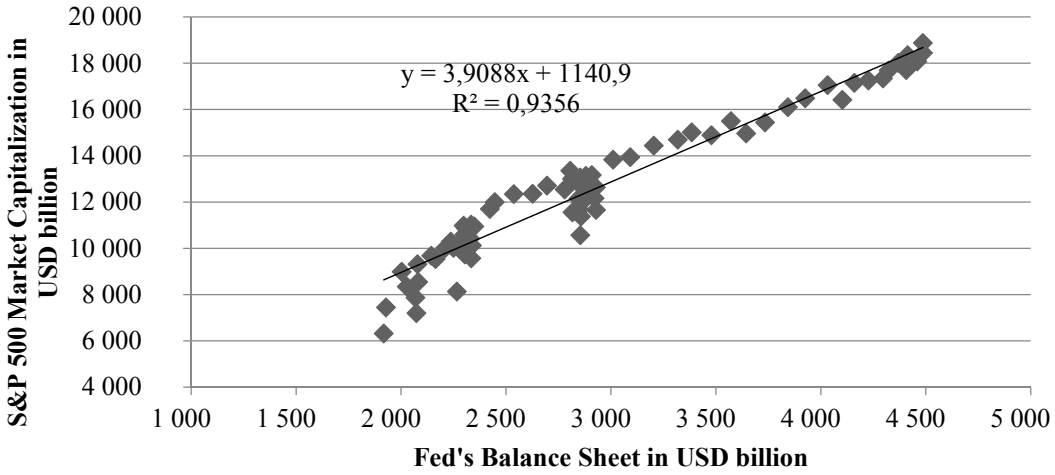
Figure 4 Development of yields to maturity of Spanish government bonds



Data sources: Bloomberg, [5], calculations as of 8 October 2014

If we mention financial assets price inflation even in the US in this context, we are not far from the truth. When we compare the market capitalization of the S&P 500 index with the size of the US Federal Reserve's balance sheet, we reach a surprising conclusion. As regression analysis demonstrates (see Table 3), the dependency of the change in the S&P 500 US equity index's market capitalization on the growth of the central bank's balance sheet has increased in the past 6 years in comparison to the pre-crisis period. This hypothesis is confirmed by the coefficient of determination (R^2) of 0.9356 for the post-crisis period of 31 December 2008–27 November 2014 compared to the R^2 of 0.8322 describing data correlation for the period 30 September 2002–29 August 2008. The 2002–2008 period was prior to the most recent economic crisis and therefore prior to massive liquidity injections into the US economy. We intentionally excluded from this calculation the turbulent period of several months after the collapse of Lehman Brothers in mid-September 2008 and the subsequent dramatic crashes in financial market which lasted several weeks. The almost linear relationship between the two described data sets is depicted in Figure 5.

Figure 5 Regression Analysis of S&P 500 Market Capitalization and Size of the Fed's Balance Sheet from 31 December 2008 to 28 November 2014



Data source: own calculations based on Bloomberg monthly data

Table 3 Summary Statistics of Regression Analysis of S&P 500 and Its Telecommunications Subindex and the Fed's Balance Sheet

X values:	**US Federal Reserve's Balance Sheet**			
Y values:	S&P 500 Market Capitalization	S&P 500 Market Capitalization	S&P 500 Telecoms Sector Market Cap.	S&P 500 Telecoms Sector Market Cap.
Period	09/2002–08/2008	12/2008–11/2014	09/2002–08/2008	12/2008–11/2014
Multiple R	0.9122	0.9673	0.7000	0.8108
R Squared	0.8322	0.93564	0.4900	0.6575
Adjusted R Squared	0.8298	0.9347	0.4827	0.6526
Standard Error	698.93	791.68	41.04	30.34
No. of Observations	72	72	72	72

Data source: own calculations based on Bloomberg data
Note: Calculations are based on monthly data. *F*- and *P*-values of significance for all measures are less than 0.0001.

The process of quantitative easing has been unprecedented, as has been its influence on the economies of developed countries through the supply of new money from central banks over the past 5 years. The impact of quantitative easing on growth of the US equity market is also evident from Figure 6, which uses a ratio to compare the size of the Fed's balance sheet with the market capitalization of the S&P 500 US equity index. Figure 6 clearly demonstrates that since 2009 the growth rate of the central bank's balance sheet has been almost identical with that of the market capitalization for the stock market as a whole.

The question remains as to the extent that recent and current monetary expansion has affected the increase in the stock prices of listed telecommunications companies. Regression analysis suggests that the impact of monetary expansion on US telecommunications companies' stock prices is rather positive (Table 3).

Figure 6 Ratio of the Market Capitalization of the S&P 500 to the Value of the US Central Bank's Balance Sheet

Note: Data refer to the period of 30 December 1994–31 August 2014 and are calculated from weekly data as the value of market capitalization of the S&P 500 divided by the value of the US Fed's balance sheet. Data source: calculations based Bloomberg data

The degree of correlation between the change in the Fed's balance sheet and the change in the US S&P 500 Telecommunication Services Index's market capitalization during the 5-year pre-crisis period from the end of September 2002 until August 2008 was relatively weak, as the R^2 was just 0.49. For the period after December 2008, a few weeks after the first launch of monetary expansion from the US central bank, in contrast, the R^2 is 0.6575, indicating medium-strength correlation between the size of the US central bank's balance sheet and telecommunications companies' market capitalization. We can thus conclude that it is highly probable that recent monetary expansion affected telecommunications companies' market value. Nevertheless, the correlation between these two sets of data, as measured by the coefficients of determination, is considerably smaller than is that for the US stock market as a whole, thus demonstrating telecommunications' lower sensitivity to crucial changes in the economy. In our study, we focused on the US equity market and its telecommunications subindex. This was primarily because data from the US economy and its financial markets are among the most widely available and provide long-term index indicators. It is worthy of note that a similar study, albeit with a slightly limited amount of global data, confirmed a similar trend i.e. that coefficient of determination, the R^2 of the S&P Global 1200 Telecommunication Services Index's market capitalization and the size of the Fed's balance sheet also showed an increasing pattern when comparing pre- and post-crisis periods.

It is very important to note, of course, that the regression analysis was used only to demonstrate the trend and its changes rather than to build a forecasting model.

4 Conclusion

Although central banks intensively resisted the financial and economic crisis of 2008–2009 using all the tools at their disposal, the indebtedness of individual countries was affected. Developed countries' government debt as well as that of firms and households is a real problem that undermines future growth in the developed world. Even though the debt crisis and potential collapse of Southern European states is not currently at the centre of the media's attention and the yields to maturity of government bonds in Southern Europe have decreased to record lows, the possibility for serious economic problems continues to exist for certain EU countries. GDP

growth in Europe as well as North America is not expected to reach a level that could efficiently solve the problem of indebtedness. The flow of new money from central banks, particularly to the financial sector, is causing financial asset price inflation. In recent years, we have witnessed increases in the prices of both stocks and bonds.

This study focused on the influence of the current debt crisis and post-crisis macroeconomic situation on the US telecommunications sector. Our own analysis suggests that telecommunications indices, and thus telecommunications sectors, are less influenced by current monetary expansion than is the US equity market as a whole. Also demonstrated is that the influence of the latest economic crisis on the telecommunications industry has been less cyclical than it has been for the stock market as a whole, as measured by the S&P 500 US equity index. Shown, too, is that the telecommunications industry was less influenced by the latest economic crisis, namely in 2008 and 2011, and that, over the long term, telecoms provide better risk parameters for investors than do other sectors. As the owner of information infrastructure, the telecommunications sector will continue to play a very important role in the world economy. The telecommunications sector derives its stability from this position, thus confirming the hypothesis that telecommunications companies, due to their specific status in the economy, are less dependent on economic cycles and therefore more stable from the perspective of portfolio investors.

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STATE INTERVENTION IN CURRENT ECONOMY

Andrea Elena (BURDUF) MIERLARU[1]

[1] Bucharest University of Economic Studies, Doctorate Economy, Take Ionescu no 11, Bucharest e-mail: andreea_burduf@yahoo.com

ABSTRACT

Starting from the definition of protectionism, an economic policy of restraining trade between states through methods such as tariffs on imported goods, restrictive quotas, and a variety of other government regulations designed to allow, according to proponents fair competition between imports and goods and service produced domestically, I am compelled to find if the intervention of state is beneficial for economy. State is having the role of setting certain convergent common goals for the whole society and to set rules that removes free will in economic decisions, thus creating the premises for a regulated economic space, based on the transition from little rationale of firms to big rationale of national economy. Companies that have lost their ability to export their products in different countries suffer losses in the short term, but eventually found other outlets. Instead, consumers are deprived of freedom of choice, with the most affected.

Keywords: economic thinking, protectionism, national economy

JEL codes: D83

1 Introduction

As a definition the protectionism is a governmental policy aimed at shielding a fragile economy, or a weak or critical sector, from cheaper or better imports through imposition of high duty rates (tariff barriers), quotas, or inordinately stringent or time consuming inspection or quality regulations (non-tariff barriers). All countries practice protectionism in one form or another but, generally, without going to any extreme.

Historically, protectionism was associated with economic theories such as mercantilism and import substitution. During that time, Adam Smith famously warned against the "interested sophistry" of industry, seeking to gain advantage at the cost of the consumers [1]. By specializing in production instead of producing everything, each nation would profit from free trade.

Protectionism in its classic version during the continental blockade of England during the Napoleonic Wars belongs to the past [2].

It is important to distinguish between the case for free trade for oneself and the case for free trade for all. The former is an argument for free trade to improve one nation’s own welfare. Protectionists seem to always be one step ahead of free traders in creating new ways to protect against foreign competitors.

They believe that free trade helps workers in developing countries, even though they are not subject to the stringent health and labour standards of developed countries.

Protectionism is the policy of protecting domestic industries against foreign competition by means of tariffs, subsidies, import quotas, or other restrictions or handicaps placed on the imports of foreign competitors.

Protectionist policies have been implemented by many countries despite the fact that virtually all mainstream economists agree that the world economy generally benefits from free trade [3].

2 Applicability of protectionist measures in the current economy

Since the end of World War II, it has been the stated policy of most countries to eliminate protectionism through free trade policies enforced by international organizations.

Protectionism may be helpful to emergent industries in developing nations. It can also serve as a means of fostering self-sufficiency in defense industries. Import quotas offer another means of protectionism. These quotas set an absolute limit on the amount of certain goods that can be imported into a country and tend to be more effective than protective tariffs, which do not always dissuade consumers who are willing to pay a higher price for an imported good.
Throughout history wars and economic depressions have led to increases in protectionism, while peace and prosperity have tended to encourage free trade. The European monarchies favoured protectionist policies in the 17th and 18th centuries in an attempt to increase trade and build their domestic economies at the expense of other nations; these policies, now discredited, became known as mercantilism. Great Britain began to abandon its protective tariffs in the first half of the 19th century after it had achieved industrial preeminence in Europe [4].

Heads of the G20 meeting in London on 2 April 2009 pledged that will not repeat the historic mistakes of protectionism of previous eras.

Trade protectionism was an important point on the agenda of the G20 Summit taking place in Saint Petersburg on 5 and 6 September 2013.

There has been a sharp increase in the use of measures applied directly at the border, especially in the form of import duty hikes. Brazil, Argentina, Russia and Ukraine stand out for having applied the heaviest tariff increases.

Measures forcing the use of domestic goods and relocation of businesses have continued to spread, especially in government procurement markets. Brazil accounted for more than one-third of restrictions related to government procurement, followed by Argentina and India.

The EU's partners have also continued applying stimulus measures, in particular supporting exports. Some of them took form of comprehensive, long-term and highly competition-distorting policy packages.

Some countries continue to shield some of their domestic industries from foreign competition to the disadvantage of their consumers and other industry sectors. Brazil and Indonesia provide the most striking examples of this approach.

Today, in a period of post-acute crisis, world leaders agreed not to impose new restrictions and measures directed against boost their exports by various methods.

Protectionist measures appeared even within the EU, which in principle should not exist. France has banned the import of new models of Mercedes cars in Germany.

The official reason given is that the Germans were using other refrigerant for air conditioning in cars than allowed by the European Commission.

Dispute exists globally, such as patent war between Apple and Samsung, due to which the United States might prohibit sales of smartphones and tablets in South Korea, or the conflict

between China and the EU that could lead to disappearance of European markets cheap solar panels and Chinese stores Italian and French wines.

Governments in many developing countries try to protect their consumers, which finally are deprived of freedom of choice. Most industrialized governments have long held that laissez-faire capitalism creates social evils that harm its citizens. To protect those citizens, these governments have enacted laws that restrict what companies can and cannot do in pursuit of profit.

Today, in a period of post-acute crisis, world leaders agreed not to impose new restrictions and measures directed against boost their exports by various methods.
Global efforts to battle trade protectionism need to be reinforced to help shield the fragile economic recovery across the world.

Since 2012 the state of the world economy has continued to improve. Demand from advanced economies is on track to getting back to normal, although differences persist among the output performances of developed countries. Meanwhile, the expectation is that growth in the developing and emerging world will continue to be sustained.

Notably, the resilience of many emerging economies in developing Asia has been a crucial factor allowing them to grow even when global conditions were not favourable. Yet as international production processes rely heavily on the linkages between the production centres in advanced and developing economies through complex value chains, trade remains an important source of economic growth, not only for developed economies, which are still key drivers of global demand, but also for developing and emerging countries.

In this context, further impediments to trade, as we see them occurring, are bound to have negative consequences on global growth and to delay the overall recovery process.

3 Protectionism is still here

Protectionist measures appeared even within the EU, which in principle should not exist. France has banned the import of new models of Mercedes cars in Germany.

The official reason given is that the Germans were using other refrigerant for air conditioning in cars than allowed by the European Commission. Dispute exists globally, such as patent war between Apple and Samsung, due to which the United States might prohibit sales of smartphones and tablets in South Korea, or the conflict between China and the EU that could lead to disappearance of European markets cheap solar panels and Chinese stores Italian and French wines.

It seems that free-trade and protectionist tendencies are fairly evenly balanced among the great powers, with every nationalist impulse countered by a liberalising one.

This "one step forward, one step back" behaviour can be seen in the EU as well, beset as it is by the crisis in the Eurozone.

The recent French presidential election saw both the successful challenger, Francois Hollande, and the defeated incumbent, Nicolas Sarkozy, stepping up their protectionist rhetoric in an effort to woo the 80% of voters who are anti-globalisation.

However, as has often been stated beyond the country's borders, France is a big winner from globalisation, with French companies doing 14 times more business abroad than foreign firms do in France.

Other regions of the world, notably Latin America, are similarly blowing hot and cold in the same trade debate.

As the purchasing power of the Brazilian population has grown, the demand for imported products, specially from the US, has been growing as well. Also, as the country is growing, industries need inputs and end up importing too.

Added to that, there is also the matter of deindustrialization of Brazil due to the high tax burden and to the professional shortage, that increases the hiring costs.

The solution the current government has found was to create a protectionist plan that would enhance the competitiveness of the national industry under the slogan "innovate to compete". There are some measures which the government has adopted as a way of promoting the development of the national industry, such as:

Tax exemption for exports, meaning a regime that will refund a percentage of the taxes applied to exports in Brazil. Initially, the percentage is of 0,5%, but the president can rise this amount to 4%. The purpose of this regime is to exempt taxes that are charged throughout the production process of industrialized goods.

The summit of protectionism establish a margin of preference of 25% for national goods and services in public bidding. These margins will be established based on job and income generation, as well as the technological development and innovation taking place in the country.

Fighting against antidumping practices, meaning that the investigation of antidumping practices will be more intensive and the number of investigators working for the Ministério do Desenvolvimento, Indústria e Comércio Exterior will jump from 30 to 120. This initiative aims to restrain practices that try to bypass the commercial defence mechanism through a false origin declaration or under pricing of goods.

Encouraging digital bookkeeping, meaning the plan guarantees that the National Treasure will be responsible for making up for the revenue loss suffered by Previdência Social.
The program was strongly criticized by the labour union. According to them, the exemption of the 20% regarding labor benefits will bankrupt Previdência Social, as the National Treasure would not be able of handling the situation for much longer. According to those opposed to the plan, there is no guarantee that the National Treasure will be able of handling the loss Previdência Social would face and this has a great impact over those who rely on the services provided by this institution.

Specialists also claim that the program is nothing but the continuity of measures that had been adopted before and that are limited to microeconomics, putting aside macroeconomic changes, which are those related to interest rates, exchange rates and salaries.

The main concern is the increasing of public debts, as the main opinion about the National Treasure taking over the losses of Previdência Social is very sceptical. Also, it is important to have in mind that protectionist measures trigger a chain reaction that might as well configure a problem for the Brazilian exports. For a long time, there were substantial tariffs on banana imports from Latin America. Exporters had to pay €176 (£141) per tonne of bananas. But, in 2012, an agreement has seen these tariffs reduced [6].

Latin American banana producers are required to pay a duty of €176 (£141) a tonne on shipments to the EU but there is no surcharge on shipments from former European colonies in Africa and the Caribbean. This levy will now fall over the next seven years to €114 a tonne.
Bananas, the world's most traded fruit, are a vital export for Latin American nations and make up about 10pc of the exports of Ecuador, Costa Rica and Panama.

An agreement on tariff reduction was initially struck in December 2009 in Geneva, but a number of legal steps were required before a WTO agreement could be signed, including the introduction of EU legislation and the separate ratification of the deal by individual countries. Banana prices may fall by as much as 11pc after the European Union and 10 Latin American countries signed a historic agreement to end the "banana wars" that have rumbled on for more than 20 years.

India, too, is facing both ways on the issue. Recent comments by Indian politicians have echoed those of China in denouncing protectionist sentiment, particularly on the part of the US. But India is still reluctant to give foreign firms greater access to its economy, as shown by the political row over its much-delayed decision to open up the supermarket sector to global giants such as Wal-Mart, Tesco and Carrefour. Single-brand firms such as Starbucks and Ikea are already allowed to open stores in India, but only provided they buy 30% of their goods from domestic small industries.

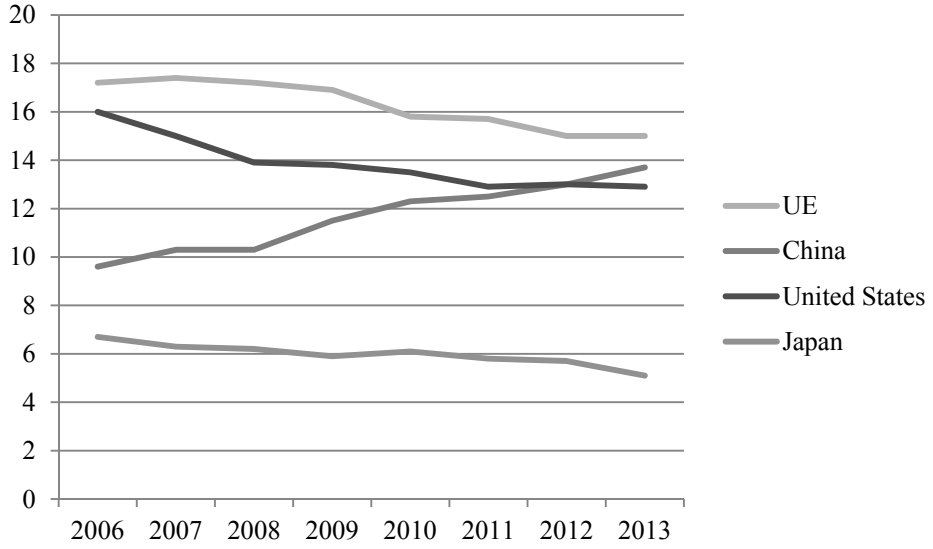
From the perspective of the UK, such restrictions are frustrating. The list of British companies that have passed into foreign ownership is endless, from Cadbury's to Jaguar Land Rover.
Worldwide, the percent of share trade for goods point out a uniform distribution, evidenced in the table below [5]:

Table 1 Share of world trade for goods %

Year	UE	China	United States	Japan
2006	17.2	9.6	16	6.7
2007	17.4	10.3	15	6.3
2008	17.2	10.3	13.9	6.2
2009	16.9	11.5	13.8	5.9
2010	15.8	12.3	13.5	6.1
2011	15.7	12.5	12.9	5.8
2012	15	13	13	5.7
2013	15	13.7	12.9	5.1

Source: Eurostat

Figure 1 Share of world trade for goods %



Source: Eurostat

In recent decades, average tariff rates have fallen, as we have come closer to free trade. However, there are still many protectionist measures, with tariffs on specific goods, such is EU

Common Agricultural Policy [7]. Despite reforms and some reduction in tariff rates, the EU still impose substantial tariff rates on many agricultural markets. The aim is to increase prices for domestic European farmers in order to increase their income.

The table below suggests that some agricultural products, beef and dairy, have very substantial tariff rates of over 75%. For example, there are 54 dairy products which have tariff rates of more than 75%.

Table 2 CAP statistics

Tariff	Bellow 20%	Above 20%, Bellow 50%	Above 50%, Bellow 75%	Above 75%
Meat and offal	127	50	22	34
Dairy products	33	44	44	54
Vegetables	109	7	2	4
Edible fruit and nuts	140	61	0	0
Cereals	19	23	7	6
Oilseeds	78	0	1	1
Sugar	30	6	2	9
Agricultural products	1569	352	134	149

Source: [7]

In addition EU farmers benefits from the domestic subsidies of the Common Agricultural Policy which help give an advantage in exports.

When tariff or non-tariff barriers block the flow of primary goods into Europe or the access of European companies to markets outside Europe, Europe's competitiveness suffers.

When anti-competitive practices distort or undermine resulting trade, Europe's competitiveness suffers.

Europe's market must be open to supplies of intermediary goods and raw materials for European producers of value-added products. Restricting this flow of goods raises costs for European companies, making them less competitive: the EU needs to import to export.
The EU has consistently removed these barriers to its own economy and now has one of the most open markets in the world.

Governments in many developing countries try to protect their consumers, which finally are deprived of freedom of choice. Most industrialized governments have long held that laissez-faire capitalism creates social evils that harm its citizens. To protect those citizens, these governments have enacted laws that restrict what companies can and cannot do in pursuit of profit.

4 Conclusions

The topic of state intervention is one that has been extensively debated by economists and policy-makers for a number of years. State intervention in the production process is very common in most developing countries. The justifications given by the state for this form of Intervention includes reasons which are based on a variety of market failures including imperfections in factor markets, the paucity of information and high risk aversion on part of the private entrepreneurs.

Public enterprises has been used as an instrument of state intervention by develop and developing countries alike. In many cases their intervention is a reaction of the market mechanism limitation, in case of weakness of private entrepreneurship.

Mainstream economists agree that protectionism is harmful in that its costs outweigh the benefits and that it impedes economic growth.

The current post-crisis economy needs protectionism and publicly giving the measure is nothing but diplomacy.

Countries understand the need for a more balanced national economy will provide help domestic producers. In this case need not be necessarily duty system may be used as technical standards, forcing thus all exporters to meet these standards. Even though many countries use long these techniques to protect the market against competitive imports, it seems not always manage it.

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EFFECTS OF THE GLOBAL CRISIS ON THE MACROECONOMIC INDICATORS – A PRINCIPAL COMPONENT APPROACH

Smaranda CIMPOERU[1]

[1] Bucharest University of Economic Studies, Faculty of Cybernetics, Statistics and Informatic Economics, Department of Statistics and Econometrics, Resita, nr. 17, Bucharest, Romania, e-mail: smarandacimpoeru@yahoo.com

ABSTRACT

The Great Financial Crisis that emerged in 2007 triggered a lot of theoretical and empirical research – what went wrong and why wasn't the crisis predicted. In the present paper we focus on the effects of the financial crisis on the worlds' economies. Our purpose is to summarize the large amount of information contained in the post-crisis data in order to show the impact of the financial crisis to a country's economy. As method used, we propose a Principal Component Analysis on a set of economies with the corresponding macroeconomic indicators. We find which indicators have the highest loading in the principal components The results are satisfactory, as the first two components retain 65% of the total variance in the data. Using the components constructed, we depict a graphical representation that we use for a comparative analysis of the global crisis' impact on the different economies evolution.

Keywords: financial crisis, principal component analysis, systemic risk

JEL codes: G01, C38, F37

1 Introduction

The global financial crisis which emerged in 2007 became quickly a subject of intensive debate among financial and economic scientists, as well as practitioners. The macroeconomic developments from the 2007-2010 financial crisis were so severe that could be considered as a "once-in-a-century" event, thus implying some limitation in what concerns the lessons that could be learned from these extreme fluctuations ([7]).

However, some macroeconomic model adjustments have been done. Considering the important role of the financial sector during the crisis, one would consider giving more weight to the financial variables in the economic forecasts. De Bondt ([5]) for instance found that the stock prices can be informative for the evolution of the GDP. Staff researchers from European Central Bank created a new monthly Area-Wide Leading Indicator (ALI) for the euro area, indicator that captures the particularities of the financial series. It also incorporates some survey-based confidence measures. An additional step to be done is assessing which financial frictions are important in the market and could lead to financial crisis. These frictions should also be included as a part of the macroeconomic models.

Another lesson learned from the 2007 financial crisis is the investigation of non-linear models as opposed to liner and stationary models. The relevance of non-linear effects can be investigated with models that distinguish between periods of crisis and high growth, known as regime-switching models. The advantage of these models is that they allow for divergent economic dynamics to be taken into account and they can use the information from the financial variables in order to identify the timing of the regime switching. However, one most draw

attention about the universality of these models, which could explain features in data that do not occur very frequently. If the special features do not appear in the forecast period, then their efficiency could be very low.

The objective of the present paper is to make an analysis of the post-crisis effects of the global crisis, from a point of view of the macroeconomic indicators. In section two of the paper we review the literature – what are the main lessons learned and global economic impact for the main episodes of financial crisis. In section 3, we present the data used in the case study (macroeconomic variables) and the preliminary results of the principal components analysis. Next, in section four, we highlight the most important results from the principal component analysis and propose a comparative approach based on the estimated score variables obtained for the economies included in the sample. Last section concludes the most important findings and contribution to the specialty literature.

2 Literature Review

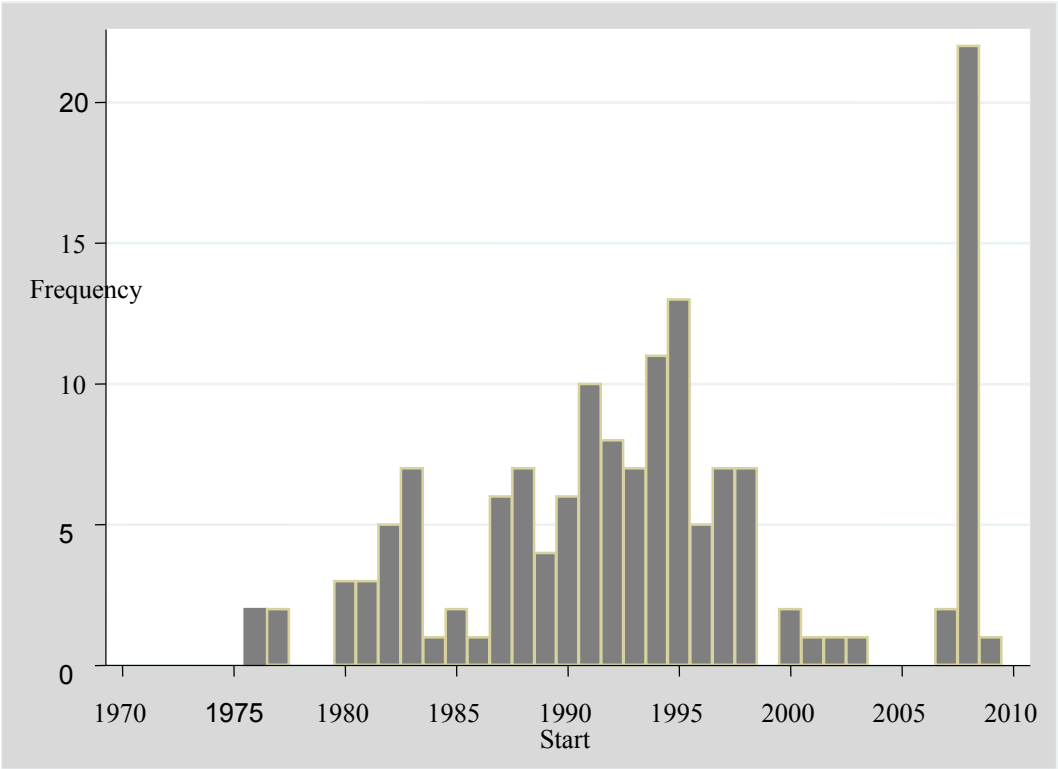
The first studies for the effects of financial crisis are based on the evidence found from the Great Crisis in 1930. In [2] we have a comparative analysis of the macroeconomics associated with the 1930 Crisis. He is among the first researchers to suggest the necessity of studying the economies in a comparative way and not only focus on the economy of the US or of the developed countries. Some important highlights from the Great Depression deal with the macroeconomic implications. First of all, the monetary contraction is an important cause of the Crisis and that monetary reflation is a key component in recovery. He models a panel of 24 countries, with a dummy variable to indicate the periods of banking crisis, as suggested in the historical sources. With the panel created, they intended to compare the US economy with countries that suffered from severe banking problems, but also with economies that remained stable during the Depression. In this way, they reached the conclusion that the differences in vulnerabilities across countries deal more with the institutional policy differences than macroeconomic conditions. They find that banking crises have economic and statistically significant effects on manufacturing production and employment. Moreover, they reduce real and nominal wages, have negative effects on competitiveness and exports, raise the real interest rates and reduce real share prices. The money multiplier and the M1 money stock are reduced by banking crisis. This finding is inconsistent with the Mundell-Fleming model for a small open economy, that is with all other conditions held constant, the money stock of a small country is determined by the domestic money demand, thus and declines in the money multiplies should be offset by endogenous inflows of gold reserves. The inconsistency with the model could be explained by the fact that banking crises raise the probability of exchange rate devaluation. However, the model is respected as banking crises have no effect on wholesale prices for the gold standard economies.

Apart from the macroeconomic implications of the Great Depression, Accominotti ([1]) explores the main characteristics of international crisis propagation in the 1930s. In his study, he tries to find why some countries were affected by the financial shocks and other not. The main findings deal with the fact that the global stress was related to the liquidity shortage on international capital markets. This culminated with the high capital flow reversal in 1931. The author argues that “the geography of financial troubles at the beginning of the 1930s closely matched the distribution of countries between creditors and debtors. The crisis first propagated to the large importers of capital. With the huge liquidation of international investments, countries that were previously relying on foreign borrowing to finance their current account deficits fell victim of speculative attacks and their debt sustainability was negatively impacted.” ([1]). In the meantime, the capital flows were redirected to the largest creditors of the time

(Switzerland, Netherlands, France) in the early 1930s. This created that context of the global financial crisis in 1931. The analysis is very suggestive considering the recent global financial crisis, as it shows the vulnerability of capital importers when facing financial crisis.

After the Second World War and until the beginning of the 1970s there was a period of relatively calm and economic growth through the world. In Figure 1 we have a graph depicting the number of banking crisis from 1970 until the present day. The number of banking crises are taken from the studies of Reinhart and Rogoff ([8], [9]), and also based on the findings of: Bordo et al. ([3]), Caprio et al. ([4]). We took into account the number of banking crises since independence or 1800, which started in each year in the period 1970-2010. It can be easily seen from the graph the crisis episodes mentioned: the Nordic countries and transition economies crisis, East-Asian Crisis, recent Global Financial Crisis.

Figure 1 Number of banking crisis in the period 1970 – 2010



Source: Author's calculations; Reinhart and Rogoff ([8]).

Lessons learned on how to deal with financial crisis include the benefits of rapid crisis management, as well as an insufficient involvement and advice from the IMF on how to deal with the financial crisis. The Nordic crises show that even rich-market economies in Europe with a developed legal system and with democratic traditions may experience financial crises. The lessons learned from these crises are similar with those we learned from the emerging economies, as the background of bursting the crisis as very similar. More precisely, the main triggers for the Nordic financial crisis were the pegged exchange rate, the financial liberalization and the credit expansion, triggers that can also be considered for emerging or medium-income economies.

The importance of consumer confidence in the recession period is another lesson learned. Confidence indicators have been seen by macroeconomists as providing some short-term value added information and for some practitioners they do not bring more information than that already contained in other variables. However, the recent depression was also a crisis of confidence and the confidence indicators were found to provide good crisis forecast

information. As highlighted by Dees and Soares Brinca ([6]), confidence indicators can have some predictive power for explaining the consumption expenditure in the Euro area. They find that the confidence indicators matter especially in periods of increased uncertainty (for example, periods of financial crisis or geopolitical tensions), in which cases they play a significant role. Another important lesson, which is whatsoever linked with the confidence, is the expert judgement that has to be included in the financial crisis prediction models. Since the recent crisis, expert judgment was included in order to take account of other quantitative or qualitative elements that could not be included in these models. The new challenge is to improve the nature of judgement so to ensure that it is based on some rigorous foundations and not simply involve subjective opinions.

3 Data and Methodology

As methodology used, we propose a principal component analysis in order to find the components that express the maximum information from the macroeconomic indicators, in what concerns financial crisis situations.

3.1 Data description and summary statistics

First of all, we define the database. We use the Gross Domestic Product (GDP) recorded in 2013 from the World Bank data and calculate the share of the World GDP for each of the over 200 economies available. We select a sample of the most important economies as share of GDP. Considering also data availability for the chosen macroeconomic variables and after excluding the outliers (for example, data for Belarus was considered as extreme values), we have a sample of 49 economies[1], whose GDP totalizes 61% of the world GDP.

The next step is to define the macroeconomic variables that will be included in the principal component analysis. For this, we take into account the effects of the Global Financial Crisis on the economy. We base our choice on the specialty literature and on data availability. We establish a set of six indicators, whose description and period considered are described in Table 1. In parenthesis, under each indicator's name is mentioned the variable name used in Stata. All calculations are performed using Stata software.

Table 1 Macroeconomic Variables Description

Indicator	Indicator Description	Year
GDP growth (annual %) (GDPg)	Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2005 U.S. dollars.	Average 2008-2012
Bank nonperforming loans to total gross loans (%) (NPL)	Bank nonperforming loans to total gross loans are the value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of specific loan-loss provisions).	2013

[1] Countries included in the sample: United Arab Emirates, Australia, Austria, Belgium, Bosnia and Herzegovina, Brazil, Chile, Colombia, Czech Republic, Denmark, Egypt, Spain, Estonia, France, Greece, Croatia, Hungary, India, Ireland, Iceland, Israel, Italy, Japan, South Korea, Kuwait, Lithuania, Luxemburg, Latvia, Morocco, Moldova, Malaysia, Netherlands, Oman, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russia Federation, Singapore, Serbia, Slovenia, Sweden, Thailand, Turkey, Ukraine, United States, South Africa.

Cash surplus/deficit (% of GDP) (CashDeficit)	Cash surplus or deficit is revenue (including grants) minus expense, minus net acquisition of nonfinancial assets.	2012
Inflation, consumer prices (annual %) (Inflation)	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services.	2011
Money and quasi money growth (annual %) (M2g)	Average annual growth rate in money and quasi money. This definition is frequently called M2. The change in the money supply is measured as the difference in end-of-year totals relative to the level of M2 in the preceding year.	2012
Variation in total Stocks traded (as % of GDP) (D_Stocks)	Stocks traded refers to the total value of shares traded during the period. This indicator complements the market capitalization ratio by showing whether market size is matched by trading.	Variation in 2009 vs 2008.

Source: Data World Bank

We then inspect the descriptive statistics for the set of six variables (Table 2). We find that the highest variation is recorded for the variation in total value traded of stocks (D_Stocks). This is explained by the fact that in the sample are included mature and less mature stock markets. We also find high variances for NPL rate (with a maximum of 31.3% registered for Greece) and for Money growth.

In the data analysis phase we compute the correlation matrix between the six indicators. The results are presented in Figure 2. All correlation coefficients are higher than 0.15 , offering us evidence to apply the Principal Component Analysis to the underlying data. We note the three strongest correlations (>0.5): negative correlation, as expected between GDP growth and NPL rate (-0,54), positive correlation between Money Growth and GDP growth (0,63) and also positive correlation, sustained by the economic theory , between Money Growth and Inflation (0,57).

Table 2 Descriptive statistics of Macroeconomic Variables

Variable	Mean	Std. Dev	Minimum	Maximum
GDPg	1.427469	2.486394	-4.475	6.801
NPL	7.530612	7.146771	0.2	31.3
M2g	5.202102	6.527785	-7.607	20.832
CashDeficit	-2.415674	5.651127	-10.635	27.869
Inflation	4.344959	2.5256	-0.283	11.917
D_Stocks	-12.10629	24.75854	-110.718	29.068

Source: Author's calculations.

Figure 2 Correlation matrix for the six macroeconomic variables

	GDPg	NPL	M2g	CashDeficit	D_Stocks	Inflation
GDPg	1.0000					
NPL	-0.5455	1.0000				
M2g	0.6332	-0.2466	1.0000			
CashDeficit	0.1998	-0.3131	0.2070	1.0000		
D_Stocks	0.2329	0.1730	0.2731	0.1815	1.0000	
Inflation	0.2690	0.1685	0.5709	-0.0096	0.2121	1.0000

Source: Author's calculations.

3.2 Principal component analysis results

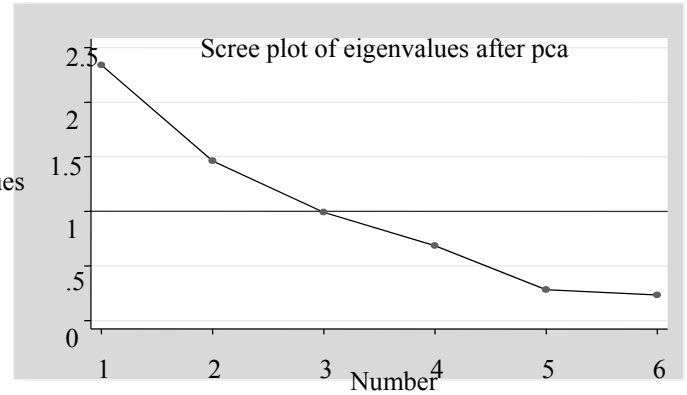
We include in the principal component analysis all six macroeconomic variables. The results of the analysis are presented in Figure 3. We have the eigenvalues for the six components and the proportion of the total variance explained by each component. We can see from the results in Figure 3 that the first two components explain 63% of the total variance, while the first three explain about 80% of the variance. As a rule of thumb, we should keep in the analysis, the components with the associated eigenvalues above 1 – that is the first two components. In the screeplot (Figure 4), we observe a significant break after the first three components (the eigenvalue for the third component is 0,99 – almost 1).

Figure 3 Principal component analysis – results

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	2.34063	.879503	0.3901	0.3901
Comp2	1.46112	.467845	0.2435	0.6336
Comp3	.993278	.306447	0.1655	0.7992
Comp4	.686831	.40402	0.1145	0.9136
Comp5	.282811	.0474803	0.0471	0.9608
Comp6	.235331	.	0.0392	1.0000

Source: Author's calculations.

Figure 4 Screeplot for the eigenvalues



Source: Author's calculations.

4 Results and Discussion

In Figure 5, we have the results for the components loadings corresponding to the three principal components. Component one loads mostly on GDP growth and on M2 growth, so this component could be associated with the economic evolution. Component two loads on Non-performing loans and Inflation, but also on Variation in Stocks, meaning that this component could be associated with the banking sector fragility.

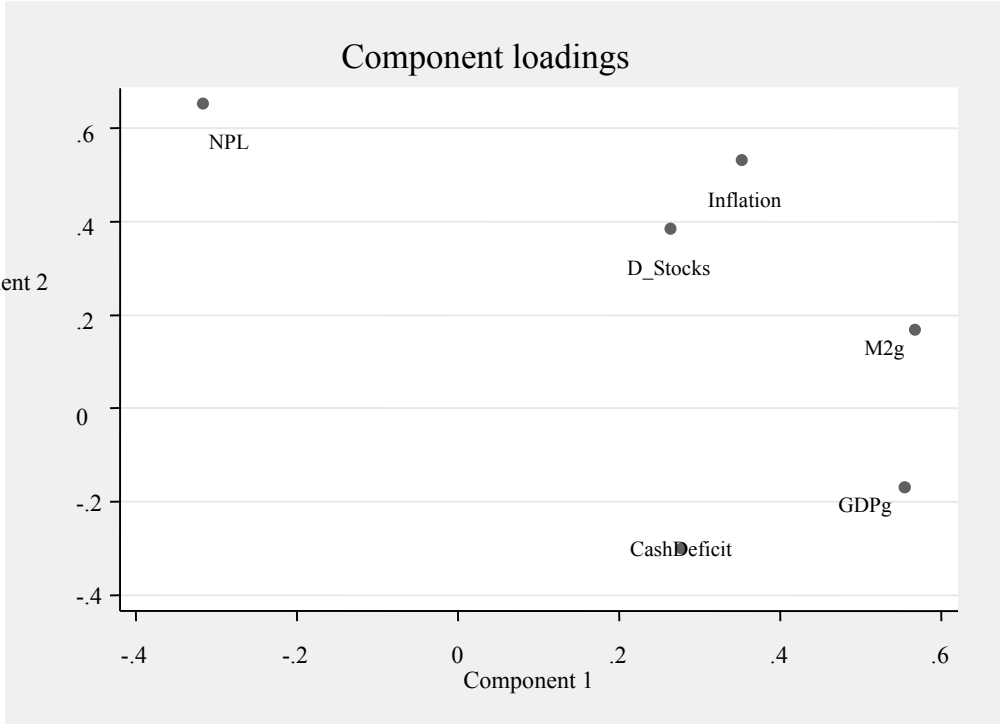
In Figure 6, we have the graphical representation of the first two components, which shows mainly the same that we highlighted above – high loads for GDP and M2 growth, and main load in NPL for the second component.

Figure 5 Component Loadings (first three principal components)

Variable	Comp1	Comp2	Comp3	Unexplained
GDPg	0.5544	-0.1690	-0.1748	.2084
NPL	-0.3162	0.6520	0.1566	.1204
M2g	0.5669	0.1674	-0.1856	.1726
CashDeficit	0.2773	-0.3007	0.6556	.2611
Inflation	0.3528	0.5297	-0.2780	.222
D_Stocks	0.2644	0.3838	0.6352	.2205

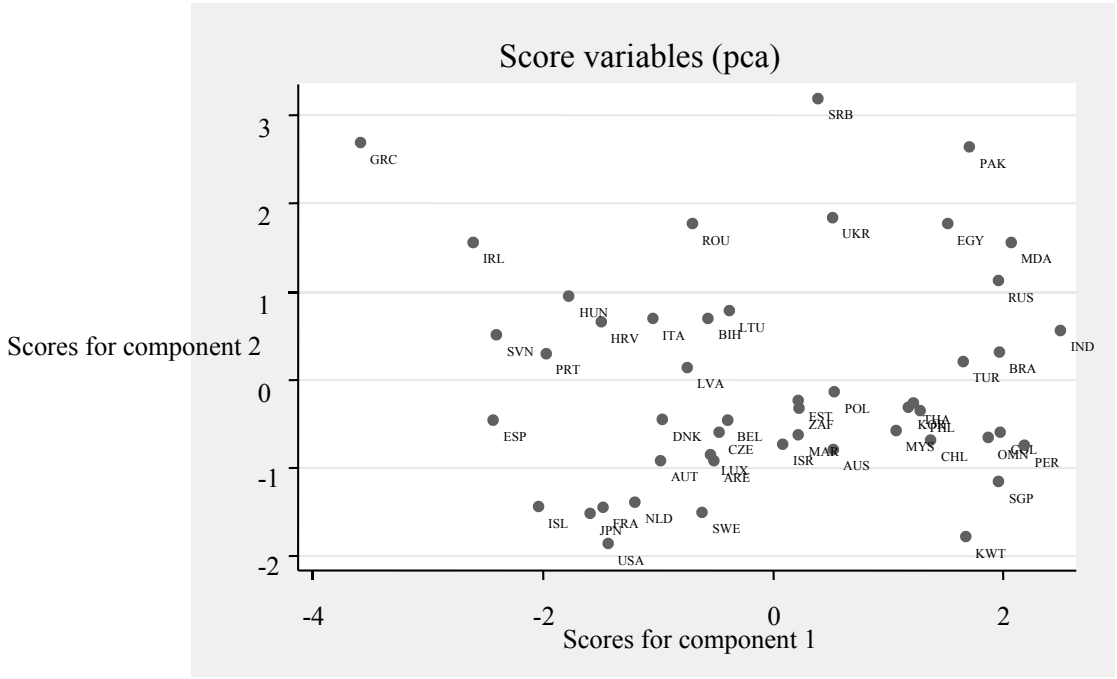
Source: Author's calculations.

Figure 6 Component Loadings – graphical representation of the first two principal components



In Figure 7, we find the variables scores for the first two components. It is very suggestive, the way that Greece, Ireland, Slovenia, Spain, Portugal, Hungary and Romania are grouped in the left side of the graph, meaning that these are the countries with the lowest values for the score, thus the most affected by the financial crisis. On the opposite side, we have Brasil, Egypt, Singapore and Indonesia, with very high scores and economies less affected by the crisis.

Figure 7 Score Components (first two principal components)



5 Conclusions

In the present paper, we focus on the effects of the global financial crisis on the economies in the world. As methodology used, we propose a principal component analysis on a set of six macroeconomic indicators. The results of estimation show that a large amount of the variation in the data (63%) is explained by the first two principal components. We analyse the results from the component loading and find that the two components could be associated with the economic risk and with the risk from financial markets. We obtain a classification of the economies included in the sample, based on the degree in which they were affected by the crisis.

Acknowledgments

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THE CONCEPT OF GREEN GROWTH – A NEW APPROACH TO DEFINITION OF SOCIAL DEVELOPMENT

Magdaléna ČERVEŇOVÁ[1]

[1] University of Economics, Faculty of National Economy, Department of Finance, Dolnozemská cesta 1,852 35 Bratislava, Slovak Republic, email: magdalena.cervenova@gmail.com

ABSTRACT

Environment, long term sustainable development and the concept of green growth comprise a great number of challenges and problems of current age. The idea of the green growth gathers support in many countries, represents support of the economic growth and development and at the same time takes into consideration the environmental factor of life in society. The green growth is based on the already existing initiatives that are focused on sustainable development but also make allowance for development of new "green" options and transition to a greener economy.

Keywords: creation and protection of environment, innovations, long term sustainable development, the concept of green growth.

JEL codes: F 64, H 23, Q 56.

1 Introduction

The concept of green growth represents an integrated strategy of economic growth in post crisis period, which takes into consideration environmental aspects. The timing of its implementation is crucial, because countries due to the crisis need to find new sources of growth and must also take into account the scarcity of natural resources and the impacts of environmental pollution. It is necessary to take into consideration the new opportunities which link both the economic growth and environmental aspects in the life of society. Innovation in green technology could be a means to solve the economic and environmental challenges, to increase the competitiveness of businesses and also the country's competitiveness.

2 Green growth strategy, its problems, limitations, and also a great need for further development of the society

Green growth strategy differs from other strategies in understanding the environment in social and economic system. Environment in this strategy is not understood only as a prerequisite for socio-economic development, but we understand it as integral part of the socio-economic development.

Environmental green growth tools are identical to existing instruments for the protection and creation of environment. The difference is in their applications. While the existing environmental instruments are applied mainly "separately", the green growth strategy emphasizes that the environmental used "in symbiosis". The application of environmental tool does not only affect the specific environmental sphere for which it is intended, but goes beyond. The use of environmental instruments has lead to the achievement of the global effect.

These tools are based on two policy areas:

- The first policy area refers to economic growth and preservation of natural capital and includes basic fiscal and regulation measures. It is a program of economic policy extended to protection and creation of environment and complemented also by measures promoting innovations. Schemes respecting friendly and effective use of natural capital should also be rewarded.
- The second area concerns the policies and aims to stimulate the efficient use of natural resources and to increase prices for environmental pollution, we here include a combination of price and other policy instruments.

It is believed that the most effective tool for green growth strategy could be made from externalities (social determination of price development and environmental protection).. Determination of price development and protection of the environment is a challenging task for researchers from different areas of social life (economists, physicists, chemists, scientists, etc.).

Changes in tax systems and environmental tax reforms are essential for achieving "green" economy.

In tax system reforms have an important role plays change of the tax burden from "good things" to "bad things" and thus influence economic variables (gross domestic product, etc.), as well as variables of creation and protection of the environment (waste generation, emissions, etc.). Under the "good things" are considered labor and capital, i.e. productive factors. Under the "bad things" can be understood environmental pollution. [1]

Non-market instruments can be used in cases when it is not possible to use market instruments:

- market competition does not exist,
- from the economic or environmental view it is favourable to enable or disable completion of a particular activity,
- enforcement and control of market mechanisms is very difficult.

In some cases, it is preferable to use an appropriate regulatory policy, actively promote environmental technologies and also the approaches that are based on volunteering.

Voluntary tools for green growth:

- help to improve business management (environmental accounting and auditing),
- inform consumers about energy efficiency and ecological production,
- means of competitiveness among businesses,
- highlight the fact that the company does something beyond their obligations.

3 Implementation of green growth strategy into economies

Path to green growth economy is dependent on political and institutional environment. Implementation options are different in developed and developing countries and also in countries with different political and economic environment.

The fundamental pillar of the green growth strategy is good economic policy, allowing more efficient use of available resources to minimize the environmental burdens of the economy. For efficient use and management of resources, which is a fundamental objective of economic policy, numerous fiscal and regulatory measures should be adopted. It is also necessary to review the composition and efficiency of public spending, to increase revenues by charging environmental pollution. "The concept of green growth represents a new perspective of society and the economy, provided the application itself is a nation-wide acceptance. To achieve it, it is necessary to involve all stakeholders in the process of the measurements, the subsequent implementation and monitoring. Achieving results is possible by changing the behavior of

individual economic entities and by new investments. The concept of green growth is not a short process, but is a long-term agenda, it is therefore necessary to start as soon as possible". [2]

Green growth strategy is focused on mutually supporting aspects of economic and environmental policy. Into account is taken the value of natural capital as a factor of production and its role in promoting growth. It focuses on cost-effective ways of reducing environmental boundaries at global, regional as well as local level. An irreplaceable role in the strategy of green growth plays innovation. From current production technologies and the positive consumer behavior positive results can be expected only to a certain threshold, until a condition under which the depletion of natural capital produces negative consequences for overall growth. Green growth strategy draws attention to the fact that concentration on gross domestic product as an indicator of economic progress overlooks the importance of natural resources to wealth, health and also to prosperity. It takes into account the indicators of progress, evaluates the quality and structure of the growth.

Problems of green growth are of interdepartmental character and it is necessary to coordinate the various departments in addressing the issue. It is important that each of the departments contributes to the implementation of green growth into practice. The green growth promotes conditions for innovation, investment and competitiveness, which support the creation of new sources of economic growth in accordance with ecosystems.

Green growth strategy proposes a political program that is feasible and flexible enough to adapt to conditions in individual countries.

On the UN conference on Sustainable Development Rio + 20 held on 20-22 June 2012 in Rio de Janeiro in Brazil was adopted a document called "The Future We Want". The document reflects the current period, characterized by the ongoing financial and economic crisis, the subsequent implementation of the reform agenda and fiscal consolidation seeking the recovery of economies and public finances.

Rio + 20 conference highlighted the need to strengthen relations between the environmental, economic and social agenda, and also pointed to the need to change their perception as three independent pillars for the sake of a more coherent and comprehensive approach.

It drew attention to two priority areas:

- the first area comprises the problems of green economy in the context of long-term sustainable development and poverty eradication,
- the second area represents the institutional framework for sustainable development.

In the context of the green economy a consensus not to create barriers to trade was adopted. The need to strengthen the management of the global green economy was highlighted by UNEP (United Nations Environment Program). [5]

The results of the Rio + 20 were concisely summarized by the General Director of the European Environment Agency Prof. Jacqueline McGlade, who said that "the government for the first time recognized the importance of the green economy, as well as the need for knowledge and information. This is good news, but this is just the beginning - this knowledge must be reflected in the actual improvement of the environment". [6]

In implementing the principles and the green growth strategy into economies it is necessary to pursue the proposed procedures and their effectiveness to achieve the goals. OECD in cooperation with all Member States drew up a set of indicators to monitor the progress on green growth. Policies, economic instruments and their impact on securing the environmental and

resource productivity to preserve natural capital and to examine the environmental dimensions of quality of life are monitored. [4]

Slovakia is a small landlocked country in Central Europe. It is a major source but also recipients of transboundary air pollution. It is located at the intersection of important ecosystems rich in biodiversity, abound in waterways causing floods. Slovakia is ranked among the OECD member countries that developed their national indicators of green growth. These indicators were elaborated by Slovak Environmental Agency in collaboration with interdepartmental group of experts with representation from all relevant sectors of the SR economy.

The current set of green growth indicators contains 33 individual indicators applicable to Slovakia. Indicators are processed on the basis of the proposed OECD indicators, four of which are national indicators, describing the voluntary instruments of environmental policy. The file consists of four groups of indicators for monitoring and benchmarking.

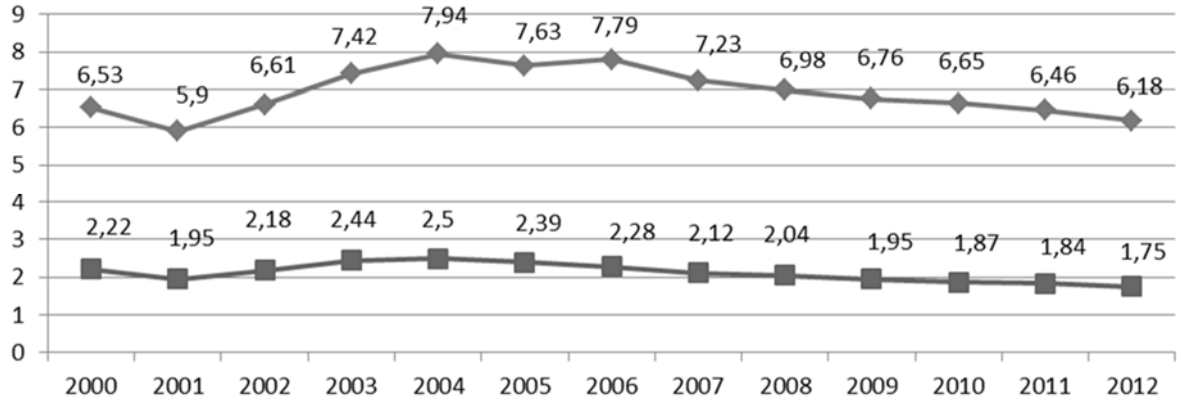
1. Environmental and resource productivity, involves the necessity of efficient use of natural wealth, CO2 productivity and energy productivity is monitored, i.e. energy demandingness in sectors of the economy, the share of renewable energy sources (RES) in gross inland energy consumption, the contribution of electricity produced from RES and resource productivity, i.e. material productivity, waste generation without municipal waste and the rate of its recovery, the amount of generated municipal waste, balance of nitrogen and phosphorus and water production.
2. Base of natural wealth, reflecting the fact that the reducing natural resource base presents a risk for further growth and puts emphasis on prudent use of natural resources. Traces Renewable and non-renewable resources, biodiversity and ecosystem (endangered species of flora and fauna, changes in land use) are monitored.
3. Environmental quality of life captures the direct effects of the environment on people's lives, the harmful effects of pollution on the health of the population. The approach to environmental services (e.g. connection to public sewer system and public water supply pipeline) is monitored.
4. Economic instruments and policy responses are considered important for the effectiveness of policy measures to promote green growth. Traces Prices, taxes (share of environmental taxes in total tax revenues, the share of environmental taxes in GDP, prices for electricity and natural gas for households, prices for the distribution and supply of drinking water), innovation, i.e. expenditure on research and development in selected sectors of the economy, voluntary instruments for environmental policy (environmental management system -ISO 14001 / EMS /), the proportion of green public procurement according to the number of contracts and their financial value, the number of products which have been awarded the EU ECO-LABEL, etc.) are monitored. [3]

Environmental indicators represent a comprehensive source of information on the development and protection of the environment. They are an important means for evaluation of the condition and development of the environment and the efficiency to meet the set environmental objectives, and also towards sustainable development. These are measurable variables that provide information on development and trends in phenomena and processes in quantitative and qualitative terms.

The Manifesto of the Government for the years 2012-2016, the Slovak government defined as a key task the introduction of long-term trends for the economic, social, environmental and scientific and technological development of Slovakia and improvement of the quality of life in society.

How positive will the concept of green growth be for the SR? For illustration see chart No. 1, which shows the share of environmental taxes in total tax revenue and in GDP.

Chart 1 Environmental taxes in SR (in %) and their share in total tax revenues and GDP



Source: [7]

In the period 2001-2004, we observe an increase in environmental taxes in total tax revenues, as well as an increasing share of environmental taxes in GDP. After 2005 the share of environmental taxes in total tax revenues, as well as its share in GDP is falling.

To ensure the green growth, it is desirable to ensure that the share of environmental taxes in total tax and in GDP is increasing, consistent with ensuring the efficient use of these tax revenues. Measures are needed also in other areas and it is necessary to create a comprehensive system of network infrastructure. This is particularly the connection with future technology in areas such as power industry, water management, transport and communications networks. In most countries, large investments are needed, therefore, it is therefore necessary to use both public and private financial resources. Necessary resources can be obtained through public and private partnership, a combination of fees and taxes, support of development, reform of regulatory restrictions and signals of stable debt policy in order to support significant investment. It is also important to define an action framework and a uniform set of criteria for economic and environmental policies. While ensuring this compliance it is important to safeguard coordination between ministries, lower levels of public administration and etc. On the basis of coordination it is possible to determine the right mix of policy measures. Attention has to be drawn to building institutional capacity, which will be in some cases a pre-requisite to integration of green growth into the key economic strategies.

4 Conclusion

In the time of overcoming the economic crisis, the period when most states are facing high unemployment and indebtedness, the importance of emerging "green" options and the transition to a greener economy is increasing. The issue of green growth adopted by international organizations needs to be addressed at the national level, but also comprehensively at all levels. In pursuing green growth the purpose is to enhance the integrity of the economic, social as well as environmental conditions for the development of the Slovak economy, with a focus on promoting its stability.

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[7] EUROSTAT

K PROBLEMATIKE POISŤOVNÍCTVA A POISTENIA MEDZINÁRODNÝCH RIZÍK AKO SÚČASTI NEŽIVOTNÝCH RIZÍK V SLOVENSKEJ REPUBLIKE

Barbora DRUGDOVÁ[1]

[1] University of Economics, Faculty of National Economy, Department of Insurance, Dolnozemská cesta 1, 852 35 Bratislava, Slovak Republic, e-mail: barbora.drugdova@euba.sk

ABSTRACT

The article is devoted to insurance and to insurance of international risks as a part of non-life risks in the Slovak Republic. In the European Union, as well as in developed economies, the economic relations are expanding beyond the borders of the countries. Economic relations which start between two or more countries bring forth several new risks, but also bring forth possibilities to anticipate, eliminate and remove them. The insurance companies associated in the Slovak Insurance Companies' Association deal with insuring international risks on the Slovak insurance market. By 31 December 2013, there were 21 commercial insurance companies on the Slovak insurance market, of which 21 were associated in the Slovak Insurance Companies' Association. Commercial insurers offer a wide variety of insurance products. Amongst them are also products aimed at insuring international risks, as a part of non-life risks.

Keywords: risk, international risk, commercial insurance, non-life insurance, insurance companies

JEL codes: G02, G22, G23

1 Úvod

Poisťovníctvo prechádza v Slovenskej republike, ale i vo svete dynamickým vývojom a preto všetci účastníci poistného trhu, komerčné poisťovne, fyzické aj právnické osoby, štát a zahraničie sa musia stále prispôsobovať, meniacej sa legislatíve a meniacim sa požiadavkám doby, poznačenej globalizáciou, integráciou a dlhovou krízou.

V súvislosti so vstupom do Európskej únie boli prijaté viaceré legislatívne zmeny v oblasti poisťovníctva, ktoré sa dotýkali aj poistenia medzinárodných rizík, ako súčasti neživotných rizík.

Od 1.1.2008 vstúpil v platnosť zákon č. 8/2008 Z. z. o poisťovníctve, v ktorom okrem iného sa preberajú právne akty Európskych spoločenstiev a Európskej únie. Uvedený zákon nevyhovuje súčasným podmienkam, pretože od 1.1.2009 Slovenská republika vstúpila do eurozóny. Pripravuje sa nový zákon o poisťovníctve.

2 Charakteristika medzinárodných rizík, ako súčasti neživotných rizík

Vo vyspelých ekonomikách prichádza zvyčajne k rozširovaniu ekonomických vzťahov aj mimo rámec príslušných štátov. Ekonomické vzťahy, ktoré vznikajú medzi dvoma alebo viacerými štátmi prinášajú veľa nových rizík. Mnohé sa prenášajú z jedného štátu do druhého, ako napr. cenové výkyvy, inflačný vývoj a podobne. Na druhej strane niektoré zabraňujú a eliminujú mnohé ťažkosti iného druhu, napr. dovoz nedostatkových surovín a materiálov, napomáhajú

rozvoju výroby pri možnostiach rozšírenia exportu a podobne. [1] Problematika medzinárodných rizík, ako súčasti neživotných rizík je veľmi rozsiahla a komplexná z hľadiska: diverzifikácie prípadov podľa, toho či ide o export, reexport alebo import, a taktiež množstva aspektov: komerčných, právnych, technických, bankovo-finančných, ako aj širších politických a ekonomických súvislostí. V odbornej literatúre sa najčastejšie rozlišujú tri skupiny medzinárodných rizík, ktorým budeme v príspevku venovať väčšiu pozornosť.

2.1 Klasifikácia medzinárodných rizík. ako súčasti neživotných rizík

V odbornej literatúre českej, nemeckej, anglosaskej sa stretneme s rôznym členením medzinárodných rizík. Uvedieme členenie s ktorým sa stretneme v slovenskej odbornej literatúre. Medzinárodné riziká, ako súčasť neživotných rizík môžeme členiť nasledovne: riziká komerčné alebo obchodné (finančné) riziká, politicko-hospodárske riziká, osobitné druhy rizík. [2]

2.1.1 Komerčné riziká

[11] Komerčné riziká tvoria systém väčších i menších rizík, týkajúcich sa hlavne medzinárodných obchodno-finančných transferov. Komerčné riziká pôsobia vo vonkajších vzťahoch intenzívnejšie ako vo vnútornej ekonomike krajín, najmä z nasledujúcich dôvodov:

a/ Rozdielnosť mentalít, ktorá je spojená s ťažšou komunikatívnosťou, ale aj s ťažkosťami pri hľadaní nových trhov.

b/ Jazykové bariéry, ktoré prinášajú nebezpečenstvo nedorozumení, prípadne chybných interpretácií pri uzavieraní zmlúv, čo môže mať negatívne následky.

c/ Rozdielnosť právnych systémov, kde zmluvy môžu byť interpretované podľa práva a obchodných zvyklostí exportéra, ako i importéra. Rozhodnutia daných súdov sa dajú ťažko presadiť v zahraničí a môžu byť drahšie ako samotný predmet sporu.

d/ Väčšia vzdialenosť medzi zmluvnými stranami, čo má za následok menšie vzájomné poznanie, horší prehľad na cudzom trhu a tiež zvýšené riziko transportu.

2.1.1.1 Charakteristika komerčných rizík

[12] Komerčné riziká v zmluvných vzťahoch vyplývajú z nebezpečia, že zahraničný partner nedodrží uzavretú zmluvu buď preto, že k tomu nie je ochotný, alebo preto, že nie je schopný kontrakt dodržať. Neschopnosť partnera splniť záväzky vyplývajúce zo zmluvy má spravidla príčinu v jeho zmenenom ekonomickom postavení alebo v nereálnom odhade jeho ekonomických možností.

Intenzita dopadu komerčných rizík je všeobecne na jednotlivé zahraničné operácie daná dvoma faktormi: Prvým faktorom je spoľahlivosť partnera – z tohoto hľadiska treba posudzovať právne postavenie partnera, jeho majetkovú situáciu, komerčnú zdatnosť, technicko-ekonomické predpoklady splnenia záväzku a pod. Druhým faktorom je stupeň právneho zaistenia daného záväzkového vzťahu – ide spravidla o právnu dokonalosť kontraktu, jeho podmienky, právo, podľa ktorého je právny vzťah posudzovaný, charakter sankcií za nesplnenie kontraktu. Komerčné riziká sú druhmi rizík, ktoré môžu dosahované výsledky ovplyvniť hlavne v negatívnom smere. Sú jedným z mála druhov rizík, u ktorých možno aplikovať ochranu cestou ich minimalizácie. Tieto riziká sú ovplyvnené kvalitou práce subjektov vo sfére zahranično-ekonomických vzťahov, ich schopnosťou odhadovať riziká a voliť vhodné cesty ich obmedzenia. Komerčné riziká môžeme rozdeliť na: trhové riziko, riziko neprevzatia tovaru, riziko z nezaplatenia, tovarové riziko, transportné riziko – dopravné riziko. [4]

2.1.2 Charakteristika politicko-hospodárskych rizík

Politické riziká vyplývajú z celkovej politickej, ekonomickej a finančnej situácie krajiny, do ktorej smerujú exporty. S pojmom politické riziko sa vo všeobecnosti spája bezprostredné ohrozenie zisku, v extrémnych prípadoch aj ohrozenie hospodárskej existencie zahraničných spoločností, alebo dokonca i medzinárodných podnikov. Dôvody vzniku politických rizík vyplývajú zo zmien v politickom okolí podniku. Konkretizujú sa opatreniami prijatými štátom a tieto znamenajú pre exportéra riziko neratifikácie, alebo zrušenia kontraktu, embargo vývozu, neprevedenie devízového transferu, konfiškáciu materiálov a výrobkov a pod. [6]

Z najširšieho hľadiska toto riziko vyplýva z nepriateľských akcií, ako sú vojna, revolúcie, štrajky, nepokoje, občianske vojny a pod.

Politicko-hospodárske riziká v medzinárodnom obchode už dávno nemožno považovať za vedľajšie. Nemožno ich celkovo podceniť. Je nevyhnutné začleniť ich do kalkulácie obchodu. Obrovská zadlženosť rozvojového sveta, rozsiahla platobná neschopnosť, medzinárodná dlžnícka kríza, nebezpečná a výbušná situácia v mnohých regiónoch sveta, všetky tieto faktory len umocňujú a zvýrazňujú nevyhnutnosť znižovania politicko-hospodárskych rizík. [3]

Politicko-hospodárske riziká členíme na tieto druhy, ide o:

a/ výmenné riziko – peniaze, ktoré už importér vyplatil svojej banke, nemožno (dočasne) v dôsledku štátnych opatrení importujúcej krajiny a v dôsledku nedostatku devíz vymeniť za žiadnu cudziu menu.

b/ moratórium – zaplatenie a transfer dlhovej čiastky exportérovi štát nepovolí v čase splatnosti pohľadávky, ale povolí len čiastočné zaplatenie dlhu, prípadne nariadi odklad platby.

c/ transferové riziko – peniaze vyplatené importérom v banke nemožno (čiastočne alebo úplne) previesť do zahraničia, pretože importujúca krajina z hospodársko-politických príčin nechce taký transfer povoliť. Riziko transferu obsahuje nebezpečenstvo úplného alebo čiastočného obmedzenia transferu zisku, vecných statkov, know-how, licenčných poplatkov, platieb za služby, ako aj kapitálu. Riziko transferu sa v súčasnosti stalo jedným z najväčších rizík pre medzinárodné finančné inštitúcie a komerčné banky. Medzi transferové riziká sa spravidla zaraďuje: riziko platobnej neschopnosti krajiny a riziko obchodných prekážok. [4]

2.1.3 Charakteristika osobitných druhov rizík

Osobitné druhy rizík tvoria zvláštnu skupinu. Do tejto skupiny patria tieto druhy rizík: kurzové riziko, riziko pohybu úrokových sadzieb, inflačné riziko, právne riziko, riziká pri zahraničných investíciách, riziká prírodných a technických katastrof, riziká teroristického útoku a špecifické riziká. Do skupiny špecifických rizík možno zahrnúť špecifické riziká istoty, bezpečnosti, pod ktoré patria: udalosti ohrozujúce zdravie, slobodu a život pracovníkov medzinárodných spoločností a inštitúcií, ako aj rodinných príslušníkov a obavy z budúcnosti. Denná realita nás presvedčuje o narastajúcej sa „schopnosti“ človeka alebo skupiny nacionalisticky, ideologicky, nábožensky, sektársky, teroristicky či inak zameraných ľudí, ktorý ohrozujú nielen majetok, ale najmä zdravie a život nevinných ľudí. Rastúci počet teroristických útokov na prelome tisícročia nemôže nechať „s kľudom spať“ všetkých mierumilovných ľudí na tejto zemi. (Uvedieme napr. teroristický útok v USA v roku 2001, alebo v Španielsku v roku 2004 a ďalšie teroristické útoky či už v USA, alebo vo Veľkej Británii). [3]

3 Poistenie medzinárodných rizík, ako súčasť neživotných rizík na slovenskom poistnom trhu

Poisťovaním medzinárodných rizík, ako súčasti neživotných rizík sa na slovenskom poistnom trhu zaoberajú komerčné poisťovne. Každá komerčná poisťovňa sa zúčastňuje na poistnom trhu rôznou ponukou poistných produktov a má záujem pokryť čo najväčší priestor (poistné pole). Slovenský poistný trh je od 1. 5. 2004 súčasťou európskeho poistného trhu. Poistný trh vytváraný európskymi štátmi možno označiť za najväčší a najrozvinutejší poistný trh sveta.[1] [9] Poistný trh je súčasťou finančného trhu. Na finančných trhoch vznikajú nové druhy finančných nástrojov, ktoré zneprehľadňujú finančné toky a spôsobujú vznik nových rizík. [6] Poistný trh je miestom, na ktorom sa stretáva ponuka a dopyt po poistnej ochrane. Predmetom obchodu na poistnom trhu je poistenie a zaistenie. Dohľad nad poisťovníctvom a poistným trhom, ako súčasťou finančného trhu vykonáva Národná banka Slovenska.[2] [8] Na poistný trh pôsobí veľa interných a externých faktorov. Jeho rozsah, efektívnosť, význam z hľadiska národohospodárskeho je možno charakterizovať viacerými ukazovateľmi. Medzi najčastejšie ukazovatele s ktorými sa stretávame v odbornej literatúre patria: poistenosť, počet komerčných poisťovní, technické poistné, podiel životného a neživotného poistenia na HDP, počet zamestnancov komerčných poisťovní (počet interných a externých zamestnancov), ponuka poistných produktov a iné ukazovatele. Medzi najdôležitejší ukazovateľ poistného trhu patrí technické poistné.

Komerčné poisťovne sú asociované v Slovenskej asociácii poisťovní. [6] K 31.12 2013 pôsobilo na slovenskom poistnom trhu 21 komerčných poisťovní, z ktorých 21 bolo združených v Slovenskej asociácií poisťovní, ktoré sa podieľali uvedenými ukazovateľmi na technickom poistnom /viď. tabuľka 1. Podiel členov Slovenskej asociácie poisťovní na technickom poistnom k 31.12.2013 v tis. euro/ celkom a na technickom poistnom na neživotnom poistení. [7]

Tabuľka 1 Podiel členov Slovenskej asociácie poisťovní na technickom poistnom k 31.12.2013 /v tis. euro/ celkom a na neživotnom poistení

	Technické poistné k 31.12.2013 v tis. euro v komerčných poisťovniach		
Por. číslo	Komerčné poisťovne	Technické poistné celkom	Technické poistné v neživotnom poistení
1	AEGON Životná poisťovňa, a.s.	38 145	0
2	Allianz - Slovenská poisťovňa, a. s.	572 267	326 939
3	AXA životní poisťovna a.s., pobočka poisťovne z iného členského štátu	62 535	3 392
4	AXA poisťovňa a.s., pobočka poisťovne z iného členského štátu	11 562	11 562

[1] Poistný trh v štátoch Európskej únii predstavuje asi 30 % z celkového svetového poistného trhu za rok 2013.

[2] Národná banka Slovenska vykonáva dohľad nad poisťovňami v skupine a zaisťovňami v skupine a doplňujúci dohľad. Predmetom dohľadu je predovšetkým: dodržiavanie legislatívnych noriem pre poisťovníctvo a ostatných všeobecne záväzných právnych predpisov a dodržiavanie podmienok určených v získaných povoleniach od Národnej banky Slovenska.

5	BASLER Lebensversicherung - AG, pobočka poisťovne z iného členského štátu	5 830	0
6	BASLER Sachversicherung - AG, pobočka poisťovne z iného členského štátu	3 926	3 926
7	ČSOB Poisťovňa, a. s.	81 164	27 053
8	D.A.S. Rechtsschutz AG, pobočka poisťovne z iného členského štátu	2 611	2 611
9	ERGO životná poisťovňa, a.s.	19 569	1 896
10	Generali Slovensko poisťovňa, a. s.	174 346	94 265
11	Groupama poisťovňa.a.s.	4 822	3 548
12	ING Životná poisťovňa, a. s.	78 889	0
13	KOMUNÁLNA poisťovňa, a.s.VIG	171 263	60 499
14	KOOPERATIVA poisťovňa, a. s., VIG	509 078	250 576
15	MetLife Amslico poisťovňa a. s.	126 058	7 803
16	Poisťovňa Cardif Slovakia, a.s.	9 656	14 058
17	Poisťovňa Poštovej banky, a. s.	69 285	162
18	Poisťovňa Slovenskej sporiteľne, a. s. VIG	41 524	0
19	UNION poisťovňa, a. s.	108 139	31 080
20	UNIQA poisťovňa, a. s.	6 330	75 114
21	Wüstenrot poisťovňa, a. s..	59 825	22 007
22	Slovenská kancelária poisťovateľov	11	11
	Celkom	**2 169 678**	**937 501**

Prameň: Vlastné spracovanie podľa [7]

Treba uviesť, že prvenstvo na slovenskom poistnom trhu v roku 2013 v celkovom technickom poistnom mala poisťovňa Allianz - Slovenská poisťovňa, a. s., 26,38% podiel a tiež aj v oblasti neživotného poistenia, kde dosiahla 19,19% podiel. Na druhom mieste sa umiestila poisťovňa KOOPERATÍVA, poisťovňa, a.s. - 23,46% podiel na celkovom technickom poistnom a v oblasti neživotného poistenia 20,98% podiel a tretie miesto má Generali Poisťovňa, a.s., na celkovom technickom 8,04% podiel a v oblasti neživotného poistenia 6,5% podiel. Poistné produkty zamerané na poisťovanie medzinárodných rizík sú zahrnuté v neživotnom poistení. Poisťovňa Allianz – Slovenská poisťovňa, a.s. ponúka najširšiu ponuku poistných produktov zameraných na poisťovanie medzinárodných rizík.

4 Výsledky a diskusia

Ako bolo vyššie uvedené komerčné poisťovne ponúkajú širokú paletu poistných produktov. Medzi nimi sú aj poistné produkty, ktoré sú zamerané na poisťovanie medzinárodných rizík. Medzi najdôležitejšie poistné produkty medzinárodných rizík, ktoré ponúkajú komerčné poisťovne na poistnom trhu sú: dopravné poistenie (poistenie zahraničnej prepravy zásielok), poistenie investičných celkov (stavebno-montážne poistenie), poistenie výstav a veľtrhov,

poistenie zodpovednosti za výrobok, poistenie medzinárodného cestného dopravcu, havarijné poistenie motorových vozidiel do zahraničia, poistenie z prevádzky lietadla a poistenie špeciálnych rizík. Medzi špeciálne riziká zahŕňame najmä: poistenie zariadení atómového priemyslu a pridružených rizík, poistenie exportných úverov, poistenie kaucie, poistenie včasného dodania tovaru zahraničnému príjemcovi, poistenie ďalšieho dopravného. Ďalšiu skupinu tvoria: poistenie cestovného ruchu, poistenie liečebných nákladov v cudzine a pod. V súvislosti s poistením medzinárodných rizík, ako súčasti neživotných rizík treba povedať, že komerčné poisťovne neponúkajú niektoré poistné produkty, ktoré sú zaužívané v krajinách Európskej únie a v celom vyspelom svete napr. v USA, Japonsku a pod. Ide predovšetkým o poistné produkty v oblasti komerčných rizík, (napr. bankovo – finančných rizík) a taktiež v oblasti osobitných druhov rizík (napr. rizík prírodných a technických katastrof, rizík teroristických útokov a pod./

5 Záver

Záverom danej problematiky možno povedať, že poistenie medzinárodných rizík**,** ako súčasti neživotných rizík má dôležitý význam. Vyplýva to z hľadiska ekonomického a politického. Problematika medzinárodných rizík, ako súčasti neživotných rizík je veľmi rozsiahla a komplexná z hľadiska diverzifikácie prípadov podľa toho či ide o export, reexport alebo import a množstva aspektov: komerčných, právnych, technických, bankovo-finančných ako aj širších politických a ekonomických súvislostí. Na slovenskom poistnom trhu v súvislosti s poistením medzinárodných rizík, ako súčasti neživotných rizík v procese globalizácie a integrácie možno v budúcnosti predpokladať, že komerčné poisťovne, ktoré na ňom pôsobia budú ponúkať také poistné produkty zamerané na poistenie medzinárodných rizík, ktoré ponúkajú komerčné poisťovne v ostatných členských krajinách Európskej únie a v celom vyspelom svete. Ide najmä o poistné produkty v oblasti komerčných rizík, najmä bankovo – finančných rizík.

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PRINCÍP ZDANENIA PODĽA PLATOBNEJ SCHOPNOSTI VERSUS ZDANENIE PODĽA ÚŽITKU V MEDZINÁRODNOM PROSTREDÍ

Martin GEŠKO[1]

[1] Ekonomická univerzita v Bratislave, Národohospodárska fakulta, Katedra financií, Dolnozemská cesta 1, 852 35 Bratislava, Slovenská republika, e-mail: martin.gesko@euba.sk

ABSTRAKT

Súčasné uplatňovanie zdanenia podľa rezidencie a zdanenia pri zdroji v medzinárodnom prostredí vyvoláva významné narušenia medzinárodnej neutrality kapitálu. Zdanenie podľa rezidencie vychádza z princípu zdanenia podľa platobnej schopnosti, zatiaľ čo princíp zdanenia pri zdroji má teoretický základ v zdanení podľa úžitku. Cieľom našej práce je prostredníctvom analýzy súčasného poznania a následného zhodnotenia východísk teórie určiť opodstatnenosť využitia uvedených princípov ako východísk pre zdanenie príjmov v medzinárodnom prostredí.

Kľúčové slová: daň, zdanenie pri zdroji, princíp platobnej schopnosti, princíp úžitku

JEL codes: H20, H21, H24

1 Úvod

Súčasné uplatňovanie zdanenia podľa rezidencie a zdanenia pri zdroji v medzinárodnom prostredí vyvoláva významné narušenia medzinárodnej neutrality kapitálu. Zdanenie podľa rezidencie vychádza z princípu zdanenia podľa platobnej schopnosti, zatiaľ čo princíp zdanenia pri zdroji má teoretický základ v zdanení podľa úžitku. Toto je z nášho pohľadu spôsobené tým, že tieto koncepcie sú založené na praktickom predpoklade, ktorým je akceptácia využitie obidvoch prístupov k zdaneniu. Uvedené koncepcie jednoducho reflektujú zdanenie príjmu na základe obidvoch prístupov bez ohľadu na ich opodstatnenosť. Ako základ takéhoto chápania môžeme považovať prácu P. Musgraveovej, ktorá vo svojej koncepcii medzinárodnej rovnosti zdanenia zdôvodnila aplikáciu oboch princípov na základe potreby „spravodlivo“ rozdeliť daňový výnos medzi zúčastnené krajiny [1].

V záujme dôkladného poznania problematiky sme sa preto zaoberali teoretickým zdôvodnením týchto prístupov a skúmali teoretickú opodstatnenosť ich uplatňovania v praxi. Pokúsili sme sa tiež identifikovať praktické dôvody, ktoré viedli k ich súčasnej aplikácii. Východiskovou hypotézou tejto časti nášho skúmania je, že aplikácia jedného z uvedených prístupov k zdaneniu príjmu nemá primerané teoretické opodstatnenie. Podľa nášho názoru jeden z prístupov k zdaneniu pri aplikácii v medzinárodnom prostredí narúša základné princípy všeobecného zdanenia príjmov.

2 Prehľad súčasného poznania

Základom daňovej teórie je zodpovedanie otázok: kto a ako má platiť daň. Otázka „kto“ sa týka určenia okruhu osôb, ktorí sú na základe určitého kritéria „kvalifikovaní“ na to, aby prispievali konkrétnemu verejnému sektoru. A otázka „ako“ sa týka spôsobu rozdelenia daňového bremena medzi daňovníkov, ako aj konkrétneho určenia daňovej povinnosti z konkrétnej daňovej základne. V rámci našej komparácie budeme uvažovať o dvoch najviac využívaných prístupoch

k určeniu okruhu osôb „kvalifikovaných“ na zdanenie v danom štáte, ktorými sú zdanenie podľa rezidencie a zdanenie podľa zdroja príjmu (teritoriálny prístup).

Zdaňovanie podľa rezidencie v zmysle princípu platobnej schopnosti

Základným ukazovateľom daňovej príslušnosti v histórii bola štátna príslušnosť. Napríklad v Prusku sa za osoby podliehajúce dani z príjmov v 19. storočí považovali len pruskí občania. Prístup založený na štátnej príslušnosti však sám osebe nemohol dostatočne zachytiť rastúcu mobilitu občanov a ich ekonomickú interdependenciu [8]. Pri skúmaní prístupu k vymedzeniu daňovníka podľa rezidencie je podľa nášho názoru potrebné vychádzať zo základnej definície štátu. Štát je v súčasnom ponímaní najvyššia forma organizácie určitej skupiny ľudí, spoločnosti, ktorí žijú na určitom vymedzenom území [2]. Základom je jednoznačne väzba medzi štátnou organizáciou-verejným sektorom-vládou a obyvateľmi štátu, ktorí sa podieľajú na jeho politickom, ekonomickom a všeobecne spoločenskom živote. Dôležité je z ekonomického pohľadu aj teritoriálne vymedzenie, resp. určitá teritoriálna, priama väzba medzi daňovníkom-rezidentom a verejným sektorom, tzn. že v súčasnom ponímaní je dôležité kde, na území ktorého štátu, človek trvalo žije, kde rozvíja svoje rodinné, sociálne a ekonomické aktivity. Ten štát má potom právo vyžadovať od tohto jedinca príspevok na svoje fungovanie. Dôležité je, že existuje priamy vzťah medzi daňovníkom a zdaňujúcou autoritou. Úžitok z poskytovania základných verejných statkov, resp. strasť spojená s ich neposkytnutím, môže pociťovať len osoba trvalo žijúca na danom území. Preto považujeme za určujúcu pre určenie okruhu osôb povinných podieľať sa na nákladoch verejného sektora fyzickú príslušnosť konkrétnej osoby, tzn. kde sa prevažne zdržuje, kde má svoje osobné, rodinné a ekonomické väzby. Môžeme teda povedať, že prispievať na chod verejného sektora v tej-ktorej krajine by mali tie osoby - daňovníci, ktoré sa fyzicky zdržujú na jeho území a ktoré majú k danej krajine blízke osobné a hospodárske väzby. Takýto prístup vymedzenia rezidencie, ktorý by sme mohli nazvať fyzická príslušnosť (*physicall allegiance*), je v medzinárodnej praxi pomerne dobre reflektovaný v pravidlách určovania daňovej rezidencie v Modelovej zmluve OECD, národných legislatívach a podobne. Výnimkou sú krajiny preferujúce politickú príslušnosť (*political allegiance*) ako ukazovateľ kvalifikovanosti osoby na platenie dane (napr. USA).

Zdaňovanie pri zdroji príjmu podľa princípu úžitku

Druhým prístupom k určeniu okruhu osôb povinných platiť daň je teritoriálny prístup, ktorý predpokladá zdanenie pri zdroji príjmu. V medzinárodnom prostredí sa v teórii spája predovšetkým s princípom zdanenia podľa úžitku z verejných výdavkov. Je založený na predpoklade, že daňovníci by mali platiť za každý statok poskytovaný vládou, ktorý spotrebovali. Ako uvádza Gliksberg [3], zdanenie podľa teritoriálneho princípu neberie do úvahy identitu osoby ktorá vykazuje príjem, teda neberie do úvahy či je domácim alebo zahraničným rezidentom, občan tuzemska alebo iného štátu alebo domáca či zahraničná spoločnosť. Platiť daň by teda mali všetky osoby, ktoré majú ekonomický úžitok z verejného sektora danej krajiny. Zástancovia tohto prístupu sa vo svojej argumentácii odvolávajú napríklad na prácu anglického filozofa Thomasa Hobbesa (1588-1679). Hobbes sa vo svojom diele Leviathan (1651) vyjadruje aj k potrebe zabezpečiť okrem rovnosti ľudí pred zákonom aj rovnosť pri platení daní. Táto rovnosť, podľa jeho slov *„nezávisí od veľkosti bohatstva ale od veľkosti dlhu, ktorý každý človek dlhuje verejnému sektoru za jeho ochranu“* [13]. Pri súčasnej aplikácii princípu úžitku v medzinárodnom kontexte sa štát „zdroja“ príjmu považuje za oprávnený zdaniť príjem zahraničného daňovníka, pretože jeho vznik a realizácia bola možná len vďaka právnej istote a službám poskytnutým týmto štátom. Viacerí autori, ako napríklad Vogel, von Schanz, Skaar a iní založili svoje tvrdenia o prevalencii princípu zdanenia pri zdroji

práve na princípe zdanenia podľa úžitku. Klaus Vogel sa vo svojej práci odvoláva na názor M. Graetza, ktorého argumentáciu cituje doslovne [14]: *„spravodlivosť (tzn. rovnosť) v medzinárodnom zdanení príjmov znamená, že každý národ má právo zdaniť príjem vytvorený na jeho území.... Požiadavka krajín zdroja na zdanenie príjmu, ktorý bol vytvorený na ich území, je analogická s dlhodobo známou požiadavkou suverenity národa nad prírodnými zdrojmi na jeho území. ...na uvedenom princípe je tiež založený prístup, podľa ktorého by cudzinci, ktorých aktivity dosiahnu určitú minimálnu hranicu, by mali prispievať na náklady spojené so službami poskytovanými hostiteľskou krajinou.... Služby, ktoré poskytuje hostiteľská krajina (krajina zdroja) môžu podstatnou mierou prispieť ku schopnosti oboch rezidenta aj cudzinca vyprodukovať príjem. Zdanenie tohto príjmu je jednou z ciest ako kompenzovať krajine zdroja náklady, ktoré mala na poskytnuté služby.*“ Podobne Peggy Musgrave chápe daňový výnos krajiny zdroja ako odmenu za prenajatie výrobných prostriedkov cudzím osobám, tzn. taktiež využíva terminológiu úžitkového prístupu [1]. Aj nemecký teoretik Georg von Schanz [18] založil svoju teóriu na princípe úžitku. Podľa jeho názoru má právo na zdanenie ako krajina rezidencie, tak krajina zdroja [10]. Krajina zdroja však poskytuje väčší podiel služieb ako krajina rezidencie. Schanz pri argumentácii vychádzal z princípu zdanenia podľa úžitku s tým, že, podľa jeho názoru, rezidencia nie je dostatočným kritériom pre určenie daňovej povinnosti a príslušnosti tak, ako ním nie je ani fyzická prítomnosť na určitom teritóriu, pretože tieto môžu viesť k zdaneniu osôb ktoré nemajú žiadny alebo len obmedzený úžitok z aktivít zdaňujúceho štátu. Podľa jeho názoru v situácii, keď určitá osoba má ekonomickú väzbu ku krajine rezidencie, ako aj ku krajine zdroja prostredníctvom ekonomických aktivít, táto posledne menovaná väzba je silnejšia – princíp ekonomickej príslušnosti (*economic allegiance*) [20]. Obdobný názor vyjadruje aj McLure, podľa ktorého *„krajina, odkiaľ príjem pochádza, musí byť odškodnená za náklady spojené s poskytnutými verejnými službami“* [10]. Podobné názory môžeme nájsť aj v práci Thomasa S. Adamsa (od ktorého odvádzal svoju argumentáciu aj M. Graetz), ktorý tvrdí, že *„veľká časť nákladov verejného sektora je spojiteľná s nákladmi na zabezpečenie udržateľného podnikateľského prostredia“* [10]. McLure však na druhej strane pripúšťa, že pre oprávnenosť zdanenia pri zdroji je pravdepodobne nutná fyzická prítomnosť zdaňovanej osoby. V zmysle tohto prístupu sa osoby povinné prispievať na úhradu nákladov verejného sektora určujú na základe predpokladaného úžitku bez ohľadu na ich fyzickú príslušnosť. Právo zdaniť má verejný sektor v krajine, odkiaľ je príjem vyplácaný, a teda sa má za to, že v tejto krajine bol príjem „vytvorený“. Zaujímavý pohľad na zdanenie pri zdroji ponúka alternatíva, podľa ktorej by zdanenie príjmov plynúcich do zahraničia pri zdroji bolo dôsledkom aplikácie merkantilistických názorov, podľa ktorých je pre krajinu dôležité udržať za každú cenu bohatstvo v krajine. Tento „ochranný“ prístup sa uplatňoval vo viacerých krajinách v podobe „cla“ či inej dávky pri vývoze zlata a striebra, ktoré slúžili ako platobný prostriedok pri nákupe zahraničného tovaru. Bližšie o tom hovorí napríklad aj Adam Smith v diele Pojednanie o pôvode a podstate bohatstva národov (1776) v časti IV.1. v ktorej popisuje merkantilistický pohľad na bohatstvo krajiny [16].

3 Porovnanie a zhodnotenie prístupov k zdaneniu

Ak budeme považovať otázku určenia okruhu osôb, ktoré majú mať povinnosť platiť daň (tzn. prispievať na daný verejný sektor) za zodpovedanú, nasledujúcou otázkou je otázka rozdelenia daňového bremena medzi daňovníkov. Pri určení podielu daňovníka na nákladoch verejného sektora sa historicky vychádza z dvoch základných princípov rozdelenia daňového bremena medzi členov určitej spoločnosti: *princípu úžitku z verejných výdavkov (benefit principle)* a *princípu schopnosti platiť daň (ability-to-pay principle)*. My sme však zámerne princíp úžitku spomenuli už pri problematike určovania okruhu daňovníkov, pretože máme za to, že v medzinárodnom prostredí je tento princíp používaný na rozdelenie daňového bremena

nesprávne. Základným problémom je „neschopnosť“ určiť podľa tohto princípu podiel daňovníka na nákladoch verejného sektora. Verejný sektor poskytuje svojim rezidentom na danom území určitú sumu čistých verejných statkov, medzi ktoré patrí predovšetkým armáda, polícia, súdnictvo, základná infraštruktúra a podobne. Z ekonomickej podstaty týchto statkov vyplýva, že nie je možné úžitok z nich plynúci adekvátne rozdeliť medzi rezidentov. Sú poskytované nerozdeliteľne a poskytujú priamy úžitok svojim užívateľom-rezidentom. V ekonomickej teórii sa objavili pokusy o exaktnejšie stanovenie podielu oboch krajín na zdanení [15]. Z toho potom vyplývajú problémy s určením primeranej výšky zdanenia pri zdroji. Medzi krajinami neexistuje jednotný prístup pri určení spôsobu a hlavne výšky zdanenia pri zdroji. Napríklad von Schanz navrhoval, aby si krajina zdroja ponechala ¾ daňového výnosu a krajine rezidencie by prináležala zvyšná 1/4 výnosu. Problém ale je, že ak by sme aj chceli dôsledne aplikovať princíp úžitku, museli by sme pri zdroji zdaniť len zisk z danej transakcie, nie celú sumu protihodnoty, ako je to v súčasných systémoch. Zdanenie celej sumy pri zdroji môže mať až konfiškačný efekt a predstavuje výraznú distorziu v medzinárodnej alokácii kapitálu. Samozrejme, pre zdaňujúci štát je technicky nemožné primerane kvantifikovať podiel zisku z celej vyplácanej sumy. Princíp zdanenia podľa úžitku nedokáže postihnúť a správne alokovať náklady na všetky služby verejného sektora, ktoré obyvatelia štátu od neho požadujú, a preto nemôže slúžiť ako základ pre všeobecné zdanenie príjmov [11].

Jediným kritériom, ktorý je podľa nášho názoru použiteľný pre rozdelenie daňového bremena, je princíp zdanenia podľa platobnej schopnosti. Tento princíp vychádza z chápania vzťahu medzi občanom a štátom na základe teórie spoločenskej zmluvy (*social contract*). Ako prvý ho teoreticky vymedzil vo svojej práci J.S. Mill. Pri jeho aplikácii vychádzame z toho, že daňovníci danej krajiny akoby splnomocňujú verejný sektor na poskytovanie určitej sumy statkov, prijímajú úžitky spojené s existenciou verejného sektora a poskytovaním verejných statkov a je potrebné, aby prispeli podľa svojich možností na náklady spojené s ich poskytnutím. V súlade s uvedeným princípom potom budú jednotliví daňovníci prispievať podľa svojich možností. Prístup je založený na predpoklade rovnosti medzi spotrebou súkromných a verejných statkov. Podobné chápanie vzťahu medzi štátom a občanom môžeme nájsť aj v diele A. Smitha (1776). V časti V.2.25 O daniach píše: *„Subjekty každého štátu musia prispievať vláde (verejnému sektoru) podľa svojich schopností, čo znamená, priamo úmerne príjmu, ktorý užívajú pod ochranou štátu.“* [16] Smithov prístup sa často interpretuje ako akýsi prechod medzi oboma princípmi. Podľa nášho názoru však takéto interpretácie sú dôsledkom nie správneho chápania uvedených princípov. Časť definície *„príjmu, ktorý užívajú pod ochranou štátu“* je podľa nášho názoru previazaný na *„subjekty štátu“*, tzn. ide o vymedzenie okruhu osôb, ktoré existujú, *„užívajú“,* pod ochranou daného verejného sektora. Táto časť má podľa nášho názoru vymedziť okruh kvalifikovaných osôb - daňovníkov, a ďalšia časť, *„podľa svojich schopností, tzn. priamo úmerne príjmu“* má za cieľ určiť spôsob rozdelenia daňového bremena. V tejto súvislosti je zaujímavé, že podobne formulovaný princíp rozdelenia daňového bremena sa objavil už oveľa skôr v niektorých normách stredovekého mestského práva [21]. V princípe sa vychádza z predpokladu, ktorý sme už popísali v časti týkajúcej sa zdanenia podľa rezidencie, že verejný sektor poskytuje verejné statky pre konkrétne ľudské spoločenstvo, pričom náklady spojené s poskytovaním týchto statkov by si malo toto spoločenstvo rozdeliť medzi jednotlivcov podľa ich možností.

Samozrejme, často spomínaným problémom je problém exaktného určenia „schopnosti“ daňovníka prispievať. V tejto súvislosti považujeme za potrebné spomenúť, že schopnosť daňovníka znášať daňové bremeno je podľa nášho názoru v súčasnosti merateľná výlučne peňažnou kapacitou daňovníka, tzn. jeho existujúcou alebo potenciálne dosiahnuteľnou peňažnou zásobou. Verejný sektor hospodári peňažne a aj vzťahy medzi súkromným a verejným sektorom sú peňažné, preto bude meradlom schopnosti daňovníkov prispieť ich

peňažná kapacita, tzn. peňažné prostriedky, ktoré majú alebo môžu mať k dispozícii. Ostatné zložky ekonomickej kapacity daňovníka, tzn. ostatné možnosti prispievať verejnému sektoru, boli z rôznych spoločensko-technických príčin v minulosti opustené. Považujeme za potrebné spomenúť aj to, že nesúhlasíme s prístupom niektorých ekonómov zaoberajúcich sa optimálnym zdanením [6], ktorí pod schopnosť (*ability*) znášať daň zahŕňajú aj rozličné charakteristiky osoby, ako sú napríklad fyzická a duševná kapacita, predpokladaná dĺžka života, úroveň vzdelania, zdravie a podobne [7]. Máme teda za to, že príjem je „len" jedným z ukazovateľov peňažnej kapacity daňovníka a samotná jeho existencia ešte nezakladá nárok na zdanenie. Zdaniť príjem je prípustné len vtedy, ak je tento príjem ukazovateľom peňažnej kapacity osoby kvalifikovanej na zdanenie – teda daňovníka. To znamená, že primárnou úlohou pre verejný sektor je v prvom rade primerané určenie okruhu osôb povinných platiť daň (daňovníkov) a až následne prichádza do úvahy otázka zisťovania ich peňažnej kapacity. Ako uvádza Goode, *„tvrdenie, že daň z príjmov fyzických osôb je najspravodlivejšia z daní vychádza z presvedčenia, že táto daň sa najviac zhoduje s princípom platobnej schopnosti. Čistý príjem je ukazovateľom kapacity osoby využívať ekonomické zdroje a zdá sa byť dobrým ukazovateľom schopnosti osoby prispievať verejnému sektoru"* [4]. V minulosti sa prirodzene vyvinuli viaceré ukazovatele peňažnej kapacity, tzv. daňové základne. Ide predovšetkým o majetok, akt kúpy (označované nepresne ako spotreba) a dôchodok. Daňové základne, teda aj peňažný príjem, predstavujú všeobecne akceptované ukazovatele peňažnej kapacity, a teda schopnosti daňovníka znášať daňové bremeno, ukazovatele jeho ekonomickej kapacity prispieť na potreby verejného sektora. Verejný sektor sa snaží postihnúť každú situáciu, v ktorej daňovník nejakým spôsobom preukazuje, že disponuje nejakou ekonomickou, či lepšie povedané peňažnou kapacitou. Preto zdanenie ktorejkoľvek z daňových základní využívaných v súčasnosti v konečnom dôsledku vždy dopadá na jeho peňažnú kapacitu. Existencia a veľkosť peňažnej kapacity daňovníka sa zisťuje tak, aby to bolo čo najlepšie technicky zvládnuteľné a zároveň politicky najmenej „nákladné".[1] Dane sa teda vyberajú tam, kde je najlepšie zistiteľná existencia peňažnej kapacity. Za nedostatočnú považujeme tiež spomínanú argumentáciu odvolávajúcu sa na myšlienky T. Hobbesa (resp. tiež W. Pettyho), ktorá by mala podporiť oprávnenosť zdanenia pri zdroji v medzinárodnom prostredí.

Ak chceme správne pochopiť dôvody nedokonalosti súčasných spoločenských inštitúcií a noriem, musíme skúmať okolnosti a podmienky ich vzniku, ako aj motivácie, ktoré k ich vzniku viedli. Pri skúmaní charakteru existujúcich spoločenských inštitúcií a ich jednotlivých foriem je preto podľa nášho názoru nevyhnutné skúmať aj dobu v ktorej vznikli. Mnohé inštitúcie totiž vznikali v minulosti v prostredí, ktoré už nezodpovedá dnešným podmienkam.

Aj v oblasti zdanenia mnohé vznikajúce opatrenia reflektovali technické obmedzenia ako aj úroveň ekonomického myslenia doby svojho vzniku[2]. Podľa nášho názoru je preto potrebné si uvedomiť, že väčšina základných spoločenských noriem, vrátane daňových, vznikala na základe ekonomických princípov, okolností a úrovne poznania platných v minulých storočiach. Napríklad myšlienky ekonómov a mysliteľov 17. storočia vznikali v prostredí bez významnejšej mobility obyvateľov (a bez väčšej schopnosti „hlasovať nohami"), teda bez zapojenia zahraničných subjektov (cudzincov). Tento fakt je určujúci aj pri analýze princípov zdanenia, keďže ich prvé definície vznikali v prostredí stredovekých štátov, v ktorých oproti

[1] Tzn. politici predpokladajú, že ľudia z rôznych dôvodov preferujú nižšiu mieru zdanenia pred vyššou a na druhú stranu preferujú vyššiu mieru verejných výdavkov pred nižšou.

[2] V tejto súvislosti považujeme za potrebné zdôrazniť ďalší predpoklad našej analýzy, ktorým je tendencia spoločenských inštitúcií (noriem a pod.), resp. ich tvorcov, oneskorene reagovať na významné zmeny spoločenských podmienok. Vytvorenie spoločenskej inštitúcie či normy je vždy dôsledkom konkrétneho historického vývoja (materiálneho a myšlienkového) v danej spoločnosti. Pri prudkej zmene spoločenských charakteristík (napr. pri industrializácii, a následne zvýšenej medzinárodnej mobilite kapitálu a osôb) sa už existujúce normy nerušia a nenahrádzajú novými, ale postupne sa modifikujú, prispôsobujú novým okolnostiam.

dnešku nedochádzalo k tak významnému zapojeniu cudzích osôb do národných ekonomík. V prípade argumentácie odvolávajúcej sa na Hobbesa je potrebné povedať, že jeho príspevok k zdaňovaniu sa týkal predovšetkým rovnosti v zdanení. Uprednostňoval zdanenie spotreby pred zdanením bohatstva, v čom videl záruku rovnosti medzi daňovníkmi a zníženie sociálnej nerovnosti tých čias. Autorove myšlienky musíme chápať v kontexte doby, v ktorej vznikli. Snahou Hobbesa bola podľa nášho názoru zmena rozdelenia daňového bremena v spoločnosti medzi jednotlivé jej vrstvy a dosiahnutie vyššej efektívnosti zdanenia. Musíme mať na pamäti, že Hobbesov prístup, vzhľadom na obdobie, v ktorom vznikal, nemohol vo významnejšej miere reflektovať zapojenie cudzích subjektov. Z uvedených dôvodov by táto argumentácia nemala byť používaná pre zdôvodňovanie zdanenia pri zdroji v medzinárodnom prostredí.

Vznik inštitútu zdanenia pri zdroji možno pritom hľadať už v stredovekých daňových systémoch. Podľa autorky P. Soos [12] je využitie zdanenia pri zdroji vo Veľkej Británii dokázateľné už na začiatku 16. storočia (1512) v prípade tzv. *lay subsidy*, čo bola v princípe osobná daň na majetok [17]. Podľa tejto autorky sa zdanenie pri zdroji stalo od tohto obdobia integrálnou súčasťou daňových systémov. S podobným názorom sa môžeme stretnúť aj u Hemetsberger-Koller a Kolm (2006) [5], podľa ktorých pozitívnou zmenou pre štátne príjmy Pruska bolo až zavedenie povinnosti zamestnávateľov poskytovať informácie o vyplatených príjmoch v roku 1907, ktoré viedlo až k zavedeniu povinnosti zrážať daň v roku 1920. Rakúsko zaviedlo túto povinnosť po prvej svetovej vojne. Môžeme teda tvrdiť, že prvotným motívom pre zdanenie príjmu pri zdroji bola predovšetkým snaha o technické zjednodušenie výberu dane, ako aj snaha o zamedzenie daňovým únikom (keďže je administratívne jednoduchšie kontrolovať jedného zamestnávateľa ako napr. sto zamestnancov). Fungovanie inštitútu zdanenia pri zdroji v dobách, keď medzinárodná mobilita osôb a kapitálu a zapojenie cudzincov v domácich ekonomikách boli na minimálnej úrovni, plne zodpovedalo nami preferovanému princípu zdanenia, tzn. daň, bez ohľadu na to, na akej úrovni bola vyberaná (tzn. či na úrovni príjemcu alebo platiteľa príjmu), zaťažovala peňažnú kapacitu daňovníka, ktorý mal priamy vzťah so zdaňujúcim štátom. Avšak s postupne narastajúcou intenzitou medzinárodných vzťahov a mobilitou osôb sa do pozície prijímateľov príjmu dostávajú aj cudzinci, pri ktorých už priamy funkčný vzťah so zdaňujúcim štátom neexistuje. Normy upravujúce zdanenie pri zdroji sa ale v tomto prípade nezmenili, čo môže byť dôsledkom jednak už spomínanej „neschopnosti“ inštitúcií, resp. noriem primerane reagovať na spoločenské zmeny alebo neochoty zdaňujúceho štátu rozpoznať faktický rozdiel medzi zdanením bohatstva rezidenta a nerezidenta, tzn. snahy o uplatnenie národnej suverenity pri ochrane národného bohatstva, či prejav politicky motivovanej snahy o získanie čo najvyššieho daňového výnosu (tzn. štát zdaní všetko, na čo má dosah) bez ohľadu na ekonomickú opodstatnenosť. Tento posledne uvedený motív je v ekonomickom živote prítomný aj v súčasnosti, keď rozhodnutia o zdaňovaní sú prijímané v rámci politického procesu, pričom osoby, ktoré sa na ňom zúčastňujú, nemusia mať dostatočné vedomosti o podstate a účinkoch zdanenia.

Základným a určujúcim vzťahom pre účely vymedzenia okruhu daňovníkov je podľa nášho názoru „fyzický“ vzťah medzi človekom a verejným sektorom, ktorý mu poskytuje základné verejné statky, ako sú obrana, ochrana života a majetku, právna ochrana a všeobecne právny systém a podobne. Pri takomto chápaní je zrejmá neuplatniteľnosť princípu úžitku. Pre jeho využitie by bolo potrebné určiť veľkosť úžitku, ktorú má konkrétny človek z vládnych výdavkov (tzn. jeho podiel na spotrebe). Toto je vzhľadom na podstatu čistých verejných statkov [22], ktoré sú základom existencie verejného sektora, z princípu nerealizovateľné.

Samozrejme, pri takomto chápaní vzťahu medzi verejným sektorom a človekom vyvstáva problém práv cudzincov. Ide predovšetkým o určenie vzťahu k cudzincom, tzn. napríklad osobám nachádzajúcim sa dočasne na území danej krajiny. Ako uvádza Mráz, základnými zásadami medzinárodných vzťahov vo vzťahu k cudzincom sú vzájomnosť a rovnoprávnosť

[9]. Podľa tohto chápania poskytujeme cudzincom (tzn. nekvalifikovaným osobám) určité práva na základe vzájomnej dohody s ich domovským štátom. Táto dohoda zabezpečuje reciprocitu poskytnutých práv [19]. Daňovníkmi sa však cudzinci stanú až po splnení kvalifikačných podmienok (dĺžka pobytu, stredisko životných a ekonomických záujmov atď.). Uvedená úprava sa však vzťahuje na cudzincov, ktorí sa fyzicky nachádzajú na území daného štátu. Existuje teda priama väzba medzi základnými „službami" verejného sektora a ich priamym užívaním (spotrebou). Takáto väzba však podľa nášho názoru neexistuje v prípade osôb nachádzajúcich sa v zahraničí, ktoré majú príjem zo zdrojov v danom štáte. Úžitok z existencie verejného sektora v krajine zdroja príjmu je v tomto prípade len obmedzený a nepriamy, a nemá súvis s priamou spotrebou základných služieb (obrana, spravodlivosť a pod.). Napríklad zlyhávanie poskytovania základných verejných statkov v krajine zdroja nemá žiadny priamy vplyv na život a kvalitu života príjemcu-cudzinca. Tým, kto bude priamo znášať strasť je osoba, ktorá príjem vypláca, nachádzajúca sa v krajine zdroja. S uvedeným súvisí tiež recipročný charakter obchodu. Napríklad pri cezhraničnom obchode je príjem do zahraničia obvykle vyplácaný ako protihodnota za poskytnutý majetok, tovar alebo službu, ktoré zvýšili hodnotu bohatstva krajiny zdroja, a zároveň je takáto transakcia rovnako v záujme osoby, ktorá príjem vypláca a ktorá za túto právom garantovanú možnosť platí v tomto štáte dane. Štátna organizácia a právny systém v štáte zdroja existujú primárne pre uspokojenie potrieb svojich občanov-daňovníkov. Títo daňovníci formujú na danom území verejný sektor prispievajú na jeho fungovanie. Čo sa týka medzinárodného obchodu, musíme opäť zdôrazniť, že tento obchod je recipročnou operáciou, tzn. dva subjekty mali záujem na kúpe/predaji napr. know-how (majetku, pôžičky, ...). Jedna osoba mohla tento know-how vyvinúť pod ochranou krajiny A ako jej rezident, iná osoba ho môže využiť v krajine B ako jej rezident, za čo musí zaplatiť do A primeranú protihodnotu. Obidve osoby rovnocenne realizujú svoje záujmy pod ochranou svojich „domovských" krajín. Táto ochrana je jednou zo základných funkcií, ktoré tieto štáty plnia pre svojich daňovníkov, a na ktoré im títo daňovníci prispievajú zo svojich zdrojov. Princíp úžitku teda nemôže byť použitý ako argument pre uvalenie všeobecnej dane z príjmu na peňažnú kapacitu osoby, ktorá nie je na to kvalifikovaná. Na základe vyššie uvedených argumentov sme toho názoru, že osoba-daňovník má časťou zo svojej peňažnej kapacity prispievať tam, kde sa dlhodobo zdržiava, má rodinu a ekonomické a osobné väzby. Len v tejto krajine táto osoba v podstatnej miere užíva základné, čisté verejné statky (obrana, bezpečnosť, atď.) poskytované konkrétnym verejným sektorom. Ako sme už uviedli, ide predovšetkým o základné funkcie verejného sektora, ktoré majú charakter čistých verejných statkov a pri ktorých nie je možné určiť podiel užívateľa na ich spotrebe. Je to podľa nás práve priamy úžitok z ich poskytovania, resp. strasť z ich absencie, ktoré determinujú príslušnosť daňovníka pre platenie všeobecnej dane (z príjmu v tomto prípade). Určenie okruhu daňovníkov na základe úžitku nereflektuje uvedenú väzbu a zahŕňa medzi daňovníkov aj osoby, ktoré nie sú fyzicky príslušné k štátu zdroja a neužívajú priamo úžitky spojené s existenciou verejného sektora v krajine zdroja. Ich úžitok z jeho existencie je len preneseným úžitkom prostredníctvom ochrany osoby, ktorá vypláca príjem. Ochrana (ako jeden z verejných statkov) tejto osoby vyplácajúcej príjem je však jej vlastným priamym úžitkom, pričom táto osoba prispieva na jeho existenciu zo primerane svojej peňažnej kapacite.

Zdanenie pri zdroji v medzinárodnom prostredí ako základná príčina vzniku dvojitého zdanenia podľa nášho názoru vzniklo ako rozšírenie pôsobnosti vnútroštátneho spôsobu zdanenia aj na cudzincov bez rešpektovania základných ekonomicko-spoločenských princípov zdanenia. Nie je podľa nášho názoru správne, aby bol príjem sám osebe chápaný ako nositeľ akejkoľvek kapacity znášať daň, pretože tá sa môže viazať len na konkrétnu fyzickú osobu-daňovníka. Príjem je len všeobecne akceptovaným ukazovateľom peňažnej kapacity daňovníka, od ktorého má verejný sektor štátu, ktorého je občanom-rezidentom, právo požadovať príspevok na svoje

fungovanie. Zdanenie by sa preto malo vždy viazať na konkrétnu osobu a jej zdroje pri rešpektovaní teritoriálneho vzťahu medzi daňovníkom a verejným sektorom.

4 Závery

Prvým záverom nášho rozboru je tvrdenie, že zdanenie pri zdroji vychádzajúce z princípu úžitku ako základ pre uvalenie všeobecnej dane z príjmu v medzinárodnom prostredí nemá primerané opodstatnenie. Považujeme ho za dôsledok nedostatočného prispôsobenia princípov zdanenia aktuálnej spoločensko-ekonomickej situácii. Podľa nášho názoru princíp zdanenia podľa úžitku v ponímaní napríklad Hobbesa, Pettyho a neskôr aj Smitha smeroval skôr k vymedzeniu okruhu osôb, ktoré majú platiť daň v rámci jednej ekonomiky. Snaha autorov smerovala k dosahovaniu rovnosti medzi daňovníkmi a k odmietaniu presunu daňového bremena na spoločenské vrstvy, ktoré sa nevedia účinne politicky brániť. Samotný inštitút zdanenia pri zdroji mal predovšetkým technický charakter. Pri jeho posudzovaní musíme brať do úvahy spoločenskú situáciu v dobe, kedy bol tento princíp formulovaný. Máme za to, že tento princíp už nie je vhodný pre globalizované ekonomické prostredie. Zdanenie pri zdroji predstavuje základný problém v medzinárodnom prostredí, vnáša distorziu do alokačných rozhodnutí a tým znižuje efektívnosť globálnej ekonomiky. Zdanenie pri zdroji zároveň znemožňuje efektívne zdanenie daňovníkov podľa ich skutočnej peňažnej kapacity v krajine rezidencie. V dôsledku aplikácie princípu zdanenia podľa úžitku z verejných výdavkov na fungovanie štátu (zdroja) prispieva daňovník, ktorý nemá priamy úžitok z jeho primárnych štátnych funkcií (ochrana života a majetku, obrana, súdy, atď.). Máme za to, že úžitok nerezidenta je len preneseným, sekundárnym úžitkom. Priamy, resp. primárny úžitok z existencie verejného sektora znáša vždy rezident. Okruh daňovníkov, ktorí by mali prispievať na potreby konkrétneho verejného sektora je potrebné určovať na základe priameho vzťahu a *fyzickej príslušnosti* osôb; vzhľadom na charakter verejných statkov je jediným primeraným spôsobom rozdelenia daňového bremena schopnosť, resp. možnosti daňovníka podieľať sa na nákladoch, ktoré je v súčasnosti možné efektívne merať len prostredníctvom *peňažnej kapacity* daňovníka.

Ďalším zo záverov našej práce je jednoznačná preferencia zdanenia podľa rezidencie. Máme za to, že je aj do budúcnosti spoločensky významné, aby sa udržiaval priamy vzťah medzi daňovníkmi, ktorí fyzicky žijú na území štátu a verejným sektorom, existujúcim v danom štáte. Okruh osôb, ktoré majú prispievať na úhradu nákladov daného verejného sektora, je podľa nášho názoru potrebné vymedzovať na základe ich fyzickej príslušnosti pri rešpektovaní osobných a ekonomických väzieb. V princípe sa tento prístup zhoduje s určovaním daňovej rezidencie v prípade fyzických osôb podľa prístupu OECD. Podľa nášho názoru musí byť zachovaná priama väzba medzi poskytovanými verejnými statkami a ich príjemcami. Príjemcami sú osoby, ktoré priamo pociťujú úžitok zo základných aj ďalších verejných statkov poskytovaných konkrétnym verejným sektorom, resp. pociťujú strasť pri ich zlyhaní či obmedzení.

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BANK PAYMENT OBLIGATION – NEW CHALLENGE FOR SUPPLY CHAIN FINANCE

Eva JANČÍKOVÁ[1]

[1] University of Economics in Bratislava, Faculty of International Relations, Department of International Economic Relations and Economic Diplomacy, Dolnozemská cesta 1/b, 852 35 Bratislava, Slovakia, e-mail: eva.jancikova@euba.sk

ABSTRACT

The supply chain finance uses traditional forms of trade finance, such as financing under letters of credit, factoring and forfaiting. At present it is estimated that over 80% of international trade is realised on the base of an open account. Banks tried to find a product providing benefits of letter of credit and open account. The result was a new bank product so called Bank Payment Obligation (BPO), which enables to banks to offer flexible risk mitigation and financing services across the supply chain to their corporate customers. The purpose of the paper is to present this new product – Bank Payment Obligation, and highlight its benefits for supply chains finance. This is a new theoretical and practical issue and we are using available official documents, especially Uniform Rules for Bank Payment Obligation (URBPO) adopted by ICC, Paris and case studies of some large banks.

Keywords: Bank Payment Obligation, Supply chain finance, Letter of Credit, Open Account, Trade Finance

JEL codes: G30, F34

Introduction

Globalisation of international relations brings the creation of new supply chains and deepening of relationships within them. The supply chain finance uses traditional forms of trade finance, such as financing under letters of credit, factoring and forfaiting. Trade finance involves four basic elements: facilitation of secure and timely payment across borders, provision of financing to parties in a supply chain or trade transaction, effective mitigation of risk and facilitation of information flow. Very important are also needs of the company itself. The relative priority of one element over others, the exact mix of solution elements in a particular transaction is determined by the relationship of parties and the markets involved. At present it is estimated that over 80% of international trade is realised on the base of an open account. In an open account, the banks are involved in financing only indirectly through working capital loans to suppliers or buyers.

Letter of Credit (L/C), one of the most familiar instruments in trade finance for at least several hundred years, traces its origin to the very early days of this form of financing. The L/C is acknowledged as a flexible and highly effective instrument of trade finance. On the other hand L/C is considered complex and cumbersome, highly process-intensive, prone to error and therefore unpopular among importers and exporters in most markets across the world.

The complexity of use of the L/C, together with the process intensive nature of its transactions and the high cost of this instrument, have been at the root of a decade-long shift away from the L/C towards the conduct of trade on Open Account terms, where the importer and exporter

simply agree to settlement via credit to the account of the exporter, largely eliminating the need for bank intervention in trade transactions. [5]

Spite of that, L/C remains important in certain regions, especially in the trade between developed and developing countries, where the country risks are a very important issue. During the crises we could also notice as importers and exporters return to this mechanism based on its adaptability and its highly effective risk mitigation capabilities.

Banks tried to find a product providing benefits of letter of credit and open account. The result was a new bank product so called Bank Payment Obligation (BPO), which enables to banks to offer flexible risk mitigation and financing services across the supply chain to their corporate customers. This new product is a result of innovation process in banking especially in trade finance. Last decade is marked by strong effort to introduce new modern products based on electronic communications between parties involved in the transaction.

The last forty years practice in trade finance is influenced by the development of electronic commerce and electronic banking, started in the late seventies of 20th century by establishment of Society for Worldwide Interbank Financial Telecommunication (SWIFT) to provide interbank electronic communications. The banking and trade finance get a new dimension and trade is largely speedier and more efficient.

The purpose of this paper is to present the new product – Bank Payment Obligation, and highlight its benefits for supply chains finance. This is a new theoretical and practical issue and we are using available official documents, especially Uniform Rules for Bank Payment Obligation (URBPO) adopted by ICC, Paris and case studies of some large banks.

1 Innovation in Trade Finance

In the late sixties the significant increase in international banking operations exceeded the traditional manual processing options and options already available to telecommunications. Until then used telex and telegrams did not provide sufficient security and did not allow the efficient automation. Costs were rising rapidly and individual banks have started to build their own automated clearing systems. The use of different systems and practices of individual banks in the payment system led to confusion and complications in the processing of payments. Group of major banks proposed a solution that was based on two basic requirements: a common language and common telecommunications system between banks.

1.1 Establishment of SWIFT

In May 1973, a group of 239 banks from 15 countries of Europe and North America, founded the nonprofit organization as a cooperative, constituted by the Belgian law, which was wholly owned by member banks and was established in Brussels. SWIFT is an international company which operates a global network, whereby there is interchange of messages on financial transactions between banks and financial institutions. His work began by defining a common language for financial transactions and processing systems commonly used financial data. The company sought to harmonize and standardize inter-bank communication and to enable data transfer between banks and other financial institutions with an accent on safety and reliability. The proposal to develop a uniform system, the development of technical, commercial and legal issues took another four years. Data transmission is realized paperless, which is a prerequisite for further automated processing to banks and clients of the banks.
The SWIFT system was put into operation in 1977, when all of its founding countries live connected and the number of member banks rose to 586. In the first year were sent a total of 3.4 million SWIFT messages. Originally planned volume of 300.000 messages per day in a

short period was significantly exceeded. Milestone of 20 million messages was reached on 31st may 2012. In 2012 SWIFT was connected over 10.279 live users from 212 countries. More than 1000 corporates were on SWIFT network. In 2012 were sent 4.6 trillion messages. The average time to receipt of the report is less than 20 seconds, and service availability is 99,998%. [8]

SWIFT has brought a new electronic system of transmitting messages; the benefits lie in the speed, security and efficiency of message transfer between banks. The time between receiving and sending messages are reduced to a minimum. Through standardization and self-control element is excluded erroneous admission misconstruction or forgery. The system operates as a paperless system, which is largely streamlining payment. Perhaps most important of SWIFT was the creation of standardized messages, which could be further processed electronically, allowing the development of electronic banking, electronic transfer of communication to the bank's clients. The first phase was mainly the communications in clean payments and then were gradually introduced the applications for electronic communication in more sophisticated products such as documentary collections, letter of credits and guarantees. This communication has been carried out SWIFT, but used the systems of standardization, which came by SWIFT.

Table 1 Growth in Number of SWIFT Users, Countries and Messages in years 1973 - 2012

YEAR	USERS	COUNTRIES	MESSAGES IN MILLION
1973	239	15	0
1977	518	22	3, 4
1980	768	25	20, 6
1990	3049	83	332,9
2000	7125	192	1274
2010	9705	209	4031,9
2012	10279	212	4589,1

Source: SWIFT History [8]

As we can see in the Table 1, the adoption of SWIFT by banks needed a long time spite of the importance of new form interbank communication. First twenty years the number of users and countries grow very slowly. The breakthrough occurs more than 20 years after sending the first message. Now we cannot imagine that any bank involved in foreign trade could exist without using SWIF channels.

SWIFT importance lies in the fact that it laid the groundwork not only for interbank communication, but allowed the development of internal bank information systems and later the electronic banking. The establishment of SWIFT can be considered one of the most important events in banking history and influencing the world economy.

1.2 Trade Service Utility

Further development of electronic commerce and electronic banking results in the need for a new service that would provide comfort especially for supply chain to finance their business. Such service is called Trade Service Utility (TSU) and comes with SWIFT and several of the world's largest banks.

Summary of characteristic components of TSU [4]:

- TSU deals with data elements which are extracted from commercial documents, mostly from the order, commercial invoice and several transport documents, such as notification of the carrier or freight forwarders confirmation of receipt of goods.

- Automated reconciliation of data from the document is designed to provide in good time and reliable sources of information which can be used to promote an efficient approval process, including financing before and after delivery.
- TSU was designed for banks and built by banks, which are both customers and shareholders, and SWIFT. TSU competes with banks and does not interfere with the competitive space. Providing data and the reconciliation of the SWIFT message enables banks to develop their own business solutions.
- TSU management infrastructure reduces the cost of investments in banks. TSU standards support interoperability among the participating banks. The rules that were included in the description of services specify the obligations of banks and SWIFT to each other.
- TSU was officially launched on 2 April 2007. The exchange of the first "live" transactions occurred between JPMorgan Chase in London and BNP Paribas in Hong Kong. The transaction included an order acceptance, then the invoice and transport data corresponding to the order.

Table 2 TSU in 2013

TOTALS	2013
Banking groups reachable on TSU	84
Countries reachable on TSU	48
TSU – New established transactions (live)	569
TSU – Billable transactions (live)	3,717
TSU – Number of tsmt messages (live)	12,291

Source: SWIFT [3]

TSU is an important step that allows banks to fill the gap in the product range and introduce a more holistic approach to supply chain solutions. This is an important step in the new stage of development to provide customer service that can quickly respond to rapidly developing market. The implementation of TSU is connected with a new trade finance product – Bank payment obligation.

2 Bank Payment Obligation

Bank Payment Obligation means an irrevocable and independent undertaking of an Obligor Bank to pay or incur a deferred payment obligation and pay at maturity a specified amount to a Recipient Bank following Submission of all Data Sets required by an Established Baseline resulting in a Data Match or an acceptance of a Data Mismatch pursuant to sub-article 10 (c) Uniform Rules for BPO (URBPO) Article 3. [6]

The BPO addresses the key four elements of Trade Finance, identified earlier [5]:

1. Payment. The BPO is a payment assurance. On one hand, sellers get the assurance to be paid on time as per the payment terms, while buyers can control the payment execution and optimize their banking credit lines. Compared to documentary instrument, BPO is expected to improve the cash conversion cycle for exporter.
2. Financing. The BPO is positioned, and has been accepted by banks, as possible collateral for financing. It has been recommended that the BPO be granted similar accounting and capital treatment as an L/C. Sellers can benefit from pre/post-shipment financing from their own bank based on approved purchase order or approved invoice under a BPO, while buyers can negotiate extended payment terms with their respective

bankers under a BPO. The use of a Bank Payment Obligation allows for the provision of financing to either the importer or the exporter.

3. Information. The Electronic information flow related to a BPO transaction is based on ISO 20022 standards: For exporters, the available data will help to improve liquidity forecasts and discrepancy/amendment management. The ISO 20022 structure will facilitate the integration with e-invoice services.
4. Risk Mitigation. The BPO transfers risk from the buyer to one or several banks. Sellers can mitigate the financial, commercial and some transport and economic risks as described in the table below.

The BPO is a data-matching based financial undertaking that aims to respond to the demand for streamlined settlement and financing and secure payment options in trade finance, positioned as a bank-assisted financing tool on a spectrum somewhere between the traditional documentary credit and the open account transaction. The BPO allow the banks to once again play a significant role I the facilitation of trade through trade finance, enabling clients to benefit from features and functionality that provide value from both trade finance and a treasury/cash management perspective. [5]

The main intention of the BPO was to find a new safer solution for open account business and not to replace the letter of credits. Spite of this primary intention some of corporates find out that the BPO can materially reduce the documentary risk, costs and frustration associated with transactions under L/Cs.

The BPO allows for effective risk mitigation, and is technology agnostic, as relates to the matching engine that is used to determine compliance or non-compliance of the data transmitted in the course of a BPO transaction. The ISO 20022 XML structure, compatible with the BPO, supports any type of character set and is not limited in the size of the documents, which have been commonly reported as important issues when dealing with official legal documentation in some key emerging countries. By virtue of its electronic nature, the BPO will facilitate secure, efficient and objective transactions, eliminating some of the complexity, inefficiency and uncertainty involved in L/C-based trade. [5]

2.1 The BPO transaction flow

The BPO transaction flow relies on the use of minimum fields with trade information required to assess the credit risk and on the dispatch of shipment documents by seller to buyer directly.

They are nine clear steps from purchase order generation through to when the seller gets paid and these are grouped into three stages: “baseline, matching and settlement. [1]

Stage 1: Establishing the baseline

1. Buyer sends a purchase order to the seller,
2. Buyer provides the minimum data from the PO and the BPO conditions to the obligor bank, and
3. Seller confirms the data from the PO and the BPO conditions to the recipient bank.

If the submitted data matches on the transaction matching application (TMA), the “baseline” is established. Buyer and seller receive the matching report from their banks The BPO is now irrevocable but conditional (so subject to the electronic matching of agreed datasets).

Stage 2: Matching datasets

4. Seller ships the goods to the destination,

5. Seller provides the shipment and invoice data to its bank, which submits it to TMA for matching,
6. TMA informs the buyers´ bank and the sellers´ bank about the (un)successful dataset match, and
7. Seller´s bank informs the seller about the successful dataset match.

At this point the BPO becomes operative and due according to the agreed payment terms.

Stage 3: Settlement

8. Seller sends the paper documents directly to the buyer enabling the buyer to receive the goods,
9. On the due date, the obligor bank debits the proceeds from the buyer´s account and remits the funds to the recipient bank. The recipient bank credits the seller´s account.

Buyer and sellers have these key roles and responsibilities for BPO: negotiate the merchandise details (description, quantities, unit price …); agree on the amount of the payment obligation and settlement/charges conditions; define the payment terms - on receipt of the invoice, on delivery or deferred and agree on the expiry date, the shipping terms and latest shipment date. Obligor banks have to analyse the risk and manage internal compliance; price the BPO to the buyer; propose the BPO in favour of the Recipient Bank (Seller´s bank); settle the BPO on the due date, subject to matching conditions having been met and provide optional financing services to the Buyer, as required. Key roles and responsibilities of Recipient Bank are in analysing the risk and managing internal compliance; validating the Seller´s data set submissions; pricing the BPO-based services to the Seller; advising/confirming the BPO to the Seller and proving financing services to the Seller, as required. [7]
BPO enhances the L/C process and brings these benefits: [7]

- Electronic presentation of data instead of physical documents
- Improve quality and objectivity of compliance verification
- Quicker process as it focuses only on data relevant for financing
- Can be added more easily at any time, for any amount value
- Exporters gain certainty of the timing of cash flow and can improve liquidity forecasts
- Exporters may use BPO to get pre-/post-shipment finance through their own bank
- Exporter can offer commercial incentives
- Importers are able to reduce supply default risk
- Risk syndication for risk reward transactions
- Shortening the processing time and decreasing costs while securing the transaction

BPO addresses Open Account challenges with these benefits: [7]

- Exporters get pre-/post-shipment financing to support working capital needs – no need for loans or revolving credit lines
- Exporters can negotiate earlier payment terms – no need for forfaiting, factoring
- Importers can extent payment terms from their own banks
- Improve transaction tracking and payment reconciliation
- Establish and maintain successful win-win trade relationships
- Reduce on-boarding and operational costs
- Offer payment risk mitigation
- Can be used as collateral for financing
- Secure the transaction while maintaining a competitive offer.

2.2 Corporate case studies

In October 2014, 15 banking groups and more than 40 corporates were live on BPO mainly from petrochemical industry, consumer goods and textile industry, mining, electronics and computers and food processing. More information about participants you can find in Table 3. [3]

Table 3 BPO adoption grows

COUNTERS	COUNT
Corporates live on BPO	More than 40
Banking groups live on BPO	15
Banking groups testing BPO on TSU	17
Banking groups adopting BPO	58
BPO certified applications for Banks	5
BPO certified applications for Corporates	4
BPO certified consultants	2

Source: SWIFT [3]

BP Chemicals and Standard Chartered Bank Case [7]

BP Chemicals revenues in 2010 were of USD 14 billion created for approx. 50% in Asia. Trade account receivables represent an amount of EUR 1.4 billion. They have more than 600 clients worldwide.

About 50 % of exposure is on secured terms and competitive commodities market requires a secure and cheaper alternative to L/Cs. They have to decrease high processing and confirming costs (0,8% of transaction value). L/Cs process limits commercial possibilities and weakens compliance under certain conditions.

Key benefits for BP Chemicals from implementing the BPO:

- Get paid on time and avoid judicial proceedings.
- Reduce complexity – removal of paper trail.
- Limit to relevant trade information only.
- Reduce cost by removing vetting activities and presentation assistance.
- Improve customer offer by allowing for flexible options.
- Improve speed of handling discrepancies.
- Reduce the risk of discrepancies.
- Reduce need for confirmation cost by being able to tap larger pools. Free up banking lines.
- Easy to exercise tool for liquidity.
- Easier access to banks to secure transactions.
- Possibility to spread the risk with multiple obligors.
- Avoid unnecessary paper flows.

They want to replace confirmed L/Cs by BPO and expect gains greater than USD 1 mil. Worldwide per year but most of the upside lies in more marginal income.

Vale case [7]

Vale revenues in 2010 were USD 46,8 billion, main product Iron ore (69,9%) and they have approximately 100 clients worldwide and their main market is China (32%)

Competitive commodities market requires a secure and cheaper alternative to L/Cs. They have at sight L/Cs for USD 18 billion with Chinese clients and Days Sales Outstanding (DSO) is between 25 and 30 days.

Key benefits for Vale from implementing the BPO:

- Reduce the DSO by approx. 10 days (including internal processes efficiency gains) with a financial gain over USD 37 million/year.
- Freeing up working capital – USD 600 million.
- Reduce costs for customers.
- Reduce documents delivery costs.
- Reduce the risk of discrepancies.
- Improve access to trade financing products to customers.
- Reduced environmental impact – reducing paper usage in extra copies of the shipping documents for the banks.

They want use BPO based on confirmed invoice and they estimate significant working capital gains over USD 37 million/year and DSO reduced by 10 days.

Manufacturer of automotive parts case [7]

The Manufacturer of automotive parts has global operations, revenues over USD 30 billion/year and 150.000 employees.

They have problems with delays in delivery parts to automotive assembly companies. Export bills require collection document handling. Importer issue an L/C to pick up goods from shipment. Trade Company is an intermediary.

Key benefits for BP Chemicals from implementing the BPO:

- Get earlier payment.
- Safe payment terms.
- Reduce the document handling costs.
- Send documents directly to counterparty.
- Importer can pick up the parts earlier.
- Facilitate the move to direct trade.
- Improve physical supply chain – supply planning and delivery.

They want to reduce export bills by using BPO and achieve sustain production cycles for key clients by sending documents directly to the client.

3 Supply Chain Finance and the Bank payment obligation

Supply Chain Finance (SCF) is a collaboration of trade-related participants provided by a financial institution, a third-party, or an internal corporate treasure using a technology platform. SCF connects the supplier, the buyer and the funding servicer electronically to provide financing based on supply chain events. [2]

Financial Supply Chain Management allows companies to manage and optimize cash flows across the value chain. Cash flows are often very inefficient and for financing of goods the best solution are to use the strongest credit rating available within the supply chain. For optimisation of these inefficiencies across chain various instruments and solutions can be used. In the past few years some new solutions have been developed. We can mention invoice matching, e-invoicing, open account payments and reverse factoring and one of the most revolutionary trade finance product – BPO.

We can summarize the key benefits for buyers in supply chain finance by extending payment terms, negotiating commercial terms and reducing supply default risk and in cash flow optimization by controlling payment time execution, paying key supplier on time, syndicating payment risk, reducing administrative costs, reducing investigations and disputes and by outsourcing payables processing. For sellers the key benefits in supply chain finance are in pre-/post-finance, alternative to factoring and in reduce interest costs. In cash flow optimisation we can mention these benefits – get paid on time, optimise risk-reward transactions, improve liquidity forecasts, improve discrepancy management, syndicate payment risk, simplify integration with e-invoices and reduce processing effort. Key benefits for banks are based on one hand on market needs mainly on open door to new business opportunities, strengthen core relationships, meet market requirement for banks to collaborate more on risk and client on-boarding. On the other hand they are based on business rationale especially on low risk business, prudent use of capital, steady source of commission and fee income, automated solution and on lower operating costs. [7]

With the increased cost of capital, the key priorities of corporates relate to access to affordable working capital solutions, in some cases, to financial support key counterparties in the supply chain, whether they are suppliers, intermediaries, clients or distributors.

Currently, supply chain solutions provided by banks are focused on existing/trusted clients and to "known" counterparties in the supply chain, and to transactions where the bank has significant visibility. This is partly a function of prudent lending and partly a result of regulatory requirements related to "Know your Client" rules.

The BPO, as an electronic instrument and an interbank undertaking, can assist banks in extending their SCF proposition across the transaction, on the buy side and the sell side, as well as to reach a larger proportion of the supply chain ecosystem – ideally, positioning an offering that can provide near-full coverage of the liquidity requirements of the global supply chain.

The electronic data-driven nature of the BPO instrument gives trade bankers the opportunity to provide supply chain financing services earlier in the transaction lifecycle, in pre- and post-shipment finance, at a more advantageous rate.

At the same time, the open and multi-bank nature of the BPO instrument gives trade banks the reach and scalability to extend financing based on interbank relationships to any counterparty around the globe, including in the context of approved payables and discounted receivables.

4 Conclusion

The BPO combines the assurances and security of a L/C and the speed and efficiency of the open account transaction. An L/C relies on a strict compliance verification of paper documents under the UCP 600 rules that enables a payment to be released by a bank. On the other hand, the open account model means buyers pay according to the payment terms, usually, upon the receipt of the goods, with no involvement from a bank to cover any shortfall if a problem arises.

According to ICC and SWIFT the bank payment obligation could play a vital role in the development of global trade. The BPO enables faster and cheaper payments and as result of that also better working capital management. To some extent it can be also used to cover the underlying risk or finance the amount owed. Some banks are looking to make it more accessible and they are offering their clients the chance to try it before buying. Banks also try to educate their customers on the benefits. The main problem is that from a technology perspective, the required investment can be expensive. BPO processing means both banks and corporates have to make a number of changes in their systems to be able to share information electronically

through SWIFT´s Trade Service Utility (TSU). The number of counterparty banks currently using the TSU is limited. If an exporter wants a BPO, it is not enough to simply have the importer´s consent – they have to ensure that the importer´s bank can access the TSU.

As BPOs are still relatively new, banks have to face the challenges particularly in preparing the appropriate client propositions and legal documents. They have also to understand how Basel III rules relate to them. The lack of precedent means also getting the necessary approvals takes time. Solution to these problems is to achieve critical mass of TSU users.

We can realize also in case studies that the former intention of banks to bring a new product for entering open account business is not always followed by corporates. One of the pilot corporates - BP Chemicals - see the key benefits in replacing confirmed L/C by BPO. They can afford it due to the fact that they have a large volume of L/C transactions. May be in some cases they could move to documentary collections and open accounts. The growth of international trade thanks to some emerging countries, especially in Southeast Asia is reflected in the fact that this region recorded the largest increase in the use of modern electronic banking products, including the BPO.

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FIŠKÁLNA KONSOLIDÁCIA A JEJ KOMPOZÍCIA

Jozef JANKECH[1]

[1] Ekonomická univerzita v Bratislave, Národohospodárska fakulta, Katedra financií, Soblahovská 29, 91101 Trenčín, Slovensko, e-mail: jozef.jankech1988@gmail.com

ABSTRAKT

Cieľom práce je analyzovať dôležitosť kompozície fiškálnej konsolidácie v kontexte dosiahnutia jej úspechu. Na tento účel sme použili dáta z rozsiahlych fiškálnych konsolidácií, ktoré podstúpili krajiny OECD od roku 1985 po rok 2010. Na základe štúdia literatúry predpokladáme, že za dosiahnutím úspešnej fiškálnej konsolidácie stojí primárne redukcia verejných výdavkov a nie navyšovanie verejných príjmov. Tento predpoklad sa na základe analýzy historických dát pokúsime potvrdiť.

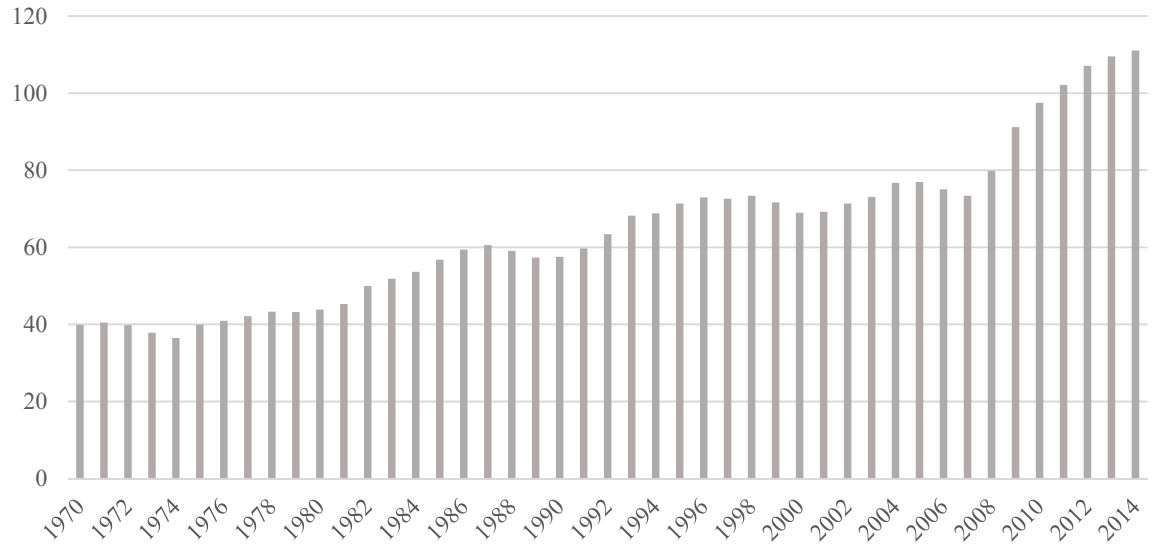
Kľúčové slová: fiškálna konsolidácia, hrubý verejný dlh, výdavková konsolidácia, príjmová konsolidácia.

JEL klasifikácia: E 62.

1 Úvod

Väčšina krajín OECD je pod tlakom rastúceho dlhu, ktorý dosahuje historické maximá, ako dokumentuje nasledujúci graf, a je nutné konať skôr, než presiahne udržateľnú hranicu. Zahájenie fiškálnej konsolidácie však nie je vôbec jednoduché, nevhodná kompozícia, načasovanie alebo rozsah môže krajine viac uškodiť ako pomôcť.

Graf 1 Vývoj pomeru hrubého verejného dlhu k HDP v % - krajiny OECD



Zdroj: OECD Economic outlook database, vlastne spracovanie.

Faktor, ktorý zohráva pravdepodobne najdôležitejšiu úlohu v procese konsolidácie je kompozícia. Konsolidácia môže byť primárne založená na znižovaní výdavkov, zvyšovaní

príjmov alebo kombináciou zmienených. Ako naznačuje literatúra, kompozícia je pravdepodobne najpodstatnejší faktor, ktorý ovplyvňuje úspech alebo neúspech konsolidácie.

V práci sa pokúsime zodpovedať otázku, aká by mala byť kompozícia fiškálnej konsolidácie, aby zvýšila pravdepodobnosť dosiahnutia jej úspechu.

2 Prehľad literatúry

Nasledujúca sekcia obsahuje prehľad rôznych tvrdení autorov, ktorí sa zaoberali vplyvom kompozície na dosiahnutie úspešnej fiškálnej konsolidácie.

Fiškálna konsolidácia založená na znižovaní výdavkov a nie na zvyšovaní príjmov (daňového zaťaženia) má väčšiu šancu stať sa úspešnou [1]. Škrty vo výdavkoch sú podstatne efektívnejšie ako zvýšenie daňového zaťaženia v kontexte stabilizácie verejného dlhu a vyhnutiu sa recesie. V mnohých prípadoch, kedy boli fiškálne konsolidácie vykonané primárne redukciou výdavkov, boli sprevádzané ekonomickým rastom a nie recesiou [2].

Heylen and Everaert empiricky dokázali, že redukcia výdavkov je najlepší spôsob ako dosiahnuť úspešnú fiškálnu konsolidáciu [5].

Prammer sa taktiež stotožňuje s ostatnými autormi, ktorý tvrdia, že na dosiahnutie úspešnej konsolidácie je potrebné, aby sa vykonala primárne na strane výdavkov. Konsolidácia, ktorá spočíva primárne na strane príjmov, a to hlavne na navýšení priamych daní, ktoré výrazne zasahujú domácnosti a nepriamych daní, má sklon stať sa neúspešnou [11].

Fiškálne zmeny vykonané primárne na strane výdavkov vedú k dlhodobo udržateľnému poklesu verejného dlhu a sú korelované s menšími alebo žiadnymi recesiami v porovnaní s konsolidáciami založenými na zvýšení daňového zaťaženia [3].

Forni, Gerali a Pisani zistili, že najlepšia konsolidačná stratégia spočíva v simultánnej kombinácii permanentných redukcií výdavkov a daňového zaťaženia. Taktiež súhlasia s tvrdením, že dosiahnutie úspešnej fiškálnej konsolidácie je možné pomocou redukcie výdavkov vo vyššej miere v porovnaní s navýšeniami príjmovej strany rozpočtu [4].

Fiškálna konsolidácia bude úspešná a dosiahne ustálený dlhodobý rast HDP, ak prebehne na strane výdavkov a súčasne aj príjmov [12]. Ak nie je možné konsolidáciu urobiť na strane výdavkov, či už z dôvodu politickej neochoty alebo z dôvodu vyskytnutia výrazných nežiadúcich efektov, fiškálna konsolidácia vyžaduje využitie strany príjmov. Nárast dodatočných príjmov by však mal byť vykonaný tak, aby sa minimalizoval nežiadúci vplyv na efektívnosť súkromného sektora a blaho obyvateľstva. Takýmto spôsobom je možné dosiahnuť úspešnú fiškálnu konsolidáciu aj napriek tomu, že je vykonaná primárne na strane príjmov [10].

3 Dáta a Metodológia

Nasledujúca sekcia obsahuje definíciu obdobia fiškálnej konsolidácie a zdroje údajov.

3.1 Definícia

Definícia obdobia fiškálnej konsolidácie je veľmi dôležitá, pretože na základe tejto definície sa získavajú údaje, rozdielne údaje môžu viesť k rozdielnym záverom. Nanešťastie neexistuje jedna široko uznávaná a využívaná definícia, ale niekoľko. V závislosti od výberu definície môžu výskumníci prísť k rôznym záverom aj napriek tomu, že skúmajú tú istú konsolidáciu, tej istej krajiny. Na identifikáciu obdobia fiškálnych konsolidácii autori využívajú definície založené na akomkoľvek zlepšení určitých fiškálnych ukazovateľov, až po presne numericky

stanové vylepšenia týchto ukazovateľov, vyjadrené ako podiel k HDP, resp. ako podiel k potenciálnemu produktu. Medzi pozorované fiškálne ukazovatele radíme najmä Underlying Primary Balance (UPB) a Cyclically – Adjusted Primary Balance (CAPB).

CAPB – prestavuje primárne saldo štátneho rozpočtu očistené o vplyv ekonomického cyklu.

UPB – prestavuje CAPB ešte navyše očistený od tzv. "one-off" príjmov a výdavkov (jednorazové alebo príležitostné príjmy a výdavky).

V našej práci sme definovali obdobie fiškálnej konsolidácie v súlade s Molnarom, ktorý definoval obdobie fiškálnej konsolidácie ako pozvoľnú a kontinuálnu úpravu UPB v období minimálne dvoch po sebe nasledujúcich rokoch. Konsolidácia končí v roku, kedy sa hodnota UPB prestane zlepšovať [8].

Na určenie úspechu alebo neúspechu konsolidácie existuje taktiež niekoľko definícii. Na účely výskumu sme si zvolili definíciu, ktorá za úspešnú fiškálnu konsolidáciu považujú takú, kedy pomer hrubého verejného dlhu k HDP je tri roky po ukončení fiškálnej konsolidácie najmenej o 5% nižší v porovnaní s hodnotou v poslednom roku fiškálnej konsolidácie [1], [7].

3.2 Dáta

Na výskum sme vybrali fiškálne údaje krajín OECD, ktoré postúpili viacročnú fiškálnu konsolidáciu v období od roku 1985 po rok 2010.

16 krajín bolo vybraných na základe vyššie zmienenej definície fiškálnej konsolidácie. Medzi tieto krajiny patria: Austrália (1993-1998), Maďarsko (2007-2009), Island (1988-1982), Taliansko (1990-1995), Japonsko (2005-2008), Švajčiarsko (1998-2000), Rakúsko (1996-1997), Kanada (1993-1997), Fínsko (1993-2000), Francúzsko (1994-1999), Nórsko (1993-1997), Nórsko (2004-2007), Španielsko (1992-1997), Švédsko (1994-1998), Spojené Kráľovstvo (1994-1999) a USA (1993-1998).

Krajiny boli rozdelené do dvoch skupín, na základe toho, či vykonali fiškálnu konsolidáciu primárne na strane výdavkov alebo príjmov.

UPB T_0 – prestavuje hodnotu UPB vyjadrenú ako pomer k potenciálnemu produktu v poslednom roku pred zahájením konsolidácie.

UPB T_1 – prestavuje hodnotu UPB vyjadrenú ako pomer k potenciálnemu produktu v poslednom roku konsolidácie.

Celková zmena vo výdavkoch – prestavuje rozdiel vo výdavkoch vyjadrených ako pomer k HDP medzi posledným rokom konsolidácie a posledným rokom pred zahájením konsolidácie.

Celková zmena v príjmoch – prestavuje rozdiel v príjmoch vyjadrených ako pomer k HDP medzi posledným rokom konsolidácie a posledným rokom pred zahájením konsolidácie.

Hrubý verejný dlh T_0 – predstavuje pomer hrubého verejného dlhu k HDP v poslednom roku konsolidácie.

Hrubý Verejný dlh T_1 – predstavuje pomer hrubého verejného dlhu k HDP v treťom roku po skončení konsolidácie.

Všetky hodnoty v tabuľkách sú uvedené ako pomer k HDP s výnimkou UPB, ktorého hodnota je uvedená ako pomer k potenciálnemu produktu.

4 Analýza fiškálnych konsolidácii

Nasledujúca sekcia obsahuje analýzu a vyhodnotenie úspešnosti viacročných fiškálnych konsolidácii štátov OECD rozdelených podľa toho, či boli primárne vykonané na strane výdavkov alebo príjmov.

4.1 Fiškálna konsolidácia na strane príjmov

Medzi krajiny, ktoré podstúpili fiškálnu konsolidáciu prevedenú primárne na strane príjmov radíme Austráliu (1993-1998), Maďarsko (2007-2009), Island (1988-1982), Taliansko (1990-1995), Japonsko (2005-2008) a Švajčiarsko (1998-2000).

Tabuľka 1 Fiškálne ukazovatele krajín, ktoré podstúpili konsolidáciu prevedenú primárne na strane príjmov

Krajina	UPB T_0	UPB T_1	Kumulovaná zmena vo výdavkoch	Kumulovaná zmena v príjmoch	Hrubý verejný dlh T_0	Hrubý verejný dlh T_1	Zmena UPB (T1-T0)	Zmena hrubého verejného dlhu (T1-T0)	Úspešná konsolidácia
Austrália	-1,4	2,8	-3,3	3,6	23,8	17,2	4,2	-6,6	Áno
Maďarsko	-7,7	0,5	-0,7	4,2	79,8	79,8	8,2	0	Nie
Island	-3,5	1,2	5,8	3,8	46,2	58,9	4,7	12,7	Nie
Taliansko	-3	4,2	0,9	4,8	120,9	114,3	7,2	-6,6	Áno
Japonsko	-6,1	-3	0,3	4,5	191,8	229,8	3,1	38	Nie
Švajčiarsko	-1,7	1,9	0,3	2,5	59,9	65,8	3,6	5,9	Nie

Zdroj: OECD Economic Outlook, IMF World Economic Outlook, vlastné výpočty a spracovanie.

Z celkového počtu šiestich krajín, ktoré podstúpili viacročnú fiškálnu konsolidáciu vedenú primárne na strane príjmov dosiahli úspech len dve krajiny, čo predstavuje 33,3%. Tieto krajiny sú Austrália a Taliansko, ktorým sa podarilo znížiť pomer hrubého verejného dlhu k HDP v období troch rokov po skončení konsolidácie zhodne o 6,6%.

4.2 Fiškálna konsolidácia na strane výdavkov

Medzi krajiny, ktoré podstúpili fiškálnu konsolidáciu prevedenú primárne na strane výdavkov radíme Rakúsko (1996-1997), Kanadu (1993-1997), Fínsko (1993-2000), Francúzsko (1994-1999), Nórsko (1993-1997), Nórsko (2004-2007), Španielsko (1992-1997), Švédsko (1994-1998), Spojené Kráľovstvo (1994-1999) a USA (1993-1998).

Tabuľka 2 Fiškálne ukazovatele krajín, ktoré podstúpili konsolidáciu prevedenú primárne na strane výdavkov

Krajina	UPB T_0	UPB T_1	Kumulovaná zmena vo výdavkoch	Kumulovaná zmena v príjmoch	Hrubý verejný dlh T_0	Hrubý verejný dlh T_1	Zmena UPB (T1-T0)	Zmena hrubého verejného dlhu (T1-T0)	Úspešná konsoli-dácia
Rakúsko	-2,4	1,1	-2,7	1,2	64,1	66,2	3,5	2,1	Nie
Kanada	-2,1	5,3	-9,1	0,2	96,3	82,1	7,4	-14,2	Áno
Fínsko	-3,9	7,1	-14,1	-1,6	43,8	44,5	11	0,7	Nie
Francúzsko	-2,9	0,6	-2,5	2,2	58,9	59,1	3,5	0,2	Nie

Nórsko	-8,2	-2,5	-9,5	0,1	25,8	28,5	5,7	2,7	Nie
Nórsko	-4,6	-0,9	-7,9	2,1	50,5	43,3	3,7	-7,2	Áno
Španielsko	-4,4	1,1	-4,5	0,1	62,4	52,6	5,5	-9,8	Áno
Švédsko	-3,5	3,4	-9,6	0,2	69,9	54,7	6,9	-15,2	Áno
Spojené Kráľovstvo	-4,1	3,2	-5,9	2,7	43	37,1	7,3	-5,9	Áno
USA	-1,3	2,9	-4,4	1,9	60,2	53	4,2	-7,2	Áno

Zdroj: OECD Economic Outlook, IMF World Economic Outlook, vlastné výpočty a spracovanie.

Z celkového počtu desiatich krajín, ktoré podstúpili viacročnú fiškálnu konsolidáciu vedenú primárne na strane výdavkov dosiahlo úspech šesť krajín, čo predstavuje 60%. Tieto krajiny sú Kanada, Nórsko, Španielsko, Švédsko, Spojené Kráľovstvo a USA, ktorým sa podarilo znížiť pomer hrubého verejného dlhu k HDP v období troch rokov po skončení konsolidácie priemerne o 9,9%.

4.3 Analýza úspešných fiškálnych konsolidácii

V nasledujúcej časti si zosumarizujeme fiškálne údaje krajín, ktoré podstúpili úspešnú fiškálnu konsolidáciu.

Tabuľka 3 Priemerné hodnoty fiškálnych ukazovateľov krajín, ktoré podstúpili úspešnú fiškálnu konsolidáciu

Úspešné konsolidácie	Zmena UPB (T1-T0)	Priemerná zmena Hrubého verejného dlhu	Priemerná zmena vo výdavkoch	Priemerná zmena v príjmoch
Výdavkové konsolidácie	5,8	-9,9	-6,9	1,2
Príjmové konsolidácie	5,7	-6,6	-1,2	4,2

Zdroj: vlastné výpočty a spracovanie.

Pri porovnaní úspešných fiškálnych konsolidácii založených na strane výdavkov a príjmov môžeme pozorovať, že zmena resp. vylepšenie UPB je takmer rovnaké, pomer hrubého verejného dlhu bol však podstatne viac zredukovaný pri konsolidácii podstúpenej primárne na strane výdavkov (-9,9% vs. -6,6%), ak ešte vezmeme v úvahu, že len 33,3% z konsolidácii vedených primárne na strane príjmov bolo úspešných v porovnaní so 60% úspešných konsolidácii vedených primárne na strane výdavkov prídeme k záveru a potvrdeniu teoretických predpokladov, že vedenie konsolidácie primárne na strane výdavkov zvyšuje pravdepodobnosť dosiahnutia jej úspechu.

5 Záver

Konsolidáciu je možné viesť primárne na strane výdavkov, príjmov alebo ich kombinácií. Je dôležité zvoliť si najvhodnejšiu variantu z dôvodu, že vplyv kompozície konsolidácie na úpravu fiškálnych ukazovateľov, a tým aj na celkový úspech konsolidácie je diametrálne odlišný, obzvlášť ak porovnáme konsolidáciu založenú primárne na redukcii výdavkov s konsolidáciou založenou primárne na navýšení príjmov. V súlade s literatúrou sme potvrdili, že konsolidácia

vedená primárne na strane príjmov zvyšuje pravdepodobnosť dosiahnutia úspešnej konsolidácie v kontexte redukcie pomeru hrubého verejného dlhu k HDP.

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THE APPLICATION OF FAIRNESS IN PERSONAL INCOME TAX IN THE SLOVAK REPUBLIC

Jana KOČKOVIČOVÁ[1]

[1] University of Economics in Bratislava, Faculty of National Economy, Department of Finance, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia, e-mail: kockovicova.euba@gmail.com

ABSTRACT

This article provides an analysis of fairness application as sociality and solidarity in the tax system of Slovak Republic with a focus on personal income tax. It contains an analysis and comparison of tax systems in Slovak Republic in reform years 1993 and 2004 and the current tax system in the Slovak Republic. The emphasis is on personal income exempt from tax and the possibility of reducing the tax base and the personal tax liability. The solution of research problems is a comprehensive view on the development of accesses to tax fairness and analysis of the evolution of the tax system in Slovak Republic in terms of fairness, sociality and solidarity.

Keywords: fairness, sociality, solidarity

JEL codes: H24

1 Introduction

While examining the issue of fairness in taxation emerges one of the many issues affecting fairness – whether the current law is more "fair, social, solidary" than the previous.

Tax fairness can be defined in different ways, but always subjective opinion of the individual authors prevails. One possibility is characteristic of fairness in taxation as such a state where the individual will contribute through taxes to cover the common expenses by adequate part, the size of this share should be based on the benefit that the taxpayer acquires the use of public goods. For example, mainly liberal economists such as Adam Smith consider with benefits of taxation. Taxing based on the benefits deemed fair tax corresponding with benefits flowing from public goods to a taxpayer. [5]

Government's effort to bring fairness to the tax system is most pronounced in the personal income tax. In this type of tax it is seen as sociability and solidarity. The most characteristic features that show these efforts are deductions from the tax base or tax liability, where we include tax allowances, employee bonus and the tax bonus.

National tax system depends on economic factors, but is largely influenced by decisions resulting from the political situation in the country. Every government has the task to ensure the functioning of the public sector, to allow a fair allocation of resources to citizens of the state, and not least to support the national economy. Taxes can significantly influence the behavior of economic entities. To set "fair" tax system thus depends on the plans of the government and the emphasis on sociality, solidarity and equality, as synonyms of fairness.

2 Personal income tax under Act No. 286/1992 from the perspective of tax fairness

The period after the November 1989 was the time of major political changes which culminated in the establishment of the Slovak Republic in 1993. In the field of taxation was one of the

major events of this period the emergence of the Central Tax Directorate of the Slovak Republic based in Banska Bystrica on December 1, 1992.

With the establishment of an independent state was related modification of tax laws from the period of the Czechoslovak Federative Republic and adaptation on the conditions of the Slovak Republic as an independent state. With this time is linked the first tax reform trying to near our tax system to developed countries.

Before this tax reform existed payroll tax, population income tax, income tax on literary and artistic activities, pension tax and agricultural tax. In the area of income taxes the reform emphasized the replacement of these types of taxes, and thus greater versatility of taxes. Into the tax system was introduced the social element, through tax exemption and deductible items reducing the tax base.

This system of taxation was based on the first tax Act No. 286/1992, which contained a large number of exceptions. These exemptions made system of taxation very complicated and largely enabled tax avoidance. At the date of January 1, 1993 had come into tax reform, which also introduced new taxes, like and excise taxes, inheritance tax, transfer of real estate tax, road tax and value added tax which was a substitute for turnover tax and import tax. Since our paper focuses on the personal income tax, these taxes will not be more discussed.

For subject of personal income tax were considered:

- income from employment and emoluments,
- income from business and other self-employment ,
- income from capital,
- rental income,
- other income. [8]

As noted above, this act included a large number of exemptions:

- income provided in the form of benefits, subsidies and services of social insurance, employment insurance and health insurance and benefits from the foreign insurance of the same type, as well as social benefits in kind provided instead of insurance,
- public benefits and social services,
- aid (grants, scholarships) from public funds and funds of foundations. [8]

Under this Act was possible to apply a reduction of the tax base through non-taxable part of tax base in the amount of:

- 20,400 Csk per year per taxpayer,
- 9,000 Csk per year for a dependent child living in the same household with the taxpayer, but no more than four children,
- 12,000 Csk per year to the wife (husband) living with the taxpayer in the same household, unless she (he) has not its own revenues higher than 20,400 Csk,
- 6,000 Csk per year, if the taxpayer received partial disability pension,
- 12,000 Csk per year, if the taxpayer received an invalidity pension or other pension with the condition of the invalidity,
- 36,000 Csk per year, if the taxpayer was an owner of disabled document. [8]

In addition to these non-taxable parts was possible to reduce partial tax base by partial reimbursement for staff transportation between home and the workplace. If the distance exceeded 30 km, was the amount 200 Csk per month, if the distance is more than 30 km, the amount increased to 300 Csk per month. The tax was determined under the table contained in § 16 of Act No. 286/1992.

The taxpayers also can apply the discount on tax. The tax was reduced by the amount of 5,000 Csk for each worker with disability, or by the amount of 15,000 Csk for each worker with severe disability. [8]

3 The concept of personal income tax under Act No. 595/2003 from the perspective of tax fairness

Government formed in 2002 aimed its policy at reducing the government deficit. Its aim was to reduce direct taxes using a rigorous, efficient and fair method of tax collection, and also move the tax burden to indirect taxes.

Before tax reform, which was carried out in 2004, the tax rate of personal income tax was progressive. At the same time there existed a number of special tax rates for specific types of income.

Opacity of the tax system was the reason for reform. From 1 January 2004 was valid Act. 595/2003. As mentioned above, the primary objectives of this reform might include shifting of the tax burden from direct taxes to indirect taxes and the abolition of progressive taxation. Another objective was to create a favorable business environment. As a best solution bringing fairness to taxation was designed taxation of all kinds and amounts of income by the same tax rate.

In this reform of the tax system of the Slovak Republic was contained an element of sociability increase of non-taxable part of tax base. Its aim was to reduce the tax burden for taxpayers in lower income groups. Another change following the sociality of tax system was the introduction of the tax bonus, which can be deducted from tax liability. Tax reform has brought into our economy the tax system, which used a linear tax rate for all incomes.

Subject of the personal income tax were:

- income from employment,
- income from business, other self-employment and rental,
- income from capital,
- other income. [9]

To the exempted income were included:

- health insurance, social insurance, retirement pension saving,
- compensation of income and supplementary to compensation of income,
- benefits, support and services from public health insurance, social insurance, sickness insurance and accident insurance,
- benefit to ensure basic living conditions, social services, public benefits and state social benefits,
- scholarships granted from the state budget or provided by universities and similar services provided from abroad, support and contributions from the funds of foundations,

- the amount of the tax credit for a dependent child living in the household with the taxpayer paid to the taxpayer under § 33. [9]

The tax base was reduced by non-taxable parts, namely:

- amount corresponding to the subsistence minimum from 1 January of the tax year per taxpayer per year multiplied by 19.2,
- amount corresponding to the subsistence minimum from 1 January of the tax year per year multiplied by 19.2 on a wife (husband) living in the household with the taxpayer, if has not their own income; when she / he has her / his own income. [9]

The tax base was not reduced by the amount of non-taxable part of tax base for a taxpayer if the taxpayer at the beginning of the tax period received retirement pension from social insurance. If the amount of the total income does not exceed the amount of the non-taxable part of tax base, the tax base was reduced of only the difference between the paid amount of pension and non-taxable part of tax base. It was possible to apply the non-taxable part of tax base for the wife (husband) only in the case of fully taxable resident in the Slovak Republic. Another option to make the tax liability lower was a tax bonus of a dependent child was included in paragraph 36 of Act. No. 595/2003. The tax rate was set at 19% of the tax reduced by the tax loss and non-taxable parts of tax base. Act. No. 595/2003 was during 2004 amended several times. One of the changes was the addition of the PhD. student's revenue to the income from employment. [9]

By the repeal of tax progression was criticized too liberal rules of taxation based on the theory of utilitarian, more favorable to a smarter and richer taxpayers. In our opinion, the tax reform in 2004 led to a reduction in tax disadvantages of taxpayers from higher income groups. It could thus serve as a motivating factor supporting higher job performance and economic development. [9]

In the next period, there were several changes in income tax. Since 2007, the non-taxable part of tax base decreases by a certain amount of income to zero. In this way, into the tax system was introduced a degree of tax progression.

4 Current changes in the Act No. 595/2003 from the perspective of tax fairness

Currently, the personal income tax is regulated by Act No. 595/2003. The current Slovak government in its policy statement expressed interest to review the system of taxes. The current government does not consider the consumption taxes like the most appropriate way to reduce the government deficit. Contrary, the aim is to increase the progressivity in the tax system of the Slovak Republic and only minimally reduce the disposable income of those citizens who can be classified as low-income groups.

To the subject of taxation belong these incomes:

- income from employment,
- income from business, other self-employment, rental and use of the works and artistic performances,
- income from capital,
- other income. [10]

The revenues exempted from the personal income tax are:

- health insurance, social insurance, retirement pension saving,

- compensation of income and supplementary to compensation of income,
- benefits, support and services from public health insurance, social insurance, sickness insurance and accident insurance,
- benefit to ensure basic living conditions, social services, public benefits and state social benefits, benefits for nursing a family member,
- scholarships granted from the state budget or provided by universities and similar services provided from abroad, support and contributions from the funds of foundations,
- the amount of the tax credit for a dependent child living in the household with the taxpayer paid to the taxpayer,
- employee bonus. [10]

The tax base is formed by the sum of the partial tax bases on the basis of income contained in paragraphs 5-8. It can be reduced by a non-taxable part of the tax base.

Currently, the non-taxable parts of the tax base are:

- non taxable part of the tax base on the taxpayer,
- non-taxable part of the tax base on wife (husband),
- non-taxable part of the tax base on voluntary contribution to retirement pension savings,
- non-taxable part of the tax base on contribution to supplementary pension savings (max. 180 € per year). [10]

If the taxpayer reaches a tax base:

- equal to or less than the amount of current subsistence level multiplied by 100 (2014 is the sum 19,809 €), the non-taxable part of tax base per year per taxpayer is an amount corresponding to times the subsistence minimum force on 1 January of the tax year multiplied by 100 (2014 is the sum of 3,803.33 € per year)
- greater than the current subsistence level multiplied by 100, the non-taxable part of tax base per year for the taxpayer is the amount corresponding to the difference the current minimum subsistence multiplied by 44,2 (2014 is the sum 8,755.578 €) and one quarter of the tax base; if it is less than zero, the non-taxable part of tax base is zero. [10]

If the taxpayer reaches a tax base:

- equal to or lower than the current subsistence level multiplied by 176.8 (2014 is the sum 35,022.31 €) and his wife (husband) living in the household with the taxpayer in this tax period
    - does not have its own income non-taxable part of tax base is an amount corresponding to 19.2 times the current minimum subsistence,
    - has own income not exceeding an amount equivalent to the current minimum subsistence multiplied by than the current subsistence level multiplied by 176.8, the non-taxable part of tax base is the difference between the amount equivalent to the current minimum subsistence multiplied by 19,2 and own income of wife (husband),
    - has own income in excess of an amount corresponding to the current minimum subsistence multiplied by 19,2, the non-taxable part of tax base is zero,

- is higher than the current subsistence level multiplied by 176.8 and his wife (husband) living in the household with the taxpayer in the tax period
    - does not have its own income, non-taxable part of tax base is the amount corresponding to the difference between the current minimum subsistence multiplied by 63.4 (2014 is the sum 12,558.906) and one quarters of the tax base of the taxpayer; if it is less than zero, the non-taxable part of tax base is zero,
    - has its own income, non-taxable part of tax base is the amount calculated pursuant to the first paragraph, reduced by wife's (husband's) own income; if it is less than zero, the non-taxable part of tax base is zero. [10]

For 2014, the maximum non-taxable part of tax base on the taxpayer is 3,803.33€ per year (316.94 € per month) and the maximum amount of non-taxable part of tax base on the wife (husband) is set at the same amount. [10]

The most significant change can be seen in the introduction of progression into the tax system, while incomes of individuals are divided into two tax levels:

- if the tax base does not exceed the amount of the subsistence minimum multiplied by 176.8, the tax rate is 19%,
- if the tax base exceeds the amount of the subsistence minimum multiplied by 176.8, the tax rate is 25%. [10]

Another change contained in the Act No. 595/2003 is the taxation of members of the Government of the Slovak Republic and other state officials by additional tax rate of 5%. [10]

In the area of personal income taxes was introduced applicability of the tax bonus only on the active income. We can say that this is an important instrument of social policy of the state to support individuals or families with children. [10]

Another possible form of negative tax is the employee premium serving to reduce the tax liability of taxpayers - employees from low-income groups. The maximum amount of employee bonus for year 2014 is set at 27.60 €. [10]

5 Results and Discussion

By comparing the possibilities to reduce the tax base and tax liability we can conclude that Act. No. 286/1992 contained many items bringing fairness to the tax system in the form of solidarity. The equivalent to current tax bonus supporting families with children was in 1993 the non-taxable part of tax base on the dependent child. It reduced the tax base, which is different from the current tax bonus lowering tax liability. Reduction of the tax base, which in today's tax system does not have a corresponding equivalent, was partial reimbursement to the employee transportation between home and the workplace.

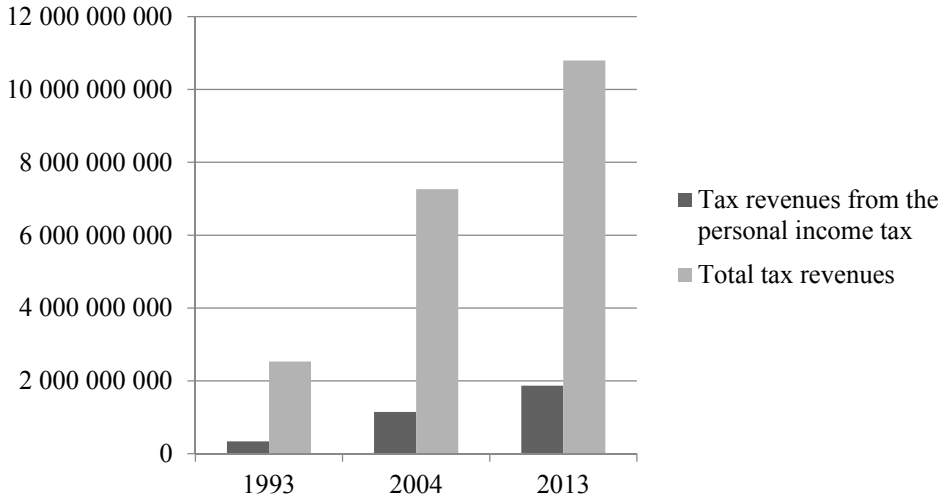
Act. No. 595/2003 from 2004 contained at least items reducing the tax base. Non-taxable part of tax base on the taxpayer and on the wife (husband) was applicable for taxpayers without income restrictions. To support families with children was applied tax credit.

The current Act. No. 595/2003 added into the tax system the possibility of applying non-taxable part of tax base supporting contributing to retirement savings. Possibility to apply non-taxable part of tax base on the taxpayer and on wife (husband) depends on the level of taxpayer's income. As a result of these limits is visible sociality of tax system. Sociality is manifested by the employee premium, too.

The introduction of progressive taxation brings sociality and solidarity into the tax system. It aims to support taxpayers from low income groups and allows higher income redistribution. From the behavioral point of view, the progressive taxation leads to an increased need to perform strict control in the tax area, causing increasing cost related to tax administration. Ultimately, tax revenue is not as high as expected.

On the chart below, we visualized overview of the changes in the amount of revenue from personal income tax and the amount of total tax revenues in the reporting years 1993, 2004 and 2013.

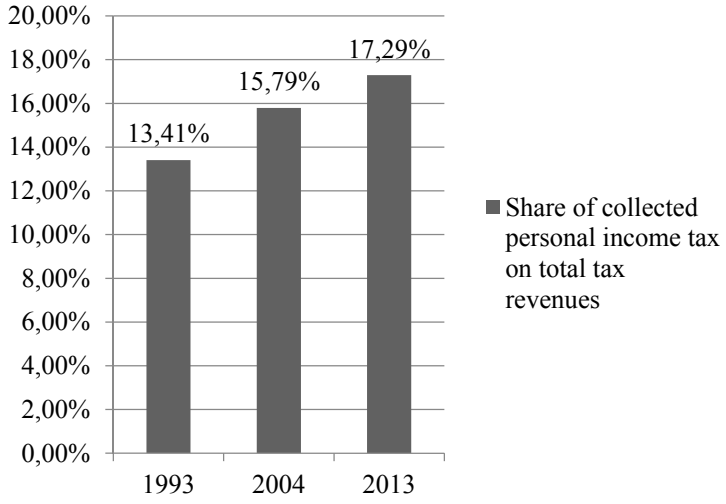
Figure 1 Tax revenues in 1993, 2004, 2013



Source: author's processing [11]

Changes in the share of revenue from personal income tax on the amount of total tax revenues for the years 1993, 2004 and 2013, we present in the following chart.

Figure 2 Share of collected personal income tax in total tax revenues in 1993, 2004 and 2013



Source: author's processing [11]

6 Conclusions

Based on the identified data is visible increase in the share of revenue from personal income tax on the amount of total tax revenue. In our opinion, the increase is caused by decrease in

legal ways to reduce tax liability, thus achieving simplification and greater transparency in collecting of personal income tax. A marked difference between 1993 and 2004 may be caused by simplification of the tax system by removing too much exempted incomes and non-taxable parts of tax base.

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LIABILITIES AND RISK IN THE BANKING SECTOR

Jan KRAJÍČEK[1]

Bohuslava DOLÁKOVÁ[2]

[1] Masaryk University, Faculty of Economics and Administration, Department of Finance, Lipová 41 a, Brno, 602 00, Czech Republic, e-mail: krajicek@econ.muni.cz

[2] Masaryk University, Faculty of Economics and Administration, Department of Finance, Lipová 41 a, Brno, 602 00, Czech Republic, e-mail: 175975@mail.muni.cz

ABSTRACT

The paper focuses on analyzing the relationship between the growth of liabilities in the banking sector and the risk in lending. The increase in liabilities in the banking sector is reflected in pressure on senior bank management, with the need to find new investment opportunities, changes are made to the risks, even if it is inconsistent with the principles of the banking business.

Keywords: Liabilities, Monetary Aggregates, Rates, Risk

JEL codes: C15, E43, G21

1 Introduction to the issue of bank assets and liabilities

Management of assets and liabilities form the crux of bank management and is an essential part of the financial management of the bank. It's a way to control the structure of bank balance sheets, which is an overview of the Bank's assets and the sources of its funding. Management of assets and liabilities refers to the bank as a whole. The bank always acts in the space defined by the central bank, and must respect its actions in terms of prudent banking and monetary policy.

2 Review of literature relating to management of assets and liabilities in the banking sector

The paper comes from the impact of non-cash payments, which is in line with the monetary policy of the European Union. In essence, however, an increase in deposits and total assets in the financial and banking sector in particular.

When cashless payment remains above liabilities in the financial sector unchanged. Payments to clients of the financial sector are for him balancing neutral. If payments are made by the clients of a financial institution so are her balancing neutral. Because well as among clients of different financial institutions.

Despite its indisputable advantages of cashless payments and its risks, which are associated with its development. The following analysis is the issue of security of non-cash payments, but its impact on the total assets in the banking sector, followed by projecting the growth in total assets in the banking sector. The increase in total assets has an impact not only in its development, but subsequently mainly to interest rates. Bank's management is personally involved and put client deposits into yield assets.

Positive impacts:

- Reducing the cost of financing government debt.
- Relatively easier access to funding for natural and legal persons.
- Pressures on bank clients to realize their savings in the capital market.

Negative impacts:

- The pressure on management in the banking sector to investment funds.
- Reduced sensitivity to risk in lending and capital market investments.
- Lower yields on deposits for natural and legal persons.

For banks is therefore imperative to focus mainly on the management of liabilities, assets and bank balance sheets.

Although it is necessary to understand the management of assets and liabilities as a whole, the management of liabilities has its own rules and peculiarities, by analogy asset management.

Management of bank liabilities

Its purpose is to gain resources while respecting the principle that the cost of obtaining resources should be minimized and principles at least partial alignment requirements of the asset side with the party liabilities in terms of their maturity deadline overs, interest rates and their sensitivity. Fundraising is in the bank active process supported by marketing measures. Each bank has its specific resources. Bank of them are total source for their business in a structure with respect to the assets side, the current market situation, resources, assessment in terms of risk and the costs, or from other aspects.

Management of bank liabilities is important not only from the position of the profit motive sourcing the lowest cost and with the longest possible their use, but also with regard to the problem of bank liquidity [1].

Management of bank assets

Its aim is to use the acquired financial resources so that revenues were at an appropriate risk reduction as high as possible while it is necessary to take into account the liabilities in terms of maturity, deadlines overs, etc.

When creating the structure of bank assets is necessary to comply with two basic goals - profitability of banks on the basis profitably used resources and the stability of banks on the basis of risk management.

Compared with other firms, the share of equity to total liabilities is relatively low, the banks in their activities is widely used by foreign capital. Bank's balance sheet has considerable explanatory power, based on its analysis; we estimate the orientation of the bank, its strength and "health".

The balance sheet of the mouth of a business plan and strategy of the bank. Recently seen growth in bank vulnerability. Banks, because of growing competition trying to carefully divide acquired resources - between different clients, products, markets. Growing competition forces the creation of new products and options, while significantly increasing the number of participants in the market. The result is better decision-making and management of banks, which contribute the latest theoretical knowledge and experience.

Asset and liability management in banks is strongly developed in particular from 80-ies 20-th century. Until the 50s of last century, banks had a passive approach to fundraising; deposits

obtained are then borrowed a loan or invest on a conservative basis. The main emphasis was on the assets side, the management of the business banking portfolio.

Management of assets and liabilities refers to the bank as a whole. Bank to manage bank risk diversification, risk-border specifying the lower and upper volume boundaries, while respecting the criteria of profitability and bank profitability. In Management of assets and liabilities bank always acts in the space defined by the central bank, and must respect its actions in terms of prudent banking and monetary policy [1].

3 Analysis impacts balance sum and clients deposits in banking sector and his risk

Methodology

In this research we draw mainly of the following methods.

Positivist research methodology, followed by the methodology of pragmatism. Basis is methodology on date analysis. Following methods are the methodology of critical rationalism, followed by economic and statistical methods to evaluate lessons learned using data CNB.

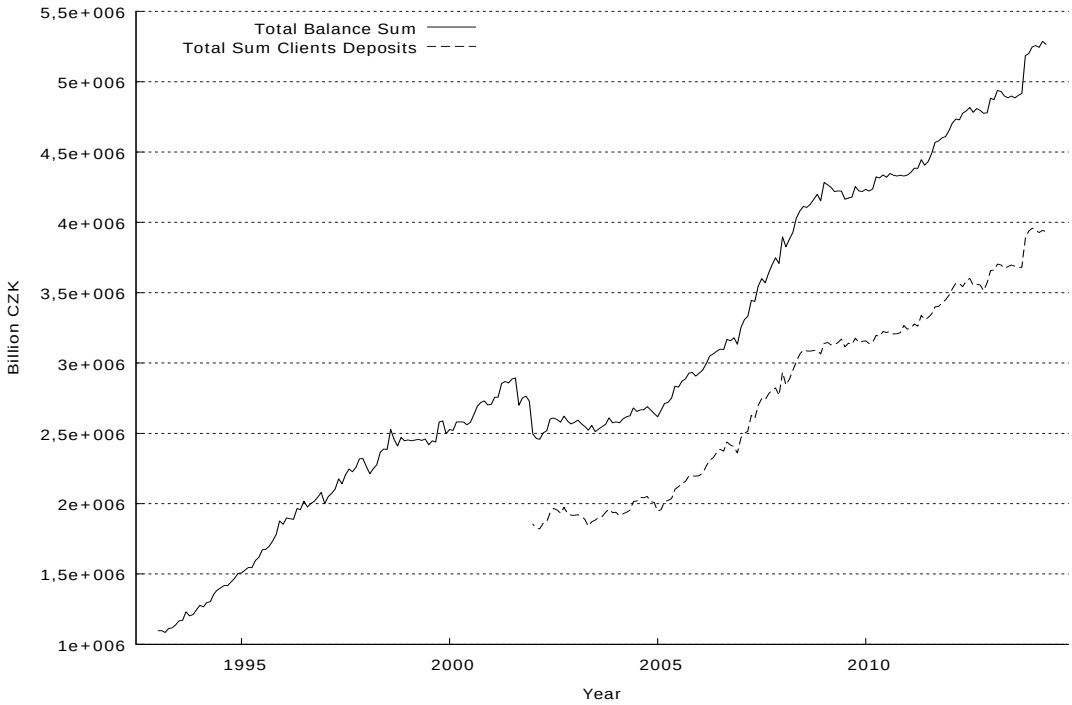
Using data

The analysis used data exclusively CNB show a high degree of precision and serves as the basis of analysis of the banking sector in the Czech Republic.

The basis of the analysis is the following relationship in the development of balance sheet total of the banking sector, depending on client deposits. Because especially in the Czech Republic, where it is not customary to invest in capital markets, but the savings are realized mainly through deposits in banks. Analysis of the impact of growth in customer deposit shows their influence on other indicators that influence the development of the banking sector.

3.1 Simulation dependent Balance Sum of banks and customer deposits

Figure 1 Development Balance Sum of banks and customer deposits



Source: Own processing software Gretl using data [2]

Simulation 1 Dependent variable; Balance Sum

OLS, Observation 2002:01-2014:05 (T = 149)

	Coefficient	*Decisive error*	*t-quotient*	*p-value*	
constant	96884,5	27344,2	3,5432	0,000053	***
Sum Clients Deposit	1,51557	0,0111243	136,2393	<0,00001	***

Medium value dependent variable	3712150	Decisive divergence dependent variable	80541,20
Sum quadrate residue	9,54e+11	Decisive divergence regression	0,992089
Ratio determination	0,992142	Sight ratio determination	1,3e-156
F(5, 149)	18561,14	P-value(F)	3791,194
Logarithm believability	-1893,597	Akaiko criterion	3793,635
Schwarz criterion	3797,202	Hannan-Quinn criterion	0,256451
rho (ratio autocorrelation)	0,855090	Durbin-Watson statistics	80541,20

Source: Own processing software Gretl using data [2]

Previous graphical representation together with a mathematical model shows the dependence of the growth balance sheet total of the banking sector on client deposits. Dependence of balance sheet total in client deposits is expressed as follows.

$$BS = 96884{,}5 + 1{,}51557 * \text{SCD} \quad (1)$$

Legend:

BS – Balance Sum

SCD – Sum Clients Deposit

3.2 Development of some parameters of the banking sector

The following tables document the development of critical parameters of the banking sector over the last 12 years.

In particular, the share of customer deposits to total deposits in banks in the Czech Republic, which rose from 79% in 2002 to 87% in 2014, documenting suitability of using client deposits as indicators for analysis.

Table 1 Development some parameters in the banking sector (in the Million and %)

Parameters	To 31.1.2002	To 31.5.2014	Growth of in %
Total deposits	1 854 561,9	3 933 260,1	112,1
Deposits from banks	388 571,8	520 207,9	33,9
Deposits from clients	1 464 701,2	3 413 050,8	133,0
Deposits from the CNB	1 288,9	1,3	-99,9

Total loans and credits	1 836 891,9	3 712 539,0	102,1
Loans and credits to banks	550 450,9	463 144,8	-15,9
Loans and credits to clients	925 973,1	2 536 200,8	173,9
Loans, credits and deposits to CNB	360 467,9	713 193,4	97,9

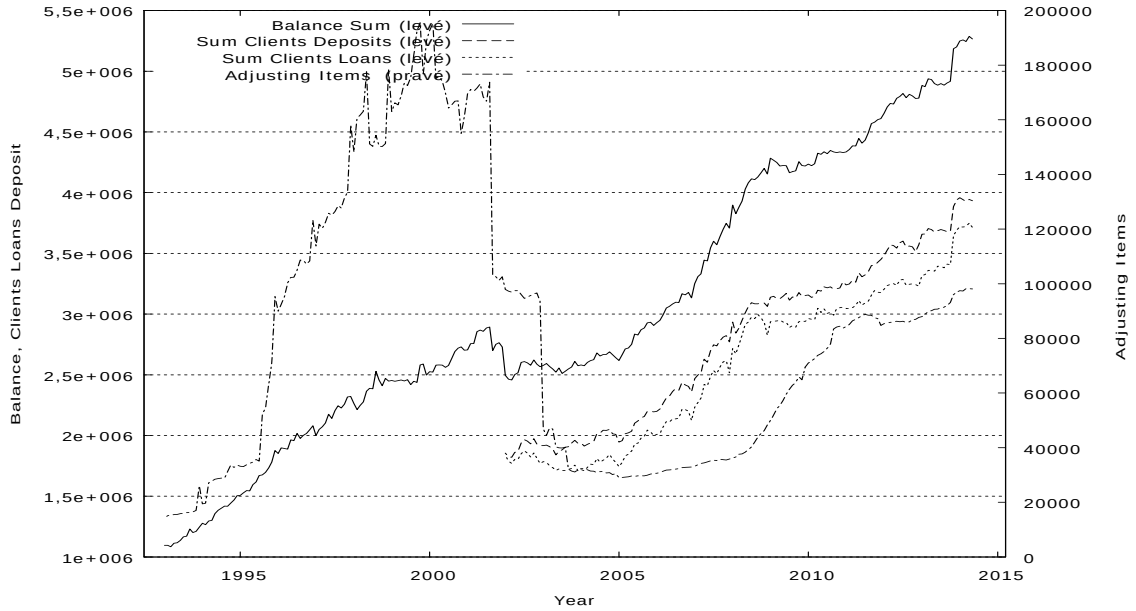
Source: Own processing software Gretl using data [2]

Table 2 Development some parameters in the banking sector (in %)

Parameters	To 31.1.2002	To 31.5.2014	Growth of
Share credits and loans to deposits – total	99,0	94,4	-4,6
Share credits and loans to deposits – other banks	141,7	89,0	-52,7
Share credits and loans to deposits – clients	63,2	74,3	11,1
Share credits and loans to deposits – balance sheet total	74,3	74,7	0,4

Source: Own processing software Gretl using data [2]

3.3. Development bank risk



Source: Own processing software Gretl using data [2]

Simulation 2 Dependent variable: Adjusting Items

OLS, Observation 2002:01-2014:05 (T = 149)

	Coefficient	*Decisive error*	*t-quotient*	*p-value*	
constant	-11406,4	7147,65	-1,5958	0,11271	
Sum Clients Deposit	-0,151332	0,0323057	-4,6844	<0,00001	***
Sum Clients Loans and Credits	0,0239856	0,035215	0,6811	0,49688	
Balance Sum	0,0998899	0,0374014	2,6708	0,00843	***

Medium value dependent variable	60168,82	Decisive divergence dependent variable	26558,11
Sum quadrate residue	5,59e+10	Decisive divergence regression	19639,33
Ratio determination	0,464246	Sight ratio determination	0,453162
F(5, 257)	41,88226	P-value(F)	1,48e-19
Logarithm believability	-1682,303	Akaiko criterion	3372,605
Schwarz criterion	3384,621	Hannan-Quinn criterion	3377,487
rho (ratio autocorrelation)	0,942050	Durbin-Watson statistics	0,092417

Source: Own processing software Gretl using data [2]

$$AI = -11406{,}4 - 0{,}151332 * \text{SCD} + 0{,}0239856 * \text{SCL} + 0{,}0998899 * \text{BS} \quad (2)$$

Legend:

AI – Adjusting Items

SCD – Sum Clients Deposits

SCL – Sum Clients Loans and Credits

BS – Balance Sum

For a graphical representation of the development of total assets, customer deposits and loans, Adjusting Items and subsequent simulation results interdependence Adjusting Items in particular the development of total assets, customer deposits and loans. Adjusting Items in principle follow the evolution loans in default. Time series evolution loans in default are not available and therefore is used Adjusting Items.

Mathematical simulation of the document presumption referred to in the introduction that the growth in total assets and deposits is associated with the growth of credit, which essentially replicates their trends. Management of banks trying to resources that clients are held in the accounts and invest the most ideal option for them is lending.

Quality credit opportunities are limited, and therefore management of banks undergoing increased risk loans.

The overall development in the Czech Republic, reflecting the crisis in the financial markets in Years 1998 and 1999. After the unwinding of banks significantly reduce Adjusting Items and

their growth is linked to reactivate confidence in the banking sector after 2003 and subsequent financial and economic crisis started in Year, 2008.

4 Results and Discussion

Management of assets and liabilities form the crux of bank management and is an essential part of the financial management of the bank. It's a way to control the structure of bank balance sheets, which are an overview of the Bank's assets and the sources of its funding. Financial institutions must manage its balance especially in relation to the defined needs and goals. Uncontrolled development of total assets affected mainly by client deposits has resulted in the need for the resulting cash resources to invest. Critical opportunities for banks are their investment through loans and credits. The lack of quality options for lending has as its consequence the deteriorating quality of their loan and credit portfolios.

It is also the basis for discussion, to which the contribution is going.

5 Conclusions

Mathematical simulation of the document presumption referred to in the introduction that the growth in total assets and deposits is associated with the growth of credit, which essentially replicates their trends. Management of banks trying to resources that clients are held in the accounts and invest the most ideal option for them is lending.

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BUDGETARY DEFICITS AND PUBLIC DEBT IN THE CZECH REPUBLIC

Eva LAJTKEPOVÁ[1]

[1] Brno University of Technology, Faculty of Business and Management, Department of Finance, Kolejní 4, 612 00 Brno, Czech Republic, e-mail: lajtkepova@fbm.vutbr.cz

ABSTRACT

The paper deals with history and perspectives of budgetary deficits and public debt in the Czech Republic. It describes causes of indebtedness, influence of political orientation of government and context of economic growth. The aim of this article is to present public debt as one of economic and also moral problems of the Czech Republic.

Keywords: GDP**,** budgetary deficit, public debt, state budget

JEL codes: H62, H63, H68

1 Introduction

Although the evaluation of the consequences of budgetary deficits and public debt is subject to a long theoretical discussion with very divergent views, public debt is already a normal part of economic life in all developed countries. The requirement that when a state is not drawn into a war it should keep a balanced budget (i.e. to reasonably adapt spendings to income, primarily tax income) is an old, and for many even an amusing history. Regardless of the political views and the background of the corresponding economic theory, governments are greatly tempted to increase spending without regard to the economic reality and near or more distant future.

Twenty years of independent existence of the Czech Republic already gives the opportunity of a sufficiently long time series to evaluate the economic management of the state. Let's see how the debt of the Czech Republic developed in this period, what causes led to it and what threat can result from the existing trend in the growth of public debt in the future.

2 Opinions of Budgetary Deficits

Evaluation of the consequences of budgetary deficits (in particular the state budget) is a relatively contentious issue, of which there are various, often contradictory opinions. A truly objective evaluation of all consequences (purely budgetary and fiscal) is also prevented by political views which influence the debate.

However, the budgetary consequences of deficits do not produce such contradictory opinions. In the short term, they are even generally considered rather positive (due to the softening of the government's budget constraint), in the long term they are usually assessed cautiously or negatively (due to the effects either on the growing interest burden and/or inflationary pressures).

Mainly opinions of fiscal consequences of the budgetary deficit are not uniform – in principle, they vary by individual streams of economic theory. E.g. advocates of Keynesian macroeconomics see macroeconomic consequences of the deficit positively under certain conditions and recommend it (however, it is often forgotten that these economists also recommend that in other periods a budgetary surplus should be achieved and thus the deficits

and surpluses offset in the long term) [3], [5], conservative economists reject deficits and they see its consequences unambiguously as negative [2]. It is rather interesting that these completely different opinions have coexisted for quite a long time, without any of them being definitively confirmed or rejected by empirical research [5].

In all cases, individual authors point out the diverse impact of budgetary deficits on the economy: e.g. Stieglitz points out [6: 783] its effect on reducing consumption of future generations, Dvořák [1: 66] warns, among other things, of the dangers of the growing debt burden.

3 Development of Budgetary Deficits

In the Czech Republic and other EU member states, two basic methods of the calculation methodology of the state budgetary deficit and public debt are used (see below): methodology of the government financial statistics of the International Monetary Fund (GFSM 1986, or GFS 2001 respectively) and the methodology of the European Statistical Office (ESA 95).

The Ministry of Finance of the Czech Republic is responsible for reporting deficit in the methodology of the International Monetary Fund. The advantage of this methodology is time availability of data in a relatively short time after the end of the monitored period and lower demands for the necessary data. It has a direct link to the state budget, other public budgets and the budgets of state extra-budgetary funds. The new GFS 2001 methodology works not only on the basis of cash flows - all operations of the current year are reported on a cash basis, i.e. at the moment when the relevant income (or expenditure) operation is performed, but also on an accrual basis (it thereby differs from its previous version GFSM 1986, which worked only on a cash flow basis).

The Eurostat methodology, i.e. ESA 95, is used to calculate the Maastricht criteria. The Czech Statistical Office is responsible for compliance with this standard, even though the Ministry of Finance of the Czech Republic provides it with a large portion of the input data. For the submission of data on economic management of the government sector to the authorities of the European Union, the Czech Republic is obliged to report results using this methodology.

Development of the state budgetary balance in the twenty-year history of the Czech Republic in several different periods (see Table 3.1).

In the first period after the formation of the separate state, the state budget was composed and approved as balanced (Prime Minister Václav Klaus even tried to legally establish a balanced state budget, which he failed to do despite considerable pressure), and the actual balance was even slightly positive. This period ends in 1996 when the state budget showed a very slight deficit for the first time.

In the following two years (1997 – 1998), the state budget was still designed as balanced, but this balance was never observed. However, budgetary deficits were still low, but rather due to extraordinary income, e.g. from privatization, etc., which was then never repeated in the subsequent years, rather than due to prudent overall economy.

Table 3.1 Development of Actual and Enacted State Budgetary Deficits (in billion CZK)

Year	Enacted Balance	Actual Balance	Prime Minister
1993	0	+4.7	Klaus
1994	0	+14.8	
1995	0	+7.2	
1996	0	-1.6	
1997	0	-15.7	Tošovský
1998	0	-29.3	Zeman
1999	-31.0	-29.6	
2000	-35.2	-46.1	
2001	-48.9	-67.7	
2002	-46.2	-45.7	Špidla
2003	-111.3	-109.1	Gross
2004	-114.9	-93.7	
2005	-83.6	-56.3	Paroubek
2006	-74.4	-97.5	
2007	-91.3	-66.4	Topolánek
2008	-70.8	-20.0	
2009	-38.1	-192.4	Fischer
2010	-162.7	-156.4	Nečas
2011	-135.0	-142.8	
2012	-105.0	-101.0	
2013	-100.0	-81.0	Rusnok

Source: [7], [8]

In 1998, the government changed after the elections to the Chamber of Deputies of the Parliament of the Czech Republic (after the fall of the government of V. Klaus and a short-term caretaker government of Tošovský), the state budget was no longer planned as balanced, instead it was prepared and approved with a deficit. It is also a period of economic decline and the Prime Minister M. Zeman tried (as a follower of Keynes's ideas) to use deficit spending to revive the economy ("push the economy off the bottom"). The state budgetary deficits in this period pretty much reached the planned (enacted) values and did not exceed CZK 50 billion (except in 2001).

The period from 2003 is characterized by a rapid growth in deficits, both planned and actual. Especially before the elections to the Chamber of Deputies in 2006, the government's effort to attract potential voters through the rapidly increasing transfer payments, especially in the form of various social benefits, is characteristic. This increase in spending led to a high deficit in 2006 (the actual deficit was by more than CZK 20 billion greater than the planned deficit) and especially to the growth in the proportion of the mandatory spending in total spending from the state budget. It was very alarming that these high actual budgetary deficits were achieved in a period of exceptionally high economic growth rates (e.g. in 2005, the annual real GDP growth rate reached 6.8 %, in 2007 it was 7.0 % [7],), and thus even high tax revenue, when a reduction in deficits, or a creation of a certain budgetary surplus can be expected and is highly desirable.

In 2008, the economic boom was finishing, the enacted deficit was lower than in the previous year, the actual deficit is then even the lowest in the last ten years. The upcoming state budget for the following year (i.e. flow of 2009) was approved with a relatively low deficit despite the early warning signals of the emerging global financial crisis. In 2009, the reality is completely different – significant decline in gross domestic product and the largest difference between the enacted and the actual state budgetary deficit in the history of the Czech Republic.

From 2010, the state budget of the Czech Republic already had a large deficit (planned and actual): every year the question was only how high the actual budget would be, and whether the Czech Republic would or would not meet the Maastricht criterion of the proportion of the budgetary deficit up to 3 % of gross domestic product. In addition, the situation was complicated by the economic downturn and the longest period of recession in the last quarter century. Only in the last period (from winter/spring 2013/2014) there was an economic recovery, better collection of tax revenues and perhaps even better prospects for a gradual reduction in the high budget ary deficit. However, returning to a balanced state budget is rather unrealistic, it is not even included in the priority objectives of the new government of Prime Minister Sobotka. A reduction of the state budgetary deficit below 3 % of GDP, i.e. repeated fulfilment of the Maastricht criterion, would be considered a great success [4: 101].

4 Development of Public Debt

During its history, the Czech Republic went through various time periods when its public debt was growing at a different pace, but mainly it was increasing for various reasons.

At the formation of the independent state, the Czech Republic took over a debt of CZK 164 billion CZK (of which internal debt accounted for about CZK 92 billion, external debt for about CZK 72 billion).

A characteristic feature of indebtedness of the Czech Republic in the 1990s were relatively low budgetary deficits (see above), but high and mainly not always transparent government debts outside the state budget. A large part of the debt was accumulated in the Consolidation Bank - Konsolidační banka (later since September 2001 in the Czech Consolidation Agency - Česká konsolidační agentura as the successor of the Konsolidační banka), which was basically used as a repository for problems of commercial banks and industrial enterprises, in its subsidiaries (e.g. Česká finanční, Česká inkasní) and in the National Property Fund (which partially funded the Czech Consolidation Agency, and at the same time it had its own costs, e.g. for the removal of environmental damage in former state-owned enterprises). In essence, it was a takeover of private and semiprivate debt by the state (see also [1]). These facts have not yet been sufficiently quantified, and their morally devastating impact on the economic environment of the country has not been even assessed (unequal conditions for business, and often even "before the law"). Another form of potential debt was the financing of government programs by high-risk guarantees without the creation of adequate provisions (this applied to both the guarantees issued by the Ministry of Finance of the Czech Republic as well as other institutions, especially the National Property Fund).

In 2001, there was a change in the reporting of debts – while debts hidden until then (e.g. classified loans taken over by the Consolidation Bank) were passed directly into the public debt, from 2001 new chapters of the state budget were established (State Debt and State Financial Assets Operations) and these debts must first pass through the state budget. Therefore, they became visible a little earlier in the form of budgetary deficit, and they are more transparent. At the same time, an overview of state guarantees was included in the budget documentation for meetings of the Parliament of the Czech Republic.

If we evaluate the actual amount of the public (or state as more often reported in statistics) debt, or its share in GDP, the Czech Republic is not yet, even if compared internationally, in a situation that would require absolutely drastic austerity measures and international aid. The Czech Republic still fulfils one of the fiscal Maastricht criteria (maximum 60% share of debt in GDP) without any problems, compared to the majority of European Union member states the share of the state debt in GDP is relatively favourable. However, the rate of rise in debt is

alarming: while in many countries the current debt was accumulated for several decades, the Czech Republic reached this – already comparable amount with many countries – during its relatively short history. Although it was not a completely economically standard period (transformation of the economy, privatization, etc.) and the rapid growth was probably inevitable. Especially in periods of rapid economic growth, when the annual gross domestic product grew by up to 4 – 6 % (2003 – 2007), this rapid growth of debt is not economically justified.

Table 4.1 Development of State Debt (in billion CZK)

Year	State Debt
1994	157.3
1996	155.2
1998	194.7
2000	289.3
2002	395.9
2004	592.9
2006	802.5
2008	999.8
2010	1,344.1
2011	1,499.4
2012	1,667.6
2013	1,683.3

Source: [8]

The debt of the Czech Republic is typically characterized by two distinctive features:

- High securitisation,
- Excess of internal (domestic) debt over external debt (foreign).

The domestic debt is currently covered by state treasury bills, medium and long-term bonds and government savings bonds. Other sources are negligible in the volume. The foreign debt is mainly covered by foreign bond issues and loans from the European Investment Bank.

Table 4.2 Structure of State Debt (in billion CZK)

	1995	2000	2005	2012	2014
Total debt	154.4	289.3	691.2	1,667.6	1,683.4
Internal debt	101.2	269.6	581.8	1,287.3	1,341.0
External debt	53.1	19.7	109.4	380.3	342.3

Source: [8]

In terms of the composition of the holders of government bonds, about 60 % of them belong to financial institutions: monetary financial institutions, insurance companies, pension funds etc. Compared to other countries, the rarity is still a small share of the debt owned by the household sector – just over 4.5 % (all data from June 2014 [8]).

If we divided the debt by merchantability in financial markets, the marketable debt consists mainly of government treasury bills and medium-term and long-term bonds. Non-marketable debt is currently only external debt (until 1998 non-marketable debt was also part of the internal debt). External non-marketable debt consists primarily of bank loans from the European Investment Bank, crown bills have only little meaning for payment of participation in the International Bank for Reconstruction and Development [8].

5 Conclusion

Possible solutions to the problem of public debt in the future are limited, the dangers resulting from increasing the debt are growing. First of all, it is the classic debt trap where the rising interest on debt exceeds the rate of economic growth in the long term. The costs of servising the state debt grow very rapidly, an amount of CZK 65.8 billion had to be allocated to it in the approved state budget for 2014 [8]. We can, of course, see this amount so that these funds cannot be spent on investments that would bring greater competitiveness to the Czech Republic in the future – in education, science, research, etc., but not even for other purposes (health, transport infrastructure etc.).

Another big danger is a burden on the spending side of public budgets in the distant future. The maturity of many bond issues is indeed very long (50 years), but it is still a commitment for the future. It is necessary to expect instalments in the future years, i.e. these amounts again cannot be used for a more meaningful purpose. It is therefore entirely appropriate to recommend fiscal prudence and responsibility that should be respected by the successive governments.

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EVALUATING THE DETERMINANTS OF LONG-TERM SOVEREIGN RATING IN NEW MEMBER STATES OF THE EUROPEAN UNION

Emilian-Constantin MIRICESCU[1]

[1] Bucharest University of Economic Studies, Faculty of Finance, Insurance, Banking and Stock Exchange, Department of Finance, 6 Piata Romana, Bucharest, 010374, Romania, e-mail: emilian.miricescu@fin.ase.ro

ABSTRACT

In recent years the majority of countries in the European Union (EU) experienced government debt to GDP ratio exceeding the Maastricht criteria. This paper investigates the determinants of long-run sovereign rating, using a database having both quantitative and also qualitative indicators. The paper used a panel data analysis in order to identify an analytical model for quantifying long-run sovereign rating. Thus, the research has enhanced applicability for public policy decision makers, as they have specific indicators to improve in order to increase sovereign rating. The importance of sovereign rating is fundamental because it has a negative influence on bonds' interest rate, as previous studies emphasized. Dependent variable is long-term sovereign rating, assigned by credit rating agency Standard & Poor's. The study focuses only on new member states that joined the EU after 2000.

Keywords: long-term sovereign rating, panel data analysis, new member states

JEL codes: F34, G15

1 Introduction

The importance of sovereign ratings increased sharply over the last four decades, as Standard & Poor's assigned ratings in the '70 only to 12 developed countries, and Standard & Poor's assigned ratings in 2014 to 129 developed and developing countries. Sovereign rating is a condensed assessment of a government's ability and willingness to repay its public debt both in principal and in interests on time [1]. According to this definition, the payment of principal and in interests on time must take into consideration two problems: (i) government's ability, that depend on economic performances, and (ii) government's willingness, that depend on public decision makers.

The rating agencies play a key role in financial markets by helping to reduce the informative asymmetry between lenders and investors, on one side, and issuers on the other side, about the creditworthiness of companies or countries [8].

The three biggest rating agencies (Standard & Poor's, Moody's and Fitch) cover approximately 95% of the world market, and smaller rating agencies make up the remaining part [9]. Until 7 November 2014, The European Securities and Markets Authority registered or certified 39 rating agencies, from which 16 are branches of global rating agencies [10]. The number of rating agencies Nationally Recognized Statistical Rating Organizations increased to 10, in the US [5].

New member states joined the EU: (i) in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic and Slovenia); in 2007 (Bulgaria and Romania) and in 2013 Croatia.

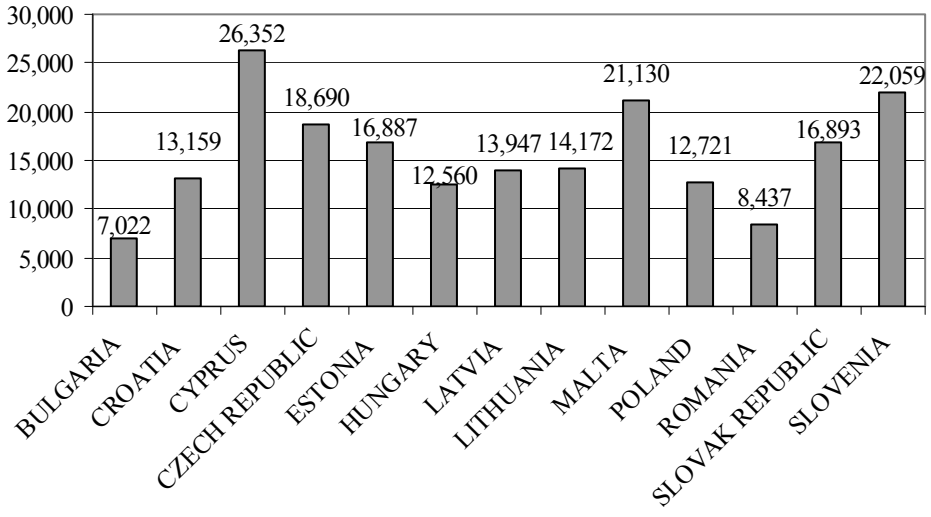
The paper is organised as follows: Section 2 reviews the literature regarding the determinants of sovereign rating, Section 3 explains database and research methodology, Section 4 analyzes the determinants of long-term sovereign rating for 13 new member states of the EU and Section 5 concludes.

2 Literature Review

There is a rich body of literature that analysed the determinants of sovereign rating. From the specific financial literature [7]; [12]; [3]; [6]; [2]; [4], this study selected determinants of long-run sovereign rating, both quantitative indicators, and also qualitative indicators. As quantitative indicators papers indicate: fiscal balance, GDP growth rate, GDP per capita, inflation rate, external debt, unemployment, import to export, and all that. As qualitative indicators papers indicate: corruption, political stability, government effectiveness, voice and accountability, and all that.

GDP per capita is one of the most homogeneous indicators in the assessment for determining sovereign rating, as for AAA countries it is more than 20,000 USD [11]. The expectation is that GDP per capita have a positive impact on sovereign rating. From new member states, in 2012, the minimum GDP per capita was in Bulgaria (7,022 USD) and the maximum GDP per capita was in Cyprus (26,352 USD), according to Figure 1.

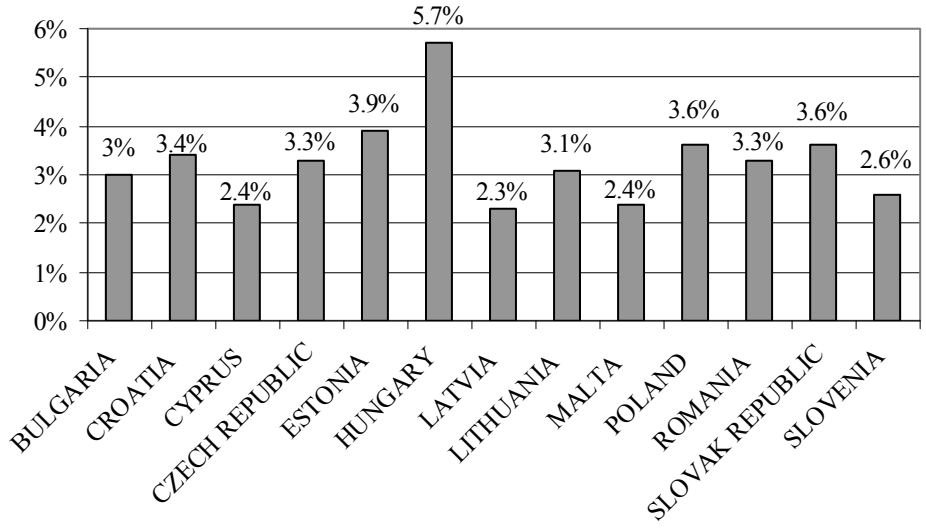
Figure 1 GDP per capita (USD)



Source: Our results based on data provided by World Bank

Inflation rate indicate problems at the macroeconomic policy level, especially if caused by monetary financing of deficits [1]. The expectation is that inflation rate has a negative impact on sovereign rating. From new member states, in 2012, the minimum inflation rate was in Latvia (2.3%) and the maximum inflation rate was in Hungary (5.7%), according to Figure 2.

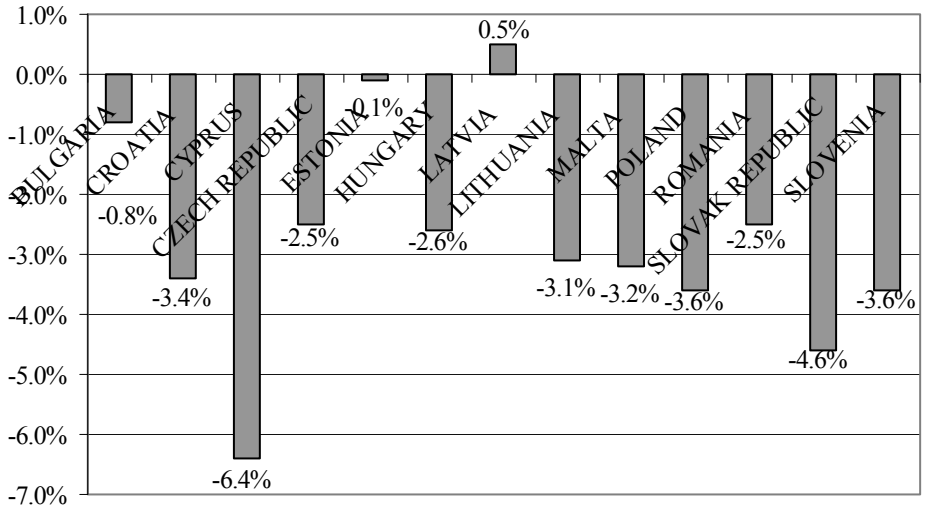
Figure 2 Inflation rate



Source: Our results based on data provided by World Bank

Large fiscal deficits absorb domestic savings and also suggest macroeconomic disequilibria, negatively affecting the rating level [1]. The expectation is that fiscal balance has a positive impact on sovereign rating. From new member states, in 2012, the minimum fiscal balance was in Cyprus (-6.4%) and the maximum fiscal balance was in Latvia (0.5%), according to Figure 3.

Figure 3 Cash surplus/deficit (% of GDP)



Source: Our results based on data provided by World Bank

3 Data and Methodology

This study will be developed on annual data over the period 2004-2012 for 13 countries that joined the EU after 2000. The econometric method applied in this analysis is the regression. The dependent variable is long-term sovereign rating (Rating) assigned by global credit rating agency Standard & Poor's. During the period 2004-2012, the ratings of these countries are from

AA to CCC+. The linear transformation was the first stage in transforming long-term sovereign rating in a quantitative variable (table 1).

Table 1 Linear transformation

Rating	**AA**	**AA-**	**A+**	**A**	**A-**	**BBB+**	**BBB**	**BBB-**
Transformation	15	14	13	12	11	10	9	8
Rating	**BB+**	**BB**	**BB-**	**B+**	**B**	**B-**	**CCC+**	
Transformation	7	6	5	4	3	2	1	

Source: Our results based on data provided by Standard & Poor's

The second stage in transforming long-term sovereign rating was the applying of logistic transformation [1].

The study analysed six possible determinants of long-term sovereign rating in new member states of the EU. All data for independent variables are published by World Bank, excepting Corruption Perceptions Index published by Transparency International. Independent quantitative variables and their expected impact on sovereign rating are presented in table 2.

Table 2 Quantitative variables

Variable	**Expected impact**
GDP per capita (USD)	+
Inflation rate (%)	–
Cash surplus/deficit (% of GDP)	+

Source: Our results based on financial literature

Independent qualitative variables and their expected impact on long-term sovereign rating are presented in table 3.

Table 3 Qualitative variables

Variable	**Expected impact**
Corruption Perceptions Index (0 to 100)	+
Government Effectiveness (-2.5 to 2.5)	+
Political Stability and Absence of Violence (-2.5 to 2.5)	+

Source: Our results based on financial literature

4 Results and Discussion

The study analyzed if three quantitative variables and three qualitative variables have an influence on long-run sovereign rating. The study used data panel regression.

For the variables of our model, it was used the test Im, Pesaran, Shin (table 4):

- Transformed sovereign rating series will be stationary by using the difference operator. The 1st difference of transformed sovereign rating series provides a significance level lower than the threshold of 0.1 that indicates stationary series.
- Cash surplus/deficit series will be stationary by using the difference operator. The 2nd difference of cash surplus/deficit series provides a significance level lower than the threshold of 0.1 that indicates stationary series.

- Corruption Perceptions Index series will be stationary by using the difference operator. The 1st difference of Corruption Perceptions Index series provides a significance level lower than the threshold of 0.1 that indicates stationary series.
- Government Effectiveness series will be stationary by using the difference operator. The 2nd difference of Government Effectiveness series provides a significance level lower than the threshold of 0.1 that indicates stationary series.
- The other variables are stationary because the significance level is lower than the threshold of 0.1.

Table 4 Im, Pesaran, Shin panel unit root test

Variable	IPS statistic	Significance level
Rating – level	1.8	0.96
Rating – 1st difference	-2.2	0.02
Ln(GDP per capita) – level	-1.5	0.06
Inflation rate – level	-1.7	0.04
Cash surplus/deficit – level	-0.9	0.18
Cash surplus/deficit – 1st difference	-1	0.16
Cash surplus/deficit – 2nd difference	-2	0.02
Corruption Perceptions Index – level	-1.2	0.12
Corruption Perceptions Index – 1st difference	-2	0.02
Government Effectiveness – level	0.8	0.21
Government Effectiveness – 1st difference	-1.1	0.13
Government Effectiveness – 2nd difference	-4.7	0.00
Political Stability and Absence of Violence – level	-1.6	0.05

Source: Our results

The adjusted explanatory power of 44.46% has the model with all independent variables. The following independent variables: GDP per capita, inflation rate, Corruption Perceptions Index and Government Effectiveness were eliminated from the preliminary regression model.

5 Conclusions

The analysis demonstrated that cash surplus/deficit have a positive influence on transformed sovereign rating and Political Stability and Absence of Violence have a positive influence on transformed sovereign rating. Thus, the study validates the findings from financial literature.

These independent variables have an adjusted explanatory power of 37.07% for transformed sovereign rating, in the final regression model. Public decision makers should improve fiscal balance and Political Stability and Absence of Violence, with the intention of: (i) increase long-term sovereign rating and (ii) decrease public bonds' interest rate.

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IMPACT OF MODIFICATION IN MEASUREMENT METHOD CAB ON CYCLICAL COMPONENT OF BUDGET REVENUES WITH AN EXAMPLE OF THE VISEGRAD GROUP COUNTRIES

Anna MOŹDZIERZ[1]

[1] Cracow University of Economics, Faculty of Finance, Department of Finance, Rakowicka 27, 31-510 Cracow, e-mail: anna.mozdzierz@uek.krakow.pl

ABSTRACT

The purpose of the article is to recognize the impact of the modification introduced by the European Commission in 2013 concerning the method of estimating the cyclically-adjusted budget balance (CAB) on the size of the cyclical component of public revenues of the Visegrad Group countries. The verification of the assumptions resulted in the replacement of the applied sensitivity concept with the semi-elasticity concept. The article recognized the differences in response to public revenues to GDP and its cyclic change in the analyzed countries by using the parameters of sensitivity and semi-elasticity. The research indicates that the change in methodology slightly affected the size of the CAB in the analyzed countries, but significantly affected the cyclical component of revenues. The new method is nearer to the concept of structural balance, but not without limitations, which are indicated in the article.

Keywords: fiscal policy, business cycle, cyclical component of revenues, budgetary semi-elasticities, cyclically-adjusted budget balance

JEL codes: E32, E62, H20

1 Introduction

The main criterion for the assessment of public finances and fiscal policy in the European Union is medium-term objective (MTO), which is a structural balance. Medium-term objectives, on the assumption, are to guarantee the stability of public finances or rapid progress in achieving this stability, at the same time allowing space for leading a budgetary policy, particularly taking into account the needs for public investment [15]. Medium-term objectives are individualized within the range between -1% of GDP deficit and balance or surplus, in cyclically adjusted terms, revised to one-off and temporary measures. The regulation was made more restrictive against EMU countries related to the Fiscal Pact, setting a lower limit of the deficit at 0.5% of GDP. In case when the debt of general government and self-government institutions sector in relation to GDP remains clearly below 60% and at low risk of losing long-term stability of public finances, the lower limit of the medium objective may reach a maximum of 1.0% [17]. The attributed rank to MTO in the system of fiscal surveillance was an impulse for the European Commission in 2012 to verify the methods of estimating this amount, with errors in both revenues and expenditures. The fundamental methodological change was based on the fact that in the concept of structural balance CAB the sensitivity category was replaced with the semi-elasticity category. The weakness of previously used method for estimating CAB was the fat that the impact of the economic cycle on the budget balance was examined, aside from the fact that the economic cycle also affects the size of production. The new method therefore allows to capture the reaction of the budget balance and its components on the cyclical change in GDP.

The purpose of the article is to identify the impact of the change in the method for estimating CAB on the size of the cyclical component of public revenues in the Visegrad Group countries.

2 Literature Review

Two years ago the world literature on extracting the cyclical component of budget revenues and expenditures could be regarded as extensive. The modification of the methodology for estimating CAB by the European Commission coming down to rejecting of accepted at the beginning incorrect assumptions, makes the literature on the subject concerning the introduced changes significantly narrowed. Presently, an article is very significant by Mourre G., Isbasoiu G-M., Paternoster D., Salto M. [12] published by the European Commission in March 2013, which describes the new method. This item is referred to by the authors of other few articles, for example Reiss L. [16], who estimated the structural balance of Austria in such a way.

The modification of the methodology for estimating CAB was essential for the adoption of earlier incorrect assumptions. Estimating the cyclical component of revenues, the fact was omitted that public revenues are a component of GDP. Given that the revenue elasticity is close to unity, the cyclical changes of revenues follow the cyclic GDP. It was contrary in case of the expenditures of which only some are cyclical (unemployment benefits). It was assumed that the expenditure ratio to GDP is relatively stable throughout the cycle [12]. In the view of the fact that the share of public expenditures to GDP in the EU27 is high (in 2012 it amounted to 49.4%) and shows variability regardless of the economic cycle, the estimates had to lead to incorrect results and interpretation. This was mostly evident during the recent financial crisis (economic, fiscal).

Regardless of a slight interest in the subject literature with the effects of a methodological change, it does not mean that the previously used method of extracting the cyclical component was not under theoretical discussion and practical disputes. The charges concern mainly the methods for determining CAB and its components based on potential output, which is an unobservable unit, and therefore unverifiable [1; 2; 11; 13]. Consequently, there is no fully acceptable manner of its determination [10]. The methods of determining potential production recommended in theory and applied in practice can be divided into two groups. The first group contains the methods which rely on the analysis of real production, using statistical filters, of which the most common is the Hödrick-Prescott filter. While the second group consists of methods based on the production function (most frequently the Cobb-Douglas) and the analysis of the production factors use. In the subject literature, in addition to the above methods other methods are also indicated: Blanchard-Quah decomposition, Beveridge-Nelson decomposition, unobservable factors method [9].

Another area of theoretical disputes is connected with the methods for estimating the short-term elasticity of individual budget revenues to GDP, necessary to extract the cyclical component of income. The literature indicates the methods based on linear regression function, taking as the explanatory variables the changes in the tax system, the value of potential GDP and the size of the deviation of GDP from potential output. The econometric macro model can be an alternative that with the help of simulation will assess the impact of the output gap change of 1 percentage point on budget revenues [14].

The review of the subject literature leads to the conclusion that the methodology modified in 2012 requires additional work to improve the quality of basic parameters for assessing the fiscal policy of EU Member States. The measurements subject to errors may lead to excessive sharpening or loosening of fiscal policy, which may cause negative socio-economic consequences.

3 Data and Methodology

The recognition of the effects of modification in the methodology of calculating CAB for the amount of the cyclic component of revenues will be carried out in some stages. The starting point will be a comparative analysis of CAB estimates and the cyclical component of revenues and expenditures made by the European Commission in selected years using the old and new method. Then the decomposition is going to be made of the cyclic component of revenues. The subject of observation will be elasticity, sensitivity and semi-elasticity of revenues. The study was conducted on the example of the Visegrad Group countries in 2004 – 2013. The own estimates of sensitivity and semi-elasticity parameters were carried out on the basis of current data on the share of public revenues in GDP from the decade 2004-2013.

3.1 The cyclical component of public revenues in the Visegrad Group countries

Table 1 presents, on the example of selected years, the differences resulting from the application of the sensitivity and semi-elasticity concept for the size of the balance CAB, component of public revenues and expenditures.

Table 1 Differences in estimates of CAB and the cyclical components of budget revenues and expenditures by using the concept of sensitivity and the concept of semi-elasticity (% of GDP; weights 1995-2004)

	CONCEPT OF											
	SENSITIVITY				SEMI-ELASTICITY				DIFFERENCE			
	2007	2010	2011	2012	2007	2010	2011	2012	2007	2010	2011	2012
	a	b	c	d	e	f	g	h	(e-a)	(f-b)	(g-c)	(h-d)
Cyclical component of public revenues												
Czech Republic	2.4	-0.1	0.1	-0.8	-0.4	0.0	0.0	0.1	-2.8	0.1	-0.1	0.9
Hungary	1.3	-1.6	-0.9	-1.4	0.0	0.0	0.0	0.0	-1.3	1.6	0.9	1.4
Poland	1.0	0.1	0.0	-0.5	-0.2	0.0	0.0	0.0	-1.2	-0.2	0.0	0.6
Slovakia	1.6	-0.1	0.0	0.0	-0.5	0.0	0.0	0.0	-2.1	0.1	0.0	0.0
EU 27	1.2	-0.9	-0.7	-1.0	-0.1	0.1	0.0	0.0	-1.3	1.0	0.7	1.1
Cyclical component of public expenditures												
Czech Republic	-0.1	0.0	0.0	0.0	-3.7	0.2	-0.1	1.2	-3.6	0.2	-0.1	1.2
Hungary	0.0	0.0	0.0	0.0	-1.5	1.8	1.0	1.6	-1.4	1.8	1.0	1.6
Poland	-0.2	0.0	0.0	0.1	-1.5	-0.2	0.0	0.7	-1.3	-0.2	0.0	0.6
Slovakia	-0.1	0.0	0.0	0.0	-2.4	0.1	0.0	0.0	-2.3	0.1	0.0	0.0
EU 27	-0.2	0.1	0.1	0.1	-1.6	1.2	0.8	1.2	-1.4	1.0	0.7	1.1
Cyclically adjusted balance (CAB)												
Czech Republic	-3.2	-4.7	-3.3	-2.7	-4.0	-4.7	-3.4	-2.4	-0.8	0.0	0.0	0.3
Hungary	-6.5	-2.8	5.3	-1.1	-6.6	-2.5	5.4	-0.8	-0.2	0.2	0.1	0.2
Poland	-3.0	-8.0	-5.0	-2.8	-3.2	-8.0	-5.0	-2.8	-0.1	0.0	0.0	0.1
Slovakia	-3.5	-7.6	-4.9	-4.9	-3.7	-7.5	-4.9	-4.9	-0.2	0.0	0.0	0.0
EU 27	-2.3	-5.5	-3.7	-2.5	-2.4	-5.4	-3.7	-2.4	-0.1	0.1	0.0	0.1

Source: European Commission estimates, for: G. Mourre, G-M. Isbasoiu, D. Paternoster, M. Salto (2013), *The cyclically-adjusted budget balance used in the EU fiscal framework: an update,* European Commission Economic Papers No 478, pp. 14-15.

The calculations were made by the Services of the European Commission on the basis of weights for the years 1995 - 2004, and thus used in the observation period and the size of output gaps estimated in the report of the autumn 2012 [4].

The analysis of the data leads to the conclusion that methodological change did not significantly affected the amount of structural balance CAB. In the years 2010 - 2012 for Slovakia it was neutral, and for the rest of the study group it did not exceed 0.3% of GDP. Comparing the results

obtained with both methods, however, there is a noticeable increase in the importance of the cyclical component of expenditures, and a clear weakening of the cyclical component of revenues. The consequences of the introduced change in the period under observation measured by the difference in size of the cyclical revenues component are in the range (-2.8 to 1.6% of GDP) and budget expenditures (-3.6% to 1.8% of GDP). With the example of Slovakia it can be noticed that the cyclical component of revenues measured by a method based on sensitivity amounted to 1.6% of GDP in 2007, and by using semi- elasticity -0.5% of GDP. In turn, the cyclical component of expenditures measured by the first method amounted to -0.1% of GDP, according to the second -2.4% of GDP. The estimates presented in table 1 help in noticing the amount of the error made in consequence of incorrect basic assumptions.

The basis for further analysis will be the data of the last - at the moment of writing the article – The EC report from spring 2014 [5]. Table 2 provides information on the development of the cyclical components of public revenues in the Visegrad Group countries, together with estimates of the output gap, on the basis of which they were extracted. The EC used in the calculations the updated amounts calculated on the basis of the years 2002-2011. Excluding three observations it can be established that in the surveyed countries in the years 2004 - 2013 the cyclical component of revenues did not exceed +/- 0.3% of GDP. The cyclical component of revenues twice as high was observed in Slovakia in the years 2007 - 2008 (-0.6% of GDP) within the output gap of nearly 8% of potential GDP.

Table 2 The cyclical component of government revenues estimated by using semi-elasticity - based on production function approach (% of GDP, weights 2002-2011)

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Czech Republic	0.0	-0.1	-0.3	-0.3	-0.3	0.1	0.0	0.0	0.1	0.2
Hungary	-0.2	-0.2	-0.3	-0.2	-0.1	0.3	0.2	0.1	0.2	0.2
Poland	0.2	0.2	0.0	-0.3	-0.4	-0.2	-0.1	-0.2	0.0	0.1
Slovakia	0.1	0.0	-0.2	-0.6	-0.6	0.1	0.0	0.1	0.2	0.3
Output gap (2005 prices)[a)]										
Czech Republic	0.6	2.5	5.0	5.9	4.7	-1.5	-0.8	-0.5	-1.9	-3.3
Hungary	3.1	3.9	5.2	3.2	2.5	-4.9	-3.9	-2.5	-4.2	-3.4
Poland	-2.7	-2.3	0.3	3.1	4.1	1.7	1.5	1.9	0.4	-1.2
Slovakia	-0.8	0.6	3.1	7.6	7.9	-1.1	-0.4	-1.1	-2.1	-3.4

Note: [a)] the output gap expressed as % of potential GDP
Source: European Commission (Spring 2014*). Cyclical Adjustment of Budget Balances*, p. 30, 34, 38, 39.

The factors determining the cyclical component of public revenues will be respectively identified in following stages of the analysis.

3.2 The elasticity and sensitivity of budget revenues

The changes in the national income affect public income by automatic stabilizers of economic situation. Their mechanism involves automatic activation due to changes caused by cyclical fluctuations. The result of their actions is leveling of production and consumption, and by acting on the volume of production also reducing fluctuations in employment. The revenues having the properties of automatic stabilizers of economic situation are: personal income tax, corporate income tax, indirect taxes and mandatory social security contributions. The distinction of cyclical component from the public revenues is a complicated task, as it requires estimating the potential output, and on that basis determining the output gap and the short-term elasticity of different types of budget revenues to GDP [8]. The European Commission still uses in the process of fiscal surveillance the estimates of budget revenues elasticity, prepared by the OECD (the OECD member countries) and DG ECFIN (for other countries), based on the data from the years 1995 to 2004 [5].

Table 3 The elasticity of particular public revenues categories

	PIT	CIT	Indirect taxes	Social security contributions
Czech Republic	1.19	1.39	1.00	0.80
Hungary	1.70	1.44	1.00	0.63
Poland	1.00	1.39	1.00	0.69
Slovakia	0.70	1.32	1.00	0.70

Source: European Commission (2005). *New and updated budgetary sensitivities for the EU budgetary surveillance.* Information note for the Economic and Policy Committee. Brussels. ECFIN/B/6(2005)REP54508. p. 2

It is assumed that the elasticity of indirect taxes is equal to unity, which means that they react in proportion to changes in GDP. Income taxes have stronger reaction to change of the output gap. In the case of PIT it is primarily the result of progressive tax systems, whereas in the case of the CIT it is result of the fact that that corporate profits, which are the tax base of CIT react more than proportionally to changes in production [3]. Low elasticity of PIT in Slovakia was primarily the result of functioning of the linear tax. Return to tax progression in Slovakia from 2013 will have the effect of increasing the efficiency of the income tax as economic stabilizer.

The elasticity of the incomes from social security contributions in all countries adopts a value less than unity. This elasticity is derived from the impact of cyclical fluctuations on the level of employment and the amount of the average salary.

In order to examine the total public income elasticity, and then semi-elasticity parameters also the information is required on the share of each income category in total public income. The weights used by the EC from 2012 are presented in table 4.

Table 4 The share of particular revenue categories in total revenues

Weights based on data from the years 2002 - 2011					
	PIT	CIT	Indirect taxes	Social security contributions	Non-tax revenues
Czech Republic	10.68	10.25	27.44	39.05	12.58
Hungary	16.41	4.28	35.84	29.15	14.32
Poland	12.52	6.28	35.07	31.00	15.13
Slovakia	9.6	8.43	32.83	37.88	11.26

Source: G. Mourre. G-M. Isbasoiu. D. Paternoster. M. Salto, The cyclically-adjusted ... op. cit. p. 31.

Visegrad Group countries, despite differences in the structure of public revenues have many similarities in relation to other European Union countries. The basic feature is that their tax systems are based on indirect taxes. Considerably smaller share is of receipts from taxes imposed on income. From the point of view of our topic the share of non-tax revenues in total revenues is very essential. In contrary to the other categories of revenues following in the cycle the amount of real production, non-tax revenues are characterized by poor response or lack thereof to economic fluctuations. The weight of non-tax revenues will therefore affect the cyclical component of public revenues, estimated using the concept based on semi-elasticity. The share of this category in total revenues is approximately from 11.26% in Slovakia to 15.13% in Poland.

The overall elasticity of the public revenues and their sensitivity parameters to the change of the output gap by 1 percentage point is presented in table 5. This data illustrates that the total income elasticity is less than unity. Elasticity parameters allow to divide the study group of countries into two subgroups. The first, with the elasticity of income below 0.8, includes Poland (0.78) and Slovakia (0.77), and the second includes the countries with the elasticity of income above 0.8, the Czech Republic (0.86) and Hungary (0.88). Despite the similarities of the countries within distinguished subgroups in relation to elasticity of revenues, the differences occur when considering the sensitivity of revenues to the output gap changes. The revenues

sensitivity parameter in the Czech Republic is about 0.063 percentage points higher than the adequate parameter calculated for Hungary. The difference between Poland and Slovakia in this respect is lower and amounts to 0.04 percentage points. The research shows that a change in the output gap in Slovakia results in a change of revenues by 0.261%, while in Hungary by 0.405%.

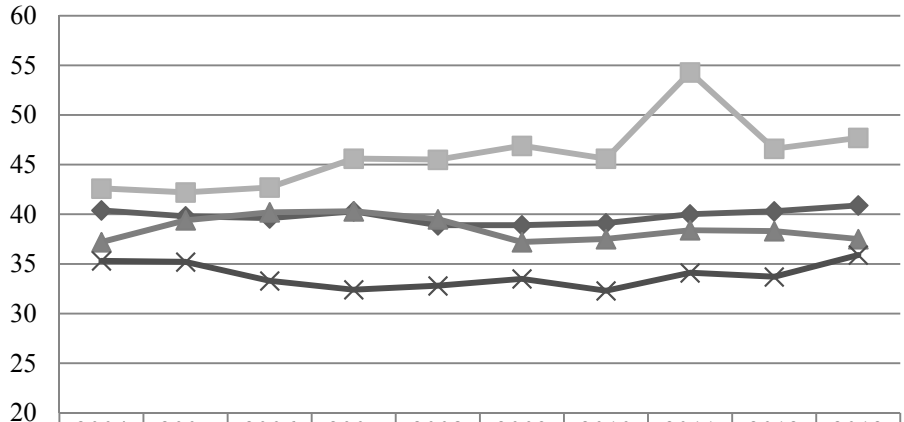
Table 5 The elasticity and sensitivity of public revenues in the Visegrad Group countries (weights of 2004-2013)

	Elasticity of total revenues	Share of revenues in GDP	Sensitivity to change in the output gap
Czech Republic	0.86	39.82	0.342
Hungary	0.88	45.97	0.405
Poland	0.78	38.55	0.301
Slovakia	0.77	33.85	0.261

Source: Elasticity of total revenues based on the publication as in table 3; Sensitivity of revenues - own calculations.

Sensitivity level of revenues is specified by the amount of the share of public revenues in GDP. This information is given in the diagram 1.

Figure 1 The share of public revenues in GDP in the Visegrad Group countries



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	40,4	39,8	39,6	40,3	38,9	38,9	39,1	40,0	40,3	40,9
Hungary	42,6	42,2	42,7	45,6	45,5	46,9	45,6	54,3	46,6	47,7
Poland	37,2	39,4	40,2	40,3	39,5	37,2	37,5	38,4	38,3	37,5
Slovakia	35,3	35,2	33,3	32,4	32,8	33,5	32,3	34,1	33,7	35,9

Source: Eurostat.

The average share of public revenues in GDP in the decade 2004 - 2013 in the study countries was diverse. The difference of more than 12 pp. occurred between Slovakia (33.85) and Hungary (45.97). In some years of observation it was even higher (for example in 2011 it amounted to 20.2 pp.). It explains the various sensitivities of public revenues in these countries to the changes in the output gap. The differences between Slovakia and other countries of the Visegrad Group take a much smaller size. The average difference between Slovakia and Poland was - 4.7 pp. in the study period, and between Slovakia and the Czech Republic - 5.9 pp.

3.3 The reaction of public revenues to the output gap change - from the perspective of the sensitivity and semi-elasticity concept

The study of the cyclical revenues reaction to the change in the output gap according to CAB concept along with the new methodology requires the estimation of the semi-elasticity of

revenues parameters (semi-elasticity of revenues). In order to assign them there are necessary concerning the short-term elasticity of revenues, the share of each category of revenues in GDP and the share of total revenues in GDP. Semi-elasticity of revenues can be presented by the equation 1.

$$\varepsilon R_i = \left(\sum_{i=1}^{5} \gamma R_i \frac{R_i}{R} - 1 \right) \frac{R}{Y} \quad (1)$$

where: εR_i - semi-elasticity of revenues; γR_i - short-term elasticity of i-category of revenue in relation to the output gap; $\frac{R_i}{R}$ - weight; $\frac{R}{Y}$ – the share of total revenues in GDP.

Taking into account the assumption omitted in the previously used method, that public revenues are a component of GDP, it must be assumed that changes in revenues follow the cyclicality of GDP. Knowing the elasticity of revenues parameters, in order to estimate semi-elasticity of revenues it is needed to subtract 1 from the elasticity parameter, and then the obtained amount needs to be multiplied by the share of public revenues in GDP. The estimations carried out in this way for the Visegrad Group countries are presented in table 6.

Table 6 Semi-elasticity of revenues estimation

	Elasticity of total revenues	**Revenues as a component of GDP (elasticity-1)**	**Share of revenues in GDP**	**Semi-elasticity of revenues**
	a	b = a - 1	c	d = (b*c/100)
Czech Republic	0.86	-0.14	39.82	-0.056
Hungary	0.88	-0.12	45.97	-0.055
Poland	0.78	-0.22	38.55	-0.085
Slovakia	0.77	-0.23	33.85	-0.078

Source: Own calculations.

The calculation shows that the reaction of public revenues ratio to GDP towards cyclical change in GDP is close to zero. Semi-elasticity parameter of revenues is the lowest in Hungary (-0.055) and the highest in Poland (-0085). The deviation of the parameter from zero is determined among others with participation of the non-tax revenues in public revenues, less dependent (or independent) on cyclical fluctuations. The cyclicality of other revenues is close to the cyclicality of GDP.

The change in the method of estimating CAB had a major impact on the cyclicality parameters of public revenues. The effects of these changes are presented in table 7. The difference in the level of parameters describing the reaction of public revenues to the output gap change, estimated by using the concept of sensitivity and the concept semi-elasticity takes in the study group of countries the values between -0.339 pp. in Slovakia to -0.460 pp. in Hungary.

Table 7 The effects of the change in the method of estimating the impact of the output gap changes on public revenues (weights 2004-2013)

	Sensitivity	**Semi-elasticity**	**Difference**
	a	b	(b-a)
Czech Republic	0.342	-0.056	-0.398
Hungary	0.405	-0.055	-0.460
Poland	0.301	-0.085	-0.386
Slovakia	0.261	-0.078	-0.339

Source: Own calculations.

They provide justification for the differences in sizes of the cyclical revenues estimated by using both methods, which was presented in table 1.

4 Results and Discussion

The impact of economic cycle on the public revenues is diverse in each country, which shows a different strength which the economic automatic stabilizers use to smooth the economic cycle. In the case of public revenues the structure of taxation, the tax base and the elasticity of income in relation to the base are crucial. Particularly stronger stabilizing effect will be of the progressive taxes imposed on the sensitive to changes in the economic activity taxation bases. The use of automatic stabilizers of the economic situation in fiscal policy allows for faster response to cyclical fluctuations than during the implementation of discretionary solutions. However, we must remember that the automatic stabilizers of the economic situation start automatically, not only due to changes caused by cyclical fluctuations, but also structural changes in the economy.

The carried out analyses show that the elasticity of total budget revenues in the Visegrad Group countries is lower than unity. Flexibility parameters were calculated on the basis of a new system of weights, but the parameters of various revenues categories have not been updated yet. Whereas, in the last decade the tax systems of the EU countries were subject to evolution. Fundamental changes have taken place in the Visegrad Group countries, which is reflected in changes in tax rates of consumption, income and capital [7]. An example could be the changes in the personal income tax. Slovakia introduced a flat tax in 2004, and in 2013 returned to progression. In the Czech Republic the flat rate tax replaced the tax progression in 2008, and although it is still in force, however since 2013 the solidarity surcharge was introduced (solidarity surcharge) in the amount of 7% for income over four times the average annual salary. In Hungary since 2003 the progressive taxation was flattened, until the introduction of the flat tax since 2011. In Poland, three-stage tax scale was replaced by a two-stage scale since 2009, but a number of allowances were limited or liquidated. The catalog of tax allowances has also been verified in other study countries.

The actualization of the short-term elasticity of budget revenues is essential for the quality of the methodology used. The measurement of this elasticity is a complicated task as it requires collecting detailed tax information from EU countries. From the point of view of measuring short-term elasticity of revenues under conditions of tax systems evolution the works of the Output Gap Working Group (OGWG) of the Economic Policy Committee (EPC) are of high importance, they involve the collection and analysis of information on the legal and administrative changes in the Member States affecting the tax revenues. They allow the identification of the impact of discretionary tax measures (DTM - discretionary tax measures) on short-term elasticity of budget revenues [6].

Assessing the introduced methodology change, which rejects false assumptions, it should be indicated that it allows for a more precise interpretation of the structural balance CAB estimates. The existing method is closer to the concept of structural balance, defined as the estimated amount which allows to specify what would the condition of public finances be, if the economy operated at full exploitation of production potential. In the previously used method of estimating CAB, its components were expressed in relation to real GDP rather than potential GDP.

In practice, the change did not considerably affect the size of the CAB balance, but its components. This is reflected in the growing importance of the cyclical component of expenditures, and a clear weakening of cyclical component of revenues. The effect of the change was so large that in some EU countries, i.e. Ireland, Spain, the United Kingdom in the

years 2004 - 2013 there was no cyclical component of revenues. In the countries of the Visegrad Group the cyclical component of income was included - with the exception of three observations - in the range of +/- 0.3% of GDP. Meanwhile, the cyclical component of public expenditure expressed as a ratio to GDP increased considerably and in the decade of the observation amounted from -2.6 to 1.5% in the Czech Republic, from -2.7 to 2.5 in Hungary, from -2.0 to 1.3 in Poland, and from -3.2 to 1.4 in Slovakia [5].

5 Conclusions

The modification of the method for estimating CAB for the fiscal surveillance revealed another irregularities of medium-term objective, which is the criterion for assessment of public finances and fiscal policy of EU Member States. Basing the methodology on faulty assumptions, taking hypothetical method of potential production as the base, the lack of actualizing the short-term elasticity parameters of different types of budget revenues, as well as rarely performed actualization of the weight system concerning the share of individual revenues in total revenues, induce to a careful approach to the measure of the structural balance CAB and its components. The recent methodological change provided new arguments in favor of such an approach, radically changing the size of the cyclical component of public revenues and expenditures. The caution in the use of this criterion is especially appropriate as the structural balance CAB is accepted as the medium-term budgetary objective (MTO). In this situation the increased significance of public debt as a parameter of public finances assessment in the reformed Stability and Growth Pact in 2011 should be assessed positively. For the purpose of multilateral surveillance, Member States participating in the euro zone include in stability programs and countries outside the EMU in convergence programs, the expected course of shaping the public debt ratio. The evaluation of public finances on the basis of the actual size of the public debt will be more credible than being based on the hypothetical size which is the structural balance.

Basing the methods for estimating CAB on the semi-elasticity concept should not mean omission of the use of the method based on the sensitivity concept. For the cognitive purposes it is reasonable therefore to use both the method based on sensitivity, as well as the method based on semi-elasticity. Sensitivity parameters allow to capture the reaction of the revenues to a change in the real GDP, in contrary to semi-elasticity parameters that express dependence in relation to the potential level of GDP.

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ÚZEMNÁ SAMOSPRÁVA A ROZPOČTOVÉ URČENIE DANÍ V SLOVENSKEJ REPUBLIKE

Erika NEUBAUEROVÁ[1]

Nadiya DUBROVINA[2]

[1] University of Economics in Bratislava, Department of Finance, Dolnozemská 1, 852 35 Bratislava, e-mail: erika.neubauerova@euba.sk

[2] University of Economics in Bratislava, Department of Finance, Dolnozemská 1, 852 35 Bratislava, e-mail: nadija@mail.ru

ABSTRACT

The paper deals with the revenue base of self government units in Slovakia in the context of current economic development. The focus is on tax assignment and evaluation of its development since 1993. The paper identifies key factors which influence the local taxes in the Slovak Republic.

Keywords: self government units, tax assignment, local taxes

JEL codes: H71, H77

1 Úvod

Proces globalizácie a rozširovania medzinárodného ekonomického priestoru prináša so sebou nie len pozitíva, ale aj množstvo otázok a problémov, na ktoré sa vlády jednotlivých krajín snažia nájsť uspokojivé odpovede, či riešenia. Súčasný vývoj európskych krajín, poznamenaný vážnymi dôsledkami svetovej krízy, sústreďuje pozornosť čoraz väčšieho počtu ekonómov na fiškálnu politiku a relevantnosť jej nástrojov. Ukazuje sa, že jedným z kľúčových prvkov efektívne fungujúceho fiškálneho systému je vhodné nastavenie finančných tokov medzi jednotlivými vládnymi úrovňami, ktoré reflektuje reálne možnosti štátu korigovať objektívne existujúce regionálne disparity, vyplývajúce z rôznych vnútorných východísk štátu (politické zriadenie, správne usporiadanie, geografický, kultúrny, sociálny, či ekonomický potenciál). V uvedenom kontexte zohráva významnú úlohu rozpočtové určenie daní a daňová právomoc nižších správnych úrovní.

2 Rozpočtové určenie daní – základné východiská

Dane sa vo všeobecnosti považujú za najvýznamnejší príjem verejných rozpočtov. Z makroekonomického hľadiska sa za kľúčové prvky dobrého daňového systému považujú dostatočný daňový výnos a stabilita pri výbere daní (vrátane minimalizácie strát spôsobených zdanením). Priestorový aspekt daní – teda ich rozpočtové určenie – vyplýva zo špecifických podmienok každého štátu. Ponímame ho ako *„súbor konkrétnych pravidiel, ktoré určujú, do ktorého stupňa sústavy verejných rozpočtov a v akom objeme plynie skutočný výnos dane“*.[4]

Kreovanie daňového systému, ktorý by reflektoval reálne potreby nižších územných (samosprávnych) celkov, však pomerne často naráža na rôzne úskalia. Identifikovanie vhodných daní, ochota vyššej, resp. najvyššej vládnej úrovne vzdať sa časti legislatívnej, či rozhodovacej právomoci sú konfrontované s potrebou zabezpečiť kompetencie samospráv

dostatočnou príjmovou základňou. Vzhľadom k téme príspevku obrátime preto pozornosť na miestne dane.

Z teoretického hľadiska je možné v tejto oblasti zohľadniť východiskové tézy teórie fiškálneho federalizmu, prezentované autormi Tiebout [11], Musgrave-Musgraveová [5], Oates [7] a ďalší. Pri podrobnejšom, parciálnom skúmaní problematiky, je vhodné vychádzať z publikácií autorov, zaoberajúcich sa problematikou decentralizácie a miestnych daní v našich zemepisných šírkach, nakoľko reflektujú špecifiká unitárnych štátov, vrátane prebiehajúcich decentralizačných procesov – Halásková [2], Jílek [3], Provazníková [9], Peková, [8] a ďalší.

3 Daňové príjmy samospráv

V kontexte zamerania nášho príspevku uvedieme päť aspektov, rozhodujúcich pre označenie daňových príjmov ako „miestnych“ daní: [1]

1) obec musí byť oprávnená rozhodovať o ich zavedení či zrušení,
2) obec musí mať oprávnenie rozhodovať o niektorých daňových náležitostiach (daňovník, predmet, základ, sadzba, termín daňového priznania, splatnosť),
3) obec musí mať možnosť výrazne ovplyvňovať ich výnos (právomoc zvýšiť alebo znížiť základné sadzby, oslobodenia, úľavy),
4) musia byť originálnym príjmom rozpočtu obce v plnej výške bez možnosti odobratia napríklad len časti výnosu pre potreby iného rozpočtu,
5) musia pochádzať z miestnych zdrojov.

V praxi vyspelých trhových ekonomík je niekedy obtiažne naplniť všetkých päť týchto určujúcich kritérií. V niektorých krajinách sa legislatívna právomoc týka regiónov, niekde obcí a niekde právomocou pri určovaní daní nedisponuje žiadna úroveň územnej samosprávy. Inde zas môže miestna vláda ovplyvňovať oblasť priamych daní a má rozhodovaciu právomoc v prípade väčšiny daní. V tabuľke 1 môžeme vidieť členenie štátov podľa rozhodovacích právomoci pri stanovení vlastných daňových príjmov samospráv.

Medzi najčastejšie ukladanú daň na miestnej úrovni patrí daň z majetku alebo z nehnuteľnosti uložená na majetok domácností, obchodný majetok, stavby alebo pôdu. Vyskytuje sa takmer vo všetkých členských krajinách EÚ. Miestne vlády môžu tiež ukladať dane na dopravné prostriedky, dary, dedičstvo, hracie automaty a iné.

Vo viac než polovici členských štátov EÚ sú však dôležitým zdrojom príjmov územných samospráv podiely na centrálne vyberaných daniach (ďalej len podielové dane). Tabuľka 2 ukazuje, v ktorých krajinách sú podielové dane podstatným zdrojom príjmov územných samospráv, v ktorých štátoch menej a kde sa podielové dane vôbec nevyskytujú.

Tabuľka 1 Rozhodovacie právomoci pri stanovení daňových príjmov samospráv

	Legislatívna právomoc
vo väčšine daňových záležitostí	Švédsko, Fínsko, Nemecko
prevaha miest nad regiónmi	Španielsko, Belgicko, Taliansko, Francúzsko
iba mestá a obce	Bulharsko, Poľsko, ČR, Cyprus, Maďarsko, Dánsko, Luxembursko
malé rozhodovacie právomoci	Rakúsko, Litva, Estónsko, Írsko, VB, Holandsko, Rumunsko, Slovensko, Portugalsko
bez právomoci	Malta, Slovinsko, Lotyšsko, Grécko

Zdroj: [9] Vlastné spracovanie.

V štátoch, kde podielové dane tvoria významný zdroj príjmov územných samospráv, ide najčastejšie o osobné dôchodkové dane, kam patrí daň z príjmu fyzických osôb (Belgicko, Lotyšsko, Litva, Estónsko, Rumunsko, Poľsko, Slovensko, Grécko, Maďarsko, Slovinsko, Portugalsko, Nemecko), ďalej ide o daň z pridanej hodnoty (Belgicko, Španielsko, Taliansko, Česká republika, Grécko, Portugalsko, Luxembursko, Nemecko), dane korporátne, kam zaraďujeme daň z príjmu právnických osôb (Dánsko, Fínsko, Rakúsko, Poľsko, Portugalsko, Nemecko) a v neposlednom rade sú to majetkové dane (Estónsko, Lotyšsko, Litva, Grécko, Veľká Británia).

Tabuľka 2 Členenie štátov podľa významu podielových daní

	Miera významnosti
vysoká	Belgicko, Rakúsko, Lotyšsko, Litva, Estónsko, Rumunsko, Poľsko, Česká republika, Slovensko, Grécko, Maďarsko, Portugalsko, Slovinsko, Luxembursko
nízka	Nemecko, Španielsko, Taliansko, Dánsko, Fínsko, Írsko, VB, Francúzsko
podielové dane sa nepoužívajú	Malta, Cyprus, Švédsko, Holandsko, Bulharsko

Zdroj: [9] Vlastné spracovanie.

Podiely na centrálne vyberaných daniach, alebo tiež tzv. podielové dane sú nástrojom fiškálnej politiky, pri ktorom nejestvuje jednoznačná zhoda v tom, či ide o príjem vlastný (daňový), alebo o formu transferu. Tento rozdielny prístup možno podporiť aj skutočnosťou, že v mnohých prípadoch je mechanizmus prerozdeľovania výnosu založený na celej škále kritérií, ktorých snahou je zohľadniť prípadné disparity, existujúce v niektorých regiónoch. Najčastejšie používaným kritériom je počet obyvateľov (niekedy modifikovaný vo vzťahu k rôznym skupinám obyvateľov, napr. školopovinné deti, starší občania), avšak výnimkou nie sú ani kritériá založené na geografickom základe (napr. nadmorská výška územnej jednotky), či fiškálnej kapacite (s cieľom dorovnať výšku príjmovej základne nízko príjmových samospráv).

V podmienkach SR je v súčasnosti (2014) takouto daňou daň z príjmov fyzických osôb (okrem dane vyberanej zrážkou), zaraďovaná do skupiny vlastných daňových príjmov územnej samosprávy. Z hľadiska ekonomickej podstaty je však mechanizmus prerozdeľovania jej výnosu viac-menej transferom (výnos dane sa sústreďuje centrálne a na základe stanovených kritérií je prerozdeľovaný do rozpočtov obcí a vyšších územných celkov a časť sa ponecháva v štátnom rozpočte).

4 Genéza rozpočtového určenia daní v SR

Ak chceme posúdiť rozpočtové určenie daní vo fiškálnom systéme v podmienkach Slovenskej republiky, neobídeme sa bez stručného „historického“ exkurzu do ich vývoja. V snahe zachovať objektívnosť porovnávania v čase sa musíme odraziť od roku 1993, kedy vznikla samostatná Slovenská republika. Kľúčovým medzníkom bol potom 1. január 2005, kedy došlo k reforme finančného systému samospráv v dôsledku fiškálnej decentralizácie. [6]

Obdobie rokov 1993 – 2004 možno stručne charakterizovať ako obdobie, v ktorom územná samospráva na najnižšom stupni disponovala jedinou miestnou daňou, ktorou bola daň z nehnuteľností, pričom v rámci jednotlivých súčastí tejto dane (daň z pozemkov, daň zo stavieb a daň z bytov) mala samospráva obmedzenú daňovú právomoc (zvyšovanie a znižovanie sadzieb v rámci zákonom stanovených limitov, priznávanie rôznych daňových úľav). Vyššie

územné celky (regionálny stupeň samosprávy) boli kreované až na prelome rokov 2001/2002 a až do januára 2005 boli financované predovšetkým prostredníctvom tzv. decentralizačnej dotácie. Reálne v tom období teda do rozpočtov VÚC neplynul výnos žiadnej dane. Od 1.1.2005 bola z hľadiska rozpočtového určenia samosprávnym krajom pridelená daň z motorových vozidiel, ktorá sa pretransformovala z cestnej dane.

Okrem uvedených miestnych daní (daň z nehnuteľností a daň z motorových vozidiel), sa územná samospráva v SR podieľala a podieľa na výnose centrálne vyberaných daní. V období rokov 1993 – 2004 túto funkciu plnili tri dane (daň z príjmov fyzických osôb zo závislej činnosti a funkčných požitkov, daň z príjmov právnických osôb, cestná daň). V roku 1993 bola jedinou podielovou daňou daň z príjmov fyzických osôb zo závislej činnosti a funkčných požitkov, ktorá vo výške 70 % plynula do rozpočtov obcí, v rokoch 1994 – 2004 existovali tri podielové dane, a to daň z príjmov fyzických osôb zo závislej činnosti a funkčných požitkov, daň z príjmov právnických osôb a cestná daň. Kritériami prerozdeľovania výnosu týchto daní boli predovšetkým počet obyvateľov samosprávnej jednotky (pri všetkých troch daniach) a sídlo daňovníka (pri dani z príjmov právnických osôb). Najstabilnejším zdrojom bola cestná daň, ktorej výška v prospech samospráv nezaznamenávala výraznejšie výkyvy. Od roku 2001 sa pristúpilo k rozdielnemu prístupu v prerozdeľovaní tohto zdroja medzi mestá Bratislava a Košice na jednej strane a ostatné mestá na strane druhej. Výnos dane z príjmov fyzických osôb zo závislej činnosti a funkčných požitkov, ako aj výnos dane z príjmov právnických osôb sa prerozdeľoval medzi rozpočty obcí a štátny rozpočet, výnos cestnej dane sa prerozdeľoval medzi rozpočty obcí a Štátny fond cestného hospodárstva, po zrušení väčšiny štátnych účelových fondov medzi rozpočty obcí a štátny rozpočet.

V nadväznosti na reformu verejnej správy a s ňou súvisiaci proces fiškálnej decentralizácie, sa k 1.1.2005 v systéme uskutočnili významné zmeny. Kľúčovým prvkom reformy bolo stanovenie jedinej podielovej dane, a to dane z príjmov fyzických osôb (okrem dane vyberanej zrážkou). Do systému prerozdeľovania prostredníctvom podielov na centrálnych daniach boli zapojené aj vyššie územné celky. Do 31.12.2012 sa výnos dane prerozdeľoval nasledovne: obciam sa poukázalo 70,3 %, vyšším územným celkom 23,5 % výnosu dane a štát si ponechával rezervu 6,2 %. Legislatívne bolo toto rozdelenie ukotvené v Zákone č. 564/2004 Z. z. o rozpočtovom určení výnosu dane z príjmov územnej samospráve a o zmene a doplnení niektorých zákonov a v Nariadení vlády č. 668/2004 Z. z. o rozdeľovaní výnosu dane z príjmov územnej samospráve. Postupné korekcie Nariadením vlády č. 531/2010 a Nariadením vlády č. 415/2012, ktorými sa mení Nariadenie vlády č. 668/2004 Z. z. o rozdeľovaní výnosu dane z príjmov územnej samospráve, priniesli zmenu v podobe modifikácie výšky podielov pre jednotlivé vládne úrovne. V roku 2013 si štát ponechal rezervu vo výške 12,7 % výnosu, obciam bol presunutý výnos vo výške 65,4 % a vyšším územným celkom vo výške 21,9 %. Na rok 2014 bol pre obce stanovený výnos dane vo výške 67% jej celkového výnosu.

Nemenej dôležitá bola nadväznosť stanovených prerozdeľovacích kritérií na kompetencie samospráv. Nosné kritérium „počet obyvateľov“, ktoré sa uplatňovalo do roku 2004, bolo modifikované nadmorskou výškou a veľkostnou kategóriou obce, svoje miesto zaujali tiež kritériá spojené s počtom žiakov v školách a školských zariadeniach, ako aj s počtom obyvateľov starších ako 62 rokov (súvis s relevantnými kompetenciami obcí). Pri VÚC sa zohľadnili okrem počtu obyvateľov aj rozloha samosprávneho kraja, dĺžka ciest II. a III. triedy, obrátená hustota, počet 15 – 18 ročných a počet obyvateľov starších ako 62 rokov. Možno konštatovať, že rovnako, ako pri obciach, aj v prípade samosprávnych krajov stanovené kritériá korešpondujú s kompetenciami, ktoré regionálny stupeň samosprávy zastrešuje.

V neposlednom rade je potrebné zmieniť zmeny v systéme miestnych daní. S cieľom zabezpečiť rast úrovne netrhových činností v priestore nižších územných celkov a posilniť finančnú autonómiu samospráv, bol v rámci procesu fiškálnej decentralizácie prijatý nový

zákon o miestnych daniach. [12] Vychádzal zo zákonov, ktoré do roku 2004 upravovali miestne poplatky, daň z nehnuteľností a cestnú daň. Dôvodom bol hlavne vstup Slovenskej republiky do Európskej únie a s tým súvisiace potrebné úpravy zákona tak, aby všetky druhy miestnych poplatkov a daní boli v súlade so Smernicami Európskej únie. V praxi to znamenalo zrušenie niektorých miestnych poplatkov a transformáciu väčšiny poplatkov na miestne dane. V priebehu roka 2004 bol zrušený poplatok z predaja tabakových výrobkov a z alkoholických nápojov. V nasledujúcom roku bol tiež zrušený poplatok zo vstupného, z reklamy a taktiež sa zrušil aj poplatok za užívanie bytu alebo časti bytu na iné účely ako na bývanie. Pri dani z nehnuteľností sa posilnila daňová právomoc obcí a revidoval sa spôsob výpočtu daňového základu jednotlivých druhov nehnuteľností. Cestná daň sa pretransformovala na daň z motorových vozidiel a jej výnos sa z hľadiska rozpočtového určenia stal príjmom vyšších územných celkov.

5 Diskusia a záver

Decentralizácia verejnej správy je procesom, ktorý zákonite so sebou prináša nevyhnutnosť prehodnocovania mechanizmov spojených s financovaním potrieb nižších územných celkov. Napätosť miestnych rozpočtov je často spojená s hľadaním optimálneho pomeru medzi kompetenciami, ktoré sú samosprávam zverené a finančnými zdrojmi, ktorými príslušná úroveň verejnej správy disponuje. Vzhľadom na to, že každý štát má rôzne východiskové podmienky, nie je možné nájsť jednotný model usporiadania týchto vzťahov a každá krajina rieši svoje špecifické problémy systémom nástrojov, ktoré reflektujú konkrétnu predstavu o vhodnom prerozdeľovacom mechanizme či transparentných finančných tokoch.

Jedným z priestorových nástrojov fiškálnej politiky je systém podielových daní, založený na prerozdeľovacích kritériách, ktoré spravidla reflektujú regionálne disparity v rámci územia daného štátu. Nie je tomu inak ani na Slovensku, kde túto funkciu plní daň z príjmov fyzických osôb. Aj napriek tomu, že uvedený mechanizmus, reformovaný a systémovo inštitucionalizovaný od 1.1. 2005 spĺňa viaceré predpoklady, ktoré by z dlhodobého hľadiska mali príjmovú základňu samospráv stabilizovať, aktuálny vývoj a dôsledky krízy potvrdili, že za istých okolností nestojí až na takých pevných pilieroch, ako by bolo žiaduce. Citlivosť jedinej podielovej dane na najväžnejší dôsledok krízy – nezamestnanosť (zníženie objemu vybranej dane a následné ohrozenie dostatočnosti príjmovej základne samospráv), vedie k úvahám o rozšírení počtu podielových daní podľa vzoru iných európskych krajín. Rozdiely medzi obcami a regiónmi z ekonomického hľadiska a s tým súvisiace výrazné rozdiely v ich daňovej sile, neumožňujú presunúť na samosprávu viac úloh, ktoré by mali mať v zodpovednosti v súlade s princípom subsidiarity. To evokuje debaty o prípadnej účelovej modifikácii kritérií prerozdeľovania výnosu v súčasnosti jedinej podielovej dane – dane z príjmov fyzických osôb).

Podielové dane vo všeobecnosti plnia funkciu zabudovaného stabilizátora, ich nastavenie by malo reflektovať možnosti korekcie prípadných regionálnych, či miestnych disparít. Z uvedeného dôvodu by sa rozpočtové určenie daní malo principiálne sústrediť na zabezpečenie dostatočnej príjmovej základne samospráv identifikovaním takých daní, ktoré v plnej výške plynú do ich rozpočtov s akcentom na primeranú daňovú právomoc. Aj napriek tomu, že fiškálna decentralizácia na Slovensku v tomto smere isté zmeny priniesla, je možné polemizovať o tom, či sú uvedené zmeny postačujúce. Transformácia miestnych poplatkov na miestne dane, či korekcia spôsobu výpočtu dane z nehnuteľností síce na jednej strane nespôsobili výrazné zvýšenie daňového zaťaženia (reflektovali sociálnu situáciu daňovníkov v obciach a mestách), na druhej strane však ani nepriniesli zásadné zvýšenie príjmov z týchto daní do miestnych rozpočtov. Domnievame sa, že dozrel čas, aby doterajšie skúsenosti

samospráv s uplatňovaným systémom miestnych daní iniciovali relevantné analýzy jeho silných a slabých stránok s cieľom optimalizovať rozpočtové určenie daní v kontexte reálnych dôsledkov decentralizačného procesu vo verejnej správe.

Poďakovanie

Príspevok je výstupom v rámci riešenia projektu VEGA 003: Vplyv regulácie trhov na rizikové rozhodovanie ekonomických subjektov.

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NÁSTROJE DAŇOVEJ POLITIKY A EKONOMICKÁ NEROVNOSŤ

Anna SCHULTZOVÁ[1]

[1] Ekonomická univerzita v Bratislave, Národohospodárska fakulta, Katedra financií, Dolnozemská cesta 1, 852 35 Bratislava, Slovenská republika, e-mail: anna.schultzova@euba.sk

ABSTRACT

In a society, more often resonates a question - to what extent the tax policy can influence the mitigation of the income disparities of subjects. Alarming statistics point to the fact, that approximately 85 richest people in the world own such property as the poorest 3.5 billion people, which is the half of the world's population. Economic inequality begins to have increasing consequences, not only economic but also political. The problem of economic inequality in the EU takes a broader dimension - which consists in deepening insecurity and distrust in the EU itself and its institutions, especially in the middle and poorer sections of the population. The EU can reinforce its position in the area of tax policy with a more determined activities leading to the elimination of tax evasion, to the prevention of activities in tax havens, to a higher level of harmonization of corporation tax, to the introduction of minimum corporation tax as well as other measures.

Keywords: tax policy instruments, economic inequality, elimination of tax evasion, minimum tax

JEL codes: H26, J31

Úvod

Napriek skutočnosti, že globálna nerovnosť medzi štátmi poklesla, sociálna nerovnosť vo vnútri jednotlivých štátov rastie. Stále častejšie sa ozývajú hlasy podporujúce progresívnejšie zdaňovanie príjmov fyzických osôb ako aj spoločností vykazujúcich nadštandardné zisky (na túto skutočnosť poukazujú najmä ľavicoví ekonómovia). Pravicovo orientovaní ekonómovia sa viac prikláňajú k lineárnemu zdaňovaniu príjmov (uplatňovanie rovnakej sadzby dane). Sú toho názoru, že pri rovnakej sadzbe dane je motivácia bohatších subjektov k zdaňovaniu v daňových rajoch nižšia.

Do popredia sa tak dostáva otázka či progresívnejší systém zdaňovania príjmov sa bude skutočne väčšou mierou podieľať na riešení naliehavých sociálnych problémov štátu alebo lineárny systém zdaňovania, pri ktorom sa predpokladá, že zvýši daňovú disciplínu subjektov a príjmy verejných rozpočtov budú vyššie.

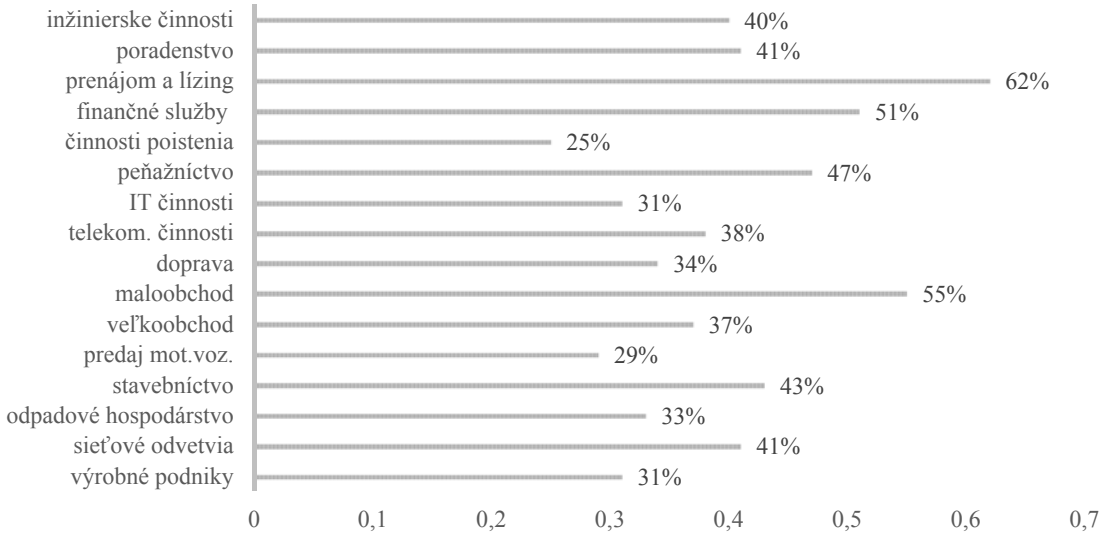
Príjmová nerovnosť má aj oveľa širší rozmer – spomaľuje ekonomický rast, vyvoláva finančné krízy a oslabuje dopyt. Môže tak vplývať na pomalší hospodársky rast nielen jednotlivých štátov, ale celých ekonomických zoskupení. Vo všeobecnosti daňová politika uplatňuje svoje špecifické nástroje na ovplyvňovanie makroekonomických a mikroekonomických procesov v ekonomike a môže tak významným spôsobom vplývať na hospodársku činnosť štátu. Ekonómovia nechápu úlohu daní len pasívne – nie sú len najvýznamnejším zdrojom verejných rozpočtov. Zohrávajú aj aktívnu úlohu spočívajúcu v pôsobení na daňové subjekty a vôbec na celú činnosť štátu.[3].

1 Príjmová nerovnosť

Výsledky analýzy Medzinárodného menového fondu poukazujú na skutočnosť, že vyššiemu hospodárskemu rastu a životnej úrovni by malo pomôcť vyššie daňové zaťaženie pre tie subjekty, ktoré dosahujú vyššie príjmy, resp. vykazujú nadštandardné zisky. Súčasne by malo dôjsť k prerozdeleniu získaných finančných prostriedkov v prospech chudobnejších. Dochádza tak k prikloneniu sa k názorovému spektru skôr ľavicových ekonómov podporujúcich progresívne zdaňovanie príjmov. Na rozdiel od pravicovo orientovaných ekonómov, ktorí progresívne zdanenie príjmov považujú za trest pre úspešných.

Súčasnú situáciu v SR charakterizuje snaha štátu zamedziť vykazovanie daňovej straty veľkého množstva podnikov/spoločností pôsobiacich v rôznych odvetviach, a to často napriek tomu, že ich obraty sú značné. Prakticky až 62 % spoločností za posledné štyri zdaňovacie obdobia neodviedli žiadne dane. Je zrejmé, že finančné prostriedky vo väčšine prípadoch ostávajú v rukách niektorých jednotlivcov, a príjmová nerovnosť sa prehlbuje. Zavedenie daňovej licencie pre spoločnosti pôsobiace v SR je preto pochopiteľným krokom zo strany štátu. Už teraz možno vidieť snahu o postupné rušenie veľkého množstva tzv. „spiacich firiem“, ktoré nevykonávali prakticky žiadnu činnosť, ale boli podozrivé z neoprávneného krátenia dane. Je preto potrebné, aby aj daňová správa robila ďalšie kroky vedúce k zefektívneniu výberu daní a zamedzovaniu únikov na daniach.

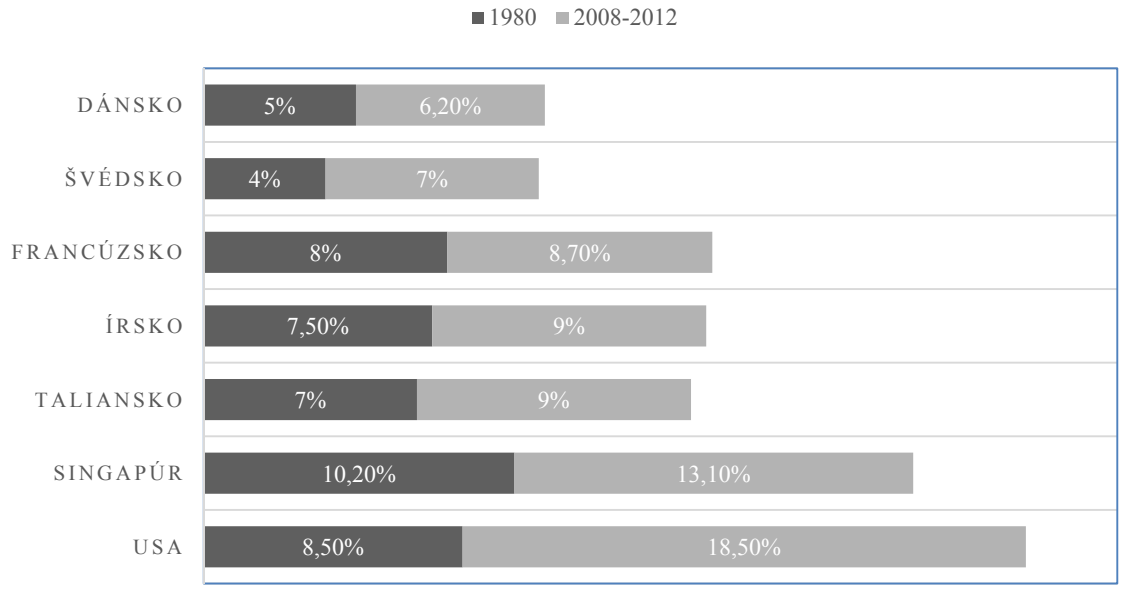
Graf 1 Priemyselné odvetvia a podiel daňových subjektov vykazujúcich stratu v SR, 2014



Zdroj: Spracované z údajov interného zdroja Deloitte. Prezentácia na tému: Daňové úniky a koncepcia bola proti ním.

Príjmová nerovnosť sa spája s takými prejavmi ako je vzostup veľmi bohatých ľudí, stagnujúce mzdy, oslabené vyhliadky strednej triedy a veľký počet subjektov nachádzajúcich sa v spodnej časti spoločenského uplatnenia. Príjmová nerovnosť nie je zďaleka problémom len EÚ, ale aj ostatnej časti sveta.

Graf 2 Príjmová nerovnosť vo svete – výber štátov;
Podiel príjmov v krajine, ktoré pripadnú jednému percentu najbohatších ľudí



Zdroj: Spracované z údajov http://www.ceit.sk/IVPR/Aktuality/Pond

Slovenská republika, tak ako to vyplýva zo štatistiky Svetovej banky, dosiahla v roku 2009 v ukazovateli príjmovej nerovnosti úroveň 25 %. O rok neskôr, teda v roku 2010, to už bola hodnota príjmovej nerovnosti 25,9 %. Na jej sledovanie sa v medzinárodnom porovnávaní často využíva Giniho koeficient, v ktorom v oboch sledovaných rokoch SR vykázala pomerne nízku mieru nerovnosti.

Priemerná hodnota Giniho koeficientu v krajinách EÚ dosiahla v roku 2010 úroveň 30,5%[1]. Giniho koeficient na Slovensku za uvedené obdobie dosiahol úroveň 25,9 %,[2] teda Giniho koeficient dosahuje v SR nižšiu hodnotu aj v porovnaní s priemernou hodnotou EÚ-27. Z dlhodobého hľadiska však možno sledovať postupné prehlbovanie príjmovej nerovnosti vo viacerých štátoch[3], napr. v Írsku, v Španielsku, v Litve, v Lotyšsku, ako aj v iných štátoch. [1]

Tabuľka 1 Giniho koeficient v štátoch EÚ-27

krajina/rok	2004	2005	2006	2007	2008	2009	2010	2011
EU (27) ∗	:	30.6	30.2	30.6	30.8	30.4	30.5	:
Belgium	26.1	28.0	27.8	26.3	27.5	26.4	26.6	:
Bulgaria	26	25	31.2	35.3	35.9	33.4	33.2	:
Czech Republic	:	26.0	25.3	25.3	24.7	25.1	24.9	25.2
Denmark	23.9	23.9	23.7	25.2	25.1	26.9	26.9	:
Germany	:	26.1	26.8	30.4	30.2	29.1	29.3	:
Estonia	37.4	34.1	33.1	33.4	30.9	31.4	31.3	:
Ireland	31.5	31.9	31.9	31.3	29.9	28.8	33.2	:
Greece	33.0	33.2	34.3	34.3	33.4	33.1	32.9	:
Spain	30.7	31.8	31.2	31.3	31.3	32.3	33.9	:
France	28.2	27.7	27.3	26.6	29.8	29.9	29.8	:
Italy	33.2	32.8	32.1	32.3	31.0	31.5	31.2	:
Cyprus	:	28.7	28.8	29.8	28.3	29.1	29.1	:

[1] Vzhľadom na skutočnosť, že nie sú k dispozícii kompletné údaje zo všetkých členských štátov, hodnota Giniho koeficientu za rok 2011 nie je v súčasnosti vyčíslená.
[2] 100 % úroveň by znamenala maximálnu nerovnosť – celý príjem spoločnosti by dostával jediný človek; 0 % úroveň by znamenala absolútnu rovnosť – keď všetky subjekty by mali rovnaké príjmy.
[3] Vzhľadom na globálnu krízu, ktorá znížila mieru zamestnanosti a príjmy jednotlivých skupín obyvateľstva.

Latvia	:	36.1	39.2	35.4	37.7	37.4	36.1	35.2
Lithuania	:	36.3	35.0	33.8	34.0	35.5	36.9	:
Luxembourg	26.5	26.5	27.8	27.4	27.7	29.2	27.9	:
Hungary	:	27.6	33.3	25.6	25.2	24.7	24.1	:
Malta	:	26.9	27.0	26.3	27.9	27.2	28.4	:
Netherlands	:	26.9	26.4	27.6	27.6	27.2	25.5	:
Austria	25.8	26.2	25.3	26.2	26.2	25.7	26.1	:
Poland	:	35.6	33.3	32.2	32.0	31.4	31.1	:
Portugal	37.8	38.1	37.7	36.8	35.8	35.4	33.7	:
Romania	31	31	33	37.8	36.0	34.9	33.3	33.2
Slovenia	:	23.8	23.7	23.2	23.4	22.7	23.8	23.8
Slovakia	:	26.2	28.1	24.5	23.7	24.8	25.9	:
Finland	25.5	26.0	25.9	26.2	26.3	25.9	25.4	25.8
Sweden	23.0	23.4	24.0	23.4	24.0	24.8	24.1	:
United Kingdom	:	34.6	32.5	32.6	33.9	32.4	33.0	:

∗ vážený priemer

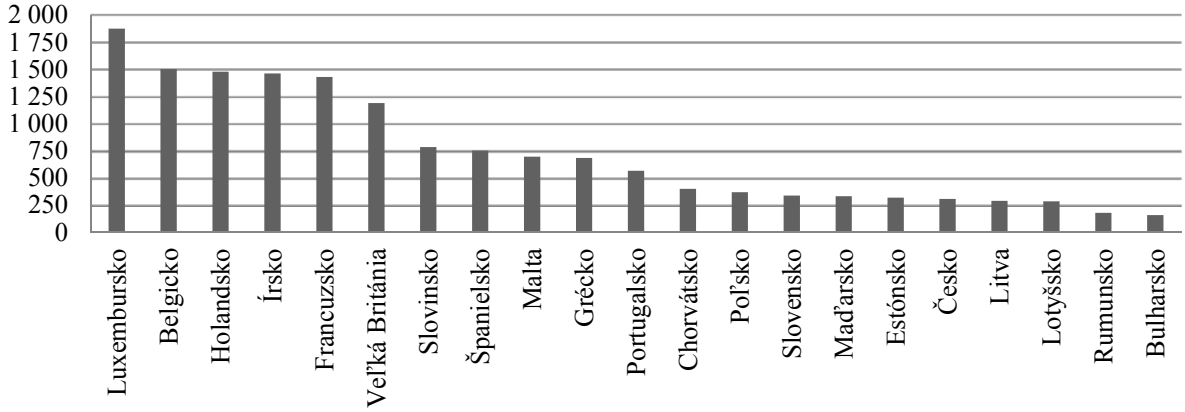
Zdroj: Spracované z údajov http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di12&lang=en

Na základe poukázaných skutočností by bolo vhodné realizovať potrebné opatrenia na spomalenie, prípadne zastavenie prehlbujúceho sa trendu roztvárania nožníc príjmovej nerovnosti medzi lepšie a menej zarábajúcou skupinou obyvateľstva. Práve tento aspekt sa berie do úvahy pri zohľadňovaní, resp. odôvodnení rôznych foriem negatívnej dane.

2 Minimálna mzda a príjmová nerovnosť

Inštitút minimálnej mzdy má veľmi dôležitú funkciu v sociálnej politike štátu. Neadekvátne zvyšovanie minimálnej mzdy môže viesť k prepúšťaniu zamestnancov či k využívaniu „čiernej práce“. Cieľom zákona o minimálnej mzde je zvýšiť príjem nižších vrstiev a zmierniť tak príjmovú nerovnosť. Často je však jej dopad opačný. Stanovená hranica minimálnej mzdy vedie k nárastu „šedej ekonomiky“. Niektorí pracovníci považujú minimálnu mzdu za príliš nízku, a preto radšej pracujú „na čierno“ – znižujú tak vysokú odvodovú povinnosť zamestnávateľov.

Graf 3 Minimálna mzda v EÚ v roku 2013



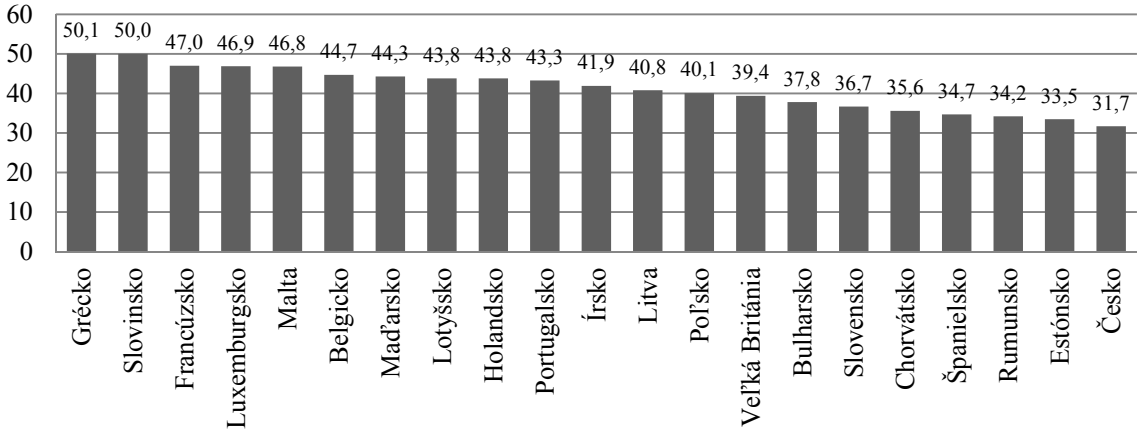
Zdroj: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Minimum_wage_statistics/sk

Zobrazenie minimálnej mzdy sa týka len tých štátov EÚ, ktoré ju uplatňujú, niektoré tento inštitút vôbec neuplatňujú. Štáty môžeme podľa výšky minimálnej mzdy rozdeliť do 3 skupín. Prvú skupinu tvoria západoeurópske štáty, v ktorých dosahuje minimálna mzda úroveň aspoň 1000 €. Druhú skupinu tvoria štáty južnej Európy, v ktorých je minimálna mzda v rozmedzí 500 – 1000 €. Sú to krajiny, ktoré nie sú až tak ekonomicky vyspelé ako štáty západnej Európy, no v týchto krajinách sú mzdy a pracovné podmienky na vysokej úrovni. Do tretej skupiny

zaraďujeme štáty, v ktorých minimálna úroveň nedosahuje ani 500 €. Sú to prevažne krajiny strednej a východnej Európy.

Vyšší podiel minimálnej mzdy na priemernej mzde svedčí o tom, že v takých krajinách je relatívne nižšia príjmová nerovnosť.

Graf 4 Podiel minimálnej mzdy na priemernej mzde v EÚ za rok 2012 v %



Zdroj: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Minimum_wage_statistics/sk

Podiel minimálnej mzdy na priemernej mzde sa v krajinách EÚ pohybuje v rozmedzí od 30 % do 50 %. Najvyšší podiel dosahujú Grécko a Slovinsko kde minimálna mzda dosahuje 50 % priemernej mzdy. Naopak najnižší podiel na priemernej mzde dosahuje minimálna mzda v Českej republike, kde je to len 31,7 %. Minimálna mzda v roku 2012 dosahovala na Slovensku 36,7 % priemernej mzdy. V porovnaní s krajinami EÚ môžeme Slovensko zaradiť medzi krajiny s nižším podielom minimálnej mzdy na priemernej mzde. Žiadna z krajín nepresahuje hranicu 60 %, čo je podľa Medzinárodnej organizácie práce optimálna hranica.

3 Odvodové zaťaženie a zamestnanosť

Vo všeobecnosti aj prostredníctvom správne nastaveného a fungujúceho daňovo-odvodového systému by malo dôjsť k spravodlivejšiemu prerozdeleniu príjmov od lepšie zarábajúcich po menej zarábajúcich daňovníkov. Žiaľ dochádza k tomu, že sa priepasť medzi týmito dvomi skupinami čoraz viac prehlbuje.

Princíp odvodovej politiky spočíva v tom, že z odvodov ekonomicky aktívnych subjektov je financovaná verejná sociálna ochrana. Vo väčšine krajín sú hlavným zdrojom financovania fondov sociálnej ochrany príspevky zamestnávateľov, zamestnancov, samoplatiteľov a štátu, ktorý platí za určité skupiny ľudí.

V európskom modeli neplatí odvody len zamestnanec, ale aj zamestnávateľ. Platenie odvodov je tak rozdelené do dvoch častí. Každý štát využíva inú výšku nominálnych sadzieb odvodov, ktoré slúžia na výpočet odvodov z vymeriavacieho základu.

Tabuľka 2 Nominálne sadzby odvodov vo vybraných štátoch EÚ v roku 2011 v %

	Zamestnanec	**Zamestnávateľ**	**Spolu**
1.Holandsko	37,45	16,33	53,78
2. Slovensko	13,40	35,20	48,60
3. ČR	12,50	37,00	47,50
4. Poľsko	27,21	19,68	46,89
5. Francúzsko	9,90	35,14	45,04

6. Nemecko	20,55	20,98	41,53
7. Švédsko	7,00	31,40	38,40
8. Slovinsko	22,10	16,10	38,20
9. Estónsko	4,00	34,00	38,00
10. Belgicko	13,07	24,77	37,84
11. Španielsko	6,25	31,58	37,83
12. Bulharsko	12,425	23,475	35,90
13. Fínsko	6,70	26,30	33,00
14. Luxembursko	14,05	13,66	27,71
15. Írsko	6,00	10,75	16,50

Zdroj: spracované na základe http://www.ssa.gov/policy/docs/progdesc/ssptw/2012-2013/europe/

Niektoré zo štátov uplatňujú vyššie sadzby odvodov pre zamestnanca, iné pre zamestnávateľa. Sadzby odvodov vyššie pre zamestnávateľa v rozpätí od 10,75% až po 37% uplatňuje napríklad Belgicko, Bulharsko, Estónsko, Fínsko, Švédsko, Francúzsko, Nemecko, Írsko, Slovensko alebo Španielsko. Vyššie sadzby odvodov pre zamestnancov v rozpätí od 14,05% až po 37,45% uplatňuje napríklad Luxembursko, Holandsko, Poľsko a Slovinsko. Tie vyššie odvody, ktoré znáša zamestnanec znižujú jeho disponibilný príjem a môžu vytvárať príjmovú nerovnosť subjektov. Vyššie odvody, ktoré odvádza zamestnávateľ, sú pre neho daňovo uznateľným nákladom/výdavkom. Slovenský zamestnávateľ je zaťažený 35,20% odvodmi platenými za zamestnanca, čo predstavuje druhé najväčšie odvodové zaťaženie vo štátoch EÚ.

4 Príjmová nerovnosť verzus kvalita podnikateľského prostredia

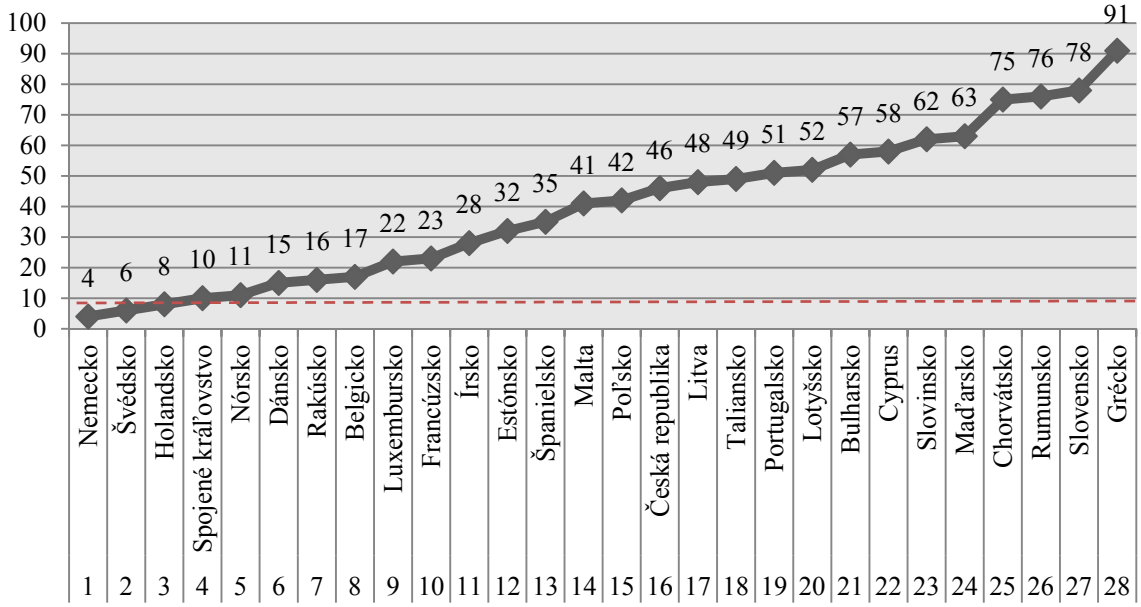
Príjmovú nerovnosť však nemožno spájať len s daňovým, resp. odvodovým zaťažením subjektov. Je potrebné ju posudzovať a riešiť spolu s ďalšími faktormi. Ide napríklad o kvalitu podnikateľského prostredia a vytváranie podmienok pre nové investície v štáte, ktoré v konečnom dôsledku vplývajú na znižovanie príjmovej nerovnosti tvorbou a poskytovaním pracovných príležitostí.

Štát by mal zlepšovať podmienky podnikania a nezameriavať sa pritom len na rast daňového zaťaženia. Mohlo by dôjsť k situácii, keď niektoré subjekty zvážia svoje pôsobenie v určitej krajine a umiestnia, resp. premiestnia podnikateľské aktivity do iných krajín.

Index globálnej konkurencieschopnosti (GCI)

Komplexnejšie posúdenie a vzájomné porovnávanie štátov v oblasti vytvárania podmienok na podnikanie poskytuje ukazovať (index) globálnej konkurencieschopnosti (GCI). Sledovaním 12 faktorov (pilierov) napomáha vytvoriť obraz o konkurencieschopnosti štátu, odhaľuje jeho úskalia a slabé miesta. Súčasťou sledovania konkurencieschopnosti určitého štátu (ekonomiky) je tretí faktor (pilier) – Makroekonomické prostredie, v rámci ktorého sa posudzuje vytváranie podnikateľského prostredia v štáte. Prirodzene tento faktor nepôsobí samostatne, nadväzuje na rad ďalších pilierov akými sú napríklad Inštitúcie, Infraštruktúra, Účinnosť trhu práce a pod.

Graf 5 Index globálnej konkurencieschopnosti (GCI) EÚ-28 za roky 2013-2014



Zdroj: spracovanie dát z dokumentu The Global Competitiveness Report 2012–20013: Full Data Edition is published by the World Economic Forum within the framework of The Global Benchmarking Network. Dostupné na internete http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf.

Ukazovateľ indexu globálnej konkurencieschopnosti poukazuje na umiestnenie Slovenskej republiky, ktoré je žiaľ nelichotivé. Dlhodobým problémov SR je vymožiteľnosť práva, administratívna byrokracia, neprepojenosť verejných inštitúcií, „únik mozgov“ vzhľadom na nedostatočnú atraktívnosť etablovania sa vyštudovaných mladých ľudí, s daňovými obmedzeniami a pod.

Záver a diskusia

Sociálne rozdiely subjektov oslabujú súdržnosť spoločnosti. Subjekty nemajú záujem platiť vyššie dane pokiaľ nebude štátom riešená zamestnanosť/nezamestnanosť a prostredníctvom verejných výdavkov nebudú zabezpečené kvalitné verejné služby. V škandinávskych krajinách je omnoho väčšia dôvera subjektov v štát – a tomu zodpovedá aj ich ochota platiť vyššie dane, za ktoré im štát poskytuje primeranú sociálnu istotu, služby v oblasti zdravotníctva, školstva a pod.

Prehlbujúca sa príjmová nerovnosť v štátoch EÚ vyvíja tlak na aktívnejšie kroky EÚ na jej znižovanie. Príjmová nerovnosť oslabuje dôveru subjektov aj v samotnú existenciu EÚ, v jej hospodársky rast ako aj v rast štátov v EÚ. Práve sociálne postavenie subjektov a prehlbovanie ich príjmovej nerovnosti v členských štátoch (ale aj inde vo svete) je tou pomyslenou hranicou medzi zástancami EÚ a jej odporcami. V niektorých prípadoch je otázne, ako bude EÚ presadzovať niektoré svoje plánované aktivity (napríklad bankovú úniu, fiškálnu úniu).

Na nebezpečenstvo prehlbujúcej sa príjmovej nerovnosti upozornilo aj Fórum v riporte Agenda sveta 2014. Dokonca ju zaradilo medzi desať najzávažnejších rizík sociálnej stability a bezpečnosti sveta.

EÚ by zrejme mala ráznejšie postupovať pri presadzovaní jej záujmov tak, aby sa vytvárali silnejšie a stabilnejšie ekonomiky štátov a už sa viac neroztvárali nožnice medzi bohatými štátmi severu a chudobnými na juhu a východe. Kľúčovú úlohu zohráva ochrana ekonomík jednotlivých štátov. Zjednotenie postupov EÚ pri ochrane ekonomík štátov odhaľovaním daňových únikov a daňových podvodov je priam nevyhnutnosťou. Jednotlivé štáty využívajú

rôzne nástroje a opatrenia, ktorými zabezpečujú vyšší výber daní a eliminujú daňové úniky. Napríklad zavedenie elektronického kontrolného výkazu DPH významnou mierou obmedzuje vyplácanie „nepoctivých" nadmerných odpočtov a napomáha odhaľovať tzv. karuselové podvody v oblasti DPH na Slovensku.

EÚ plánuje zriadiť „čiernu listinu" daňových rajov, voči ktorým bude uplatňovať sankcie. SR už zvýšila zrážkovú daň z 19 % na 35 % na obchody s firmami v daňových rajoch. Viac finančných prostriedkov tak zrejme bude plynúť do štátneho rozpočtu SR.

V záujme znižovania príjmovej nerovnosti štáty zavádzajú vyššie zdanenie lepšie zarábajúcich osôb ako aj firiem vykazujúcich vyšší zisk, resp. obrat. SR zaviedlo daňovú licenciu pre obchodné spoločnosti. Je zameraná na obmedzenie daňových únikov a jej zavedenie súvisí so zistenou situáciou – keď veľké množstvo subjektov pôsobiacich na Slovensku vykazuje daňovú stratu napriek skutočnosti, že obraty týchto spoločností sú vysoké. Výška daňovej licencie závisí od dvoch faktorov – od výšky dosiahnutého ročného obratu obchodnej spoločnosti a od skutočnosti či je spoločnosť platiteľom DPH, alebo nie je platiteľom DPH.

Tiež zavedenie dane z finančných transakcií v eurozóne by malo obmedziť špekulácie finančných inštitúcií pri obchodovaní s cennými papiermi. Slovensko, spolu s ďalšími desiatimi štátmi eurozóny, plánuje zaviesť túto daň už od r. 2015. Mala by priniesť do štátnej pokladnice od 30 – 50 miliónov eur. Finančné transakcie bankového sektora sú zdrojom veľkých ziskov napríklad z požičiavania finančných prostriedkov do odvetví priemyslu, poľnohospodárstva, ale aj obyvateľstvu. Daň za každú finančnú transakciu akcií a neskôr aj dlhopisov by mala byť vo výške 0,1 % z jej objemu, pri derivátoch na úrovni 0,01 %. Tieto tzv. dodatočné daňové príjmy štátu by mohli pomôcť riešiť chudobu a príjmovú nerovnosť. Je však otázne, do akej miery uvedená daň zníži príjmovú nerovnosť. Zavedenie tejto dane si bankový sektor zrejme bude kompenzovať zvýšením poplatkov bankových služieb.

Poďakovanie

Príspevok /výstup vznikol v rámci projektu VEGA č. 1/0008/11 s názvom „Efektívnosť využitia daňových príjmov a verejných výdavkov v nadväznosti na dlhodobú udržateľnosť verejných financií a nové netradičné možnosti rozpočtových príjmov."

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VARIATION OF PUBLIC PROCUREMENTS AS A RISK FOR CONSTRUCTION COMPANIES

Vladěna ŠTĚPÁNKOVÁ[1]

[1] Brno University of Technology, Faculty of Business and Management, Department of informatics, Kolejni 2906/4, 612 00 Brno, Czech Republic, e-mail: stepankovav@fbm.vutbr.cz

ABSTRACT

The following paper focuses on the construction market in the Czech Republic, which is a very specific place for business. Companies which are taking part in this market are exposed to a large number of risks and these risks must be properly and timely identified. The paper focuses on the risk of fluctuations in the number of public procurements and the factors that may influence this variation, or other factors that cause this variation. There are used statistical methods for the analysis of time series. The result is a set of factors influencing fluctuations in public contracts and the possible consequences for companies that deal with these contracts.

Keywords: construction market, public contract, risk, factor

JEL codes: G32

1 Introduction and Literature review

The construction market is characterized by its structure and a large number of subjects that appear on it. Construction includes not only residential buildings, as is usually understood, but this includes the construction of office buildings, roads, bridges, and other structures. Some above-listed building must be made by public procurement, which construction company can apply after fulfilling the necessary requirements. Construction is distinguished as a large amount of construction activities, as well as demands of individual professions in their implementation. It is recognised that the construction market has strong connections with other sectors and markets [1] [2] and therefore it is very important to monitor what proportion of that market orders have and focus on their turnover.

Furthermore, there shows a high sensitivity of demand for purchasing power, and its development and also large capital intensity. There are a large number of entities on the construction market due to the large number of activities and there are a large number of entities that differ not only in size but also the legal form of business.

Activities from construction market may affect the pattern of a country's economy [3] and therefore it is construction area very important. In the Czech Republic the construction sector long-term employs about 400,000 people and has a significant multiplier effect.

The construction market also plays an indispensable role in human settlements and various employment issues [4] and therefore is important to deal with this market and identify risks that threaten him.

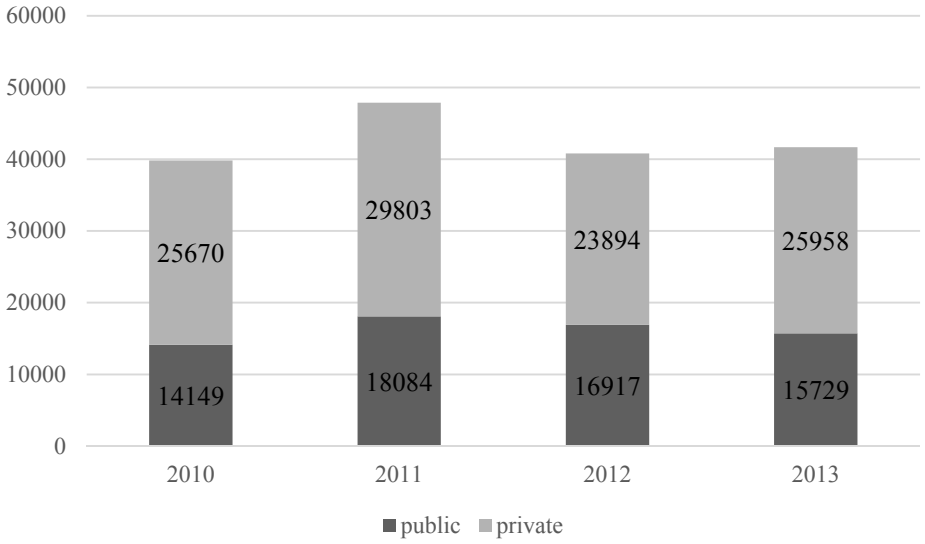
Incorporating construction is by CZ NACE in Section F, this classification replaces from 1.1. 2008 Sectoral economic activity classifications (OKEČ) classification, NACE classification is used in all member countries of the European Union.

There are two basic sources of financing on the construction market:

- Private investors - natural or legal persons (the goal is to produce profit or some other personal benefit);
- public order (order may not be profit, but the main thing is the public benefit of the contract).

The following figure shows, that public procurement accounts around 35% of the volume of implemented construction works and therefore is very important to address public contracts and their development.

Figure 1 New construction projects 2010 – 2013



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1.1 Public procurement

Public procurement is subject to the Public Procurement Act No. 137/2006 and are also affected by directives from the European Union, the most recent changes took place March 28, 2014, when they were in the EU's Official Journal published a new directive on public procurement. These are the following directive:

- Directive of the European Parliament and Council Directive 2014/24 / EU of 26 February 2014 on public procurement and repealing Directive 2004/18 / EC;
- Directive of the European Parliament and Council Directive 2014/25 / EU of 26 February 2014 on the procurement procedures of entities operating in the water, energy, transport and postal services and repealing Directive 2004/17 / EC; and
- Directive of the European Parliament and Council Directive 2014/23 / EU of 26 February 2014 on the granting of concessions.

Czech Republic is obliged to transform these directives into our legal expiry of the period to 18 April 2016. As early as the end of 2014 should be prepared a draft law on public procurement in paragraph wording. Public projects account for more than half of the procurement market. Increasing the efficiency of public construction projects is a critical area of research activity. [5]

However, the public sector cannot be seen to have close relationships with private parties as it may imply cronyism [6] and [7]. The widespread practice of open tenders to procure services and products in public projects puts high priority to bidders' merit, capability and tendering price rather than on previous partnerships. [8] These factors may affect companies which are interested in public contracts and due to cronyism, or other practices, the realization of public contract is not given to the best and most advantageous company.

2 Data and metodology

As input data were used entries published by the Ministry for Regional Development in their records of public procurement carried out in the Czech Republic. Other data, for comparing the impact of public contracts for construction or development of indicators of macroeconomic indicators, was withdrawn from the documents of the Ministry of Industry and Trade, or from statistics published by the Czech static office. The data were processed using MS Excel.

The methods used for data processing were basic and advanced statistical methods used for modelling and development trend of the time series. There were used the first difference (1), correlation coefficient (5) and the tempo of increase (3) and the average tempo of increase (4) and average absolute increase (2). The equations are announced below for time series y_t, for $t= 1, 2,...T$ and x_t, for $t= 1, 2,...T$.

$$y_t = y_t - y_{t-1}, \text{where } t = 2,...T \tag{1}$$

$$\bar{\Delta} = \frac{y_t - y_1}{T - 1} \tag{2}$$

$$k_t = \frac{y_t}{y_{t-1}} \text{ where } t = 2,...T \tag{3}$$

$$\bar{k} = \sqrt[T-1]{\frac{y_t}{y_1}} \tag{4}$$

$$r = \frac{\sum_{i=1}^{n}(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^{n}(x_i - \bar{x})^2 \sum_{i=1}^{n}(y_i - \bar{y})^2}} \tag{5}$$

3 Results and discussion

At first there were analyzed risks in the construction market by using the method of structured interviews and analysis of the external environment and influence diagram. Based on available information published by the Ministry for Regional Development and the Ministry of Trade and Industry and also from the Czech Statistical Office and structured interviews with representatives of construction companies have been identified following risks in Table 1.

Table 1 Treatments and Scenarios

Treatments	Scenarios
Fluctuation of public contracts	Due to the fluctuations in public contracts, the companies which lose the opportunity to realize the public contract decrease employment
Legislative changes	Decrease the number of public contracts
	Administrative difficulty (increase of costs)
	Problems with fulfilment of requirements for public contract
Decrease of construction production	Decrease of total amount of contracts
	Decrease of finance

Based on the identification of risk there was selected risk procurement and its fluctuations with regard to the other two risks that may affect it.

There were monitored the progress of procurements during the years 2006 to 2013, data from 2014 are already partly available, but it is not appropriate to recalculate the entire entry, although the development of public contracts during the year varies at regular intervals.

For procurement of construction only is observed their development of amount during the time. As it is shown in Figure 2 and 3 in 2007, there is a decrease in the number of contracts and their total invested amount. This decrease was affected by changes in legislation, which is important for the conditions and requirements. One of the risk factors that influence the development and behavior of public procurement can therefore be planned legislative changes. Further decline of public contracts since 2008 is due to the global crisis.

Figure 2 Public construction projects – CZK

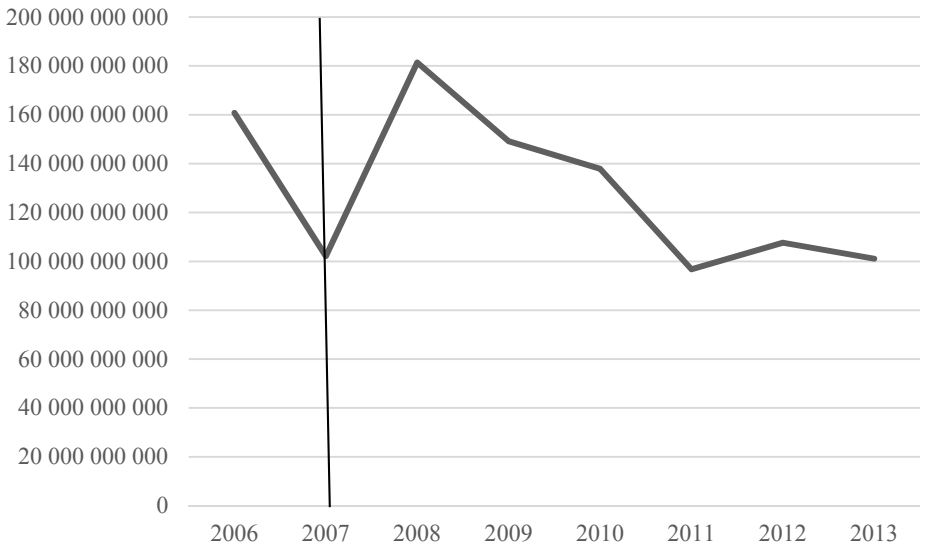

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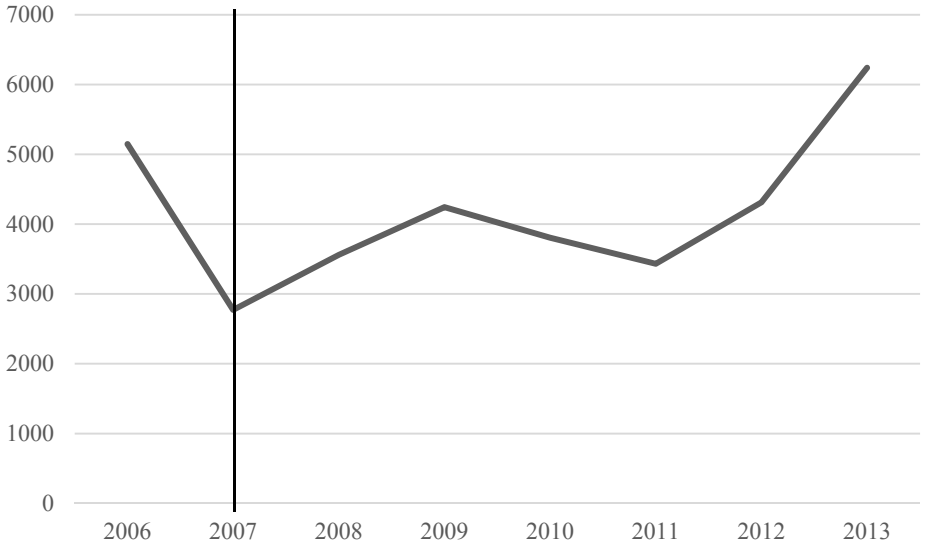
Figure 3 Public construction projects – amount



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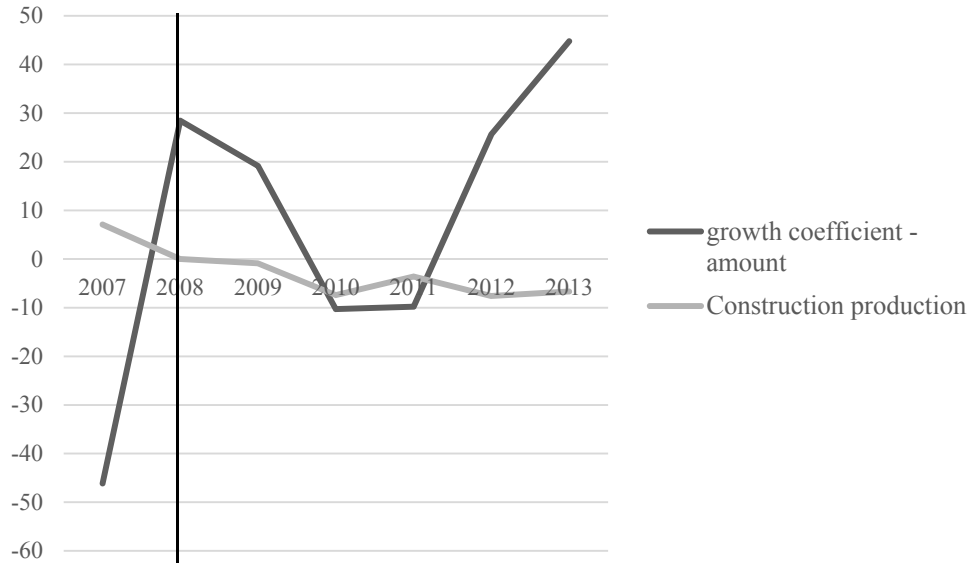
Impact on public procurement in the construction industry has also state, which is the largest customer of these contracts by the contracting authority. The development is also affected by the current economic situation and the growth and drops of GDP.

Another monitored indicator is the construction production. In monitored years there was a crisis not only in the construction industry and is thus apparent steady decline in construction output since 2008. Among the number of contracts and a decline in construction output can be observed negative dependence, since the correlation coefficient is equal to -0.59.

Figure 4 Development of construction production and public projects



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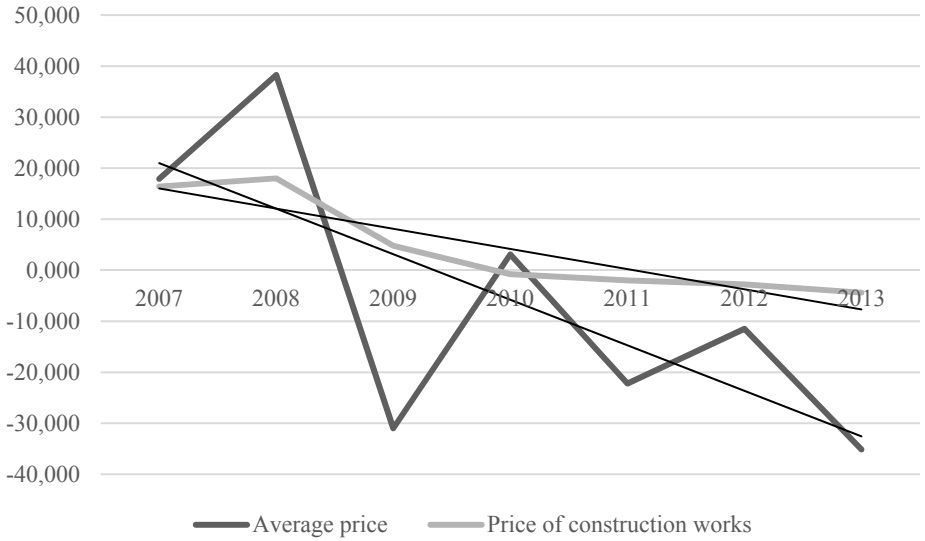
If we focus on the development of prices of construction contracts, it is clear that relates to the overall development of prices for a construction works in the Czech Republic. The correlation coefficient is equals 0.81, indicating a very strong positive correlation between the variables. If the trend is still decreasing prices of construction works, we can expect even lower values at the average price of a public contract.

It is therefore necessary to monitor the development of the construction works prices, which is influenced declining construction output (correlation coefficient equals 0.84) which is influenced by the growth or decline in GDP (correlation coefficient for the period 0.64). In the Figure 5 is also depicted the trend curves.

Figure 5 Development of average price and price of construction works



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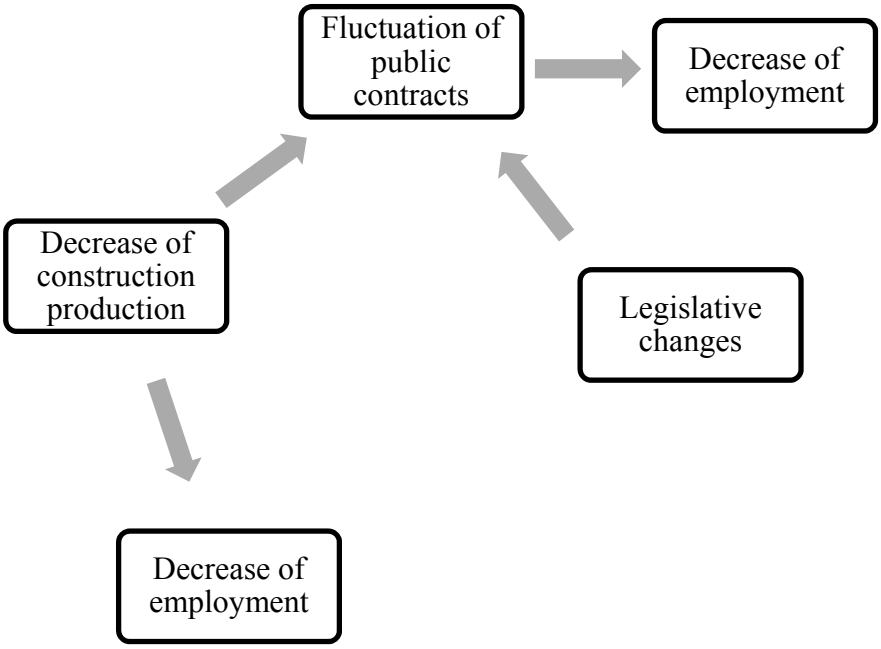
Graphically, we can illustrate relationships between risks in the Figure 6.

Figure 6 Relationship between risks



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4 Conclusion

Construction branch is very heavily tied to the public procurement. Its total volume determined almost thirty five percent of public contracts. If there is the effort to maintain this trend of growth of amount and prices, it is necessary to pursue the planned legislative changes that must be incorporated within the Czech legislative, according to the above requirements of the European Union. If these changes will be in time clearly incorporated it will cause no decrease in the number of published public procurement, which would have affected the decline in construction output and thus GDP.

The main factor limiting the economic stability of construction companies is unstable legislation and non-conceptual state. This is especially the changes in investment policy that changes periodically according to the staffing of key positions representatives of the public sphere, as well as frequent personnel changes in senior positions of public administration.

For the second key factor that limits the economic stability of the firms can be considered low procurement prices, which are the result of the selection procedure, in which the key, sometimes the only criterion, is the lowest price.

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UPLATŇOVANIE VYBRANÝCH DANÍ PRI OCHRANE ŽIVOTNÉHO PROSTREDIA

Juraj VÁLEK[1]

[1] Ekonomická univerzita v Bratislave, Národohospodárska fakulta, Katedra financií, Dolnozemská cesta 1, 852 35 Bratislava; e-mail: valek.euba@gmail.com

ABSTRACT

In most EU countries the largest share of environmental taxes constitute energy taxes. In choosing this type of tax, the countries of central Europe, while rank among countries with lower selection, the EU average, however, lag behind. Another type of environmental taxes are taxes on transport, mainly road tax, taxes on aviation, or special taxes when buying cars. The last two types of environmental taxes that are not yet in most EU countries are still underrepresented, as taxes on pollution of air, water, waste, excessive noise or a tax on the consumption of water resources, logging and quarrying. The article discusses the current issues of environmental taxes in selected EU countries, examining their impact on the revenue side of the state budget, as well as the degree of environmental protection through the application of selected indirect instruments.

Keywords: energy taxes, transport taxes, taxes on pollution sources, taxes on resource consumption, environmental protection

JEL codes: F15, G18, H20

1 Úvod

Existencia systému environmentálneho zdaňovania určitých oblastí a odvetví, ktoré poškodzujú životné prostredie je nesmierne dôležitá. V súčasnej dobe čoraz viac rastie potreba ochrany životného prostredia najmä v súvislosti s rastúcou výrobou a dopravou. Preto jednotlivé vlády pristupujú k systému environmentálneho zdaňovania s cieľom zabraňovať znečisťovateľom poškodzovať životné prostredie. Jedným z nástrojov zabraňovania znečisťovania životného prostredia je zavedenie environmentálnych daní. Najväčší podiel výnosov z environmentálnych daní sa darí dosahovať v oblasti daní z energetických produktov.

Je zároveň potrebné skúmať, ako sa mení správanie ľudí so stúpajúcim povedomí o životnom prostredí. Znečistenie ovzdušia patrí v Európe k jedným z najväčších problémov z oblasti znečistenia. Odhaduje sa, že v roku 2010, viac ako 400 000 ľudí zomrelo predčasne na následky znečisteného ovzdušia. [3]. Zlá kvalita ovzdušia zvyšuje náklady na zdravotnú starostlivosť, znižuje produktivitu hospodárstva a poškodzuje plodiny a budovy. Právne predpisy EÚ zaisťujú vysoké štandardy pre kvalitu ovzdušia. Členské krajiny sú povinné sledovať množstvo znečisťujúcich látok v ovzduší a zabezpečiť, že nedôjde k prekročeniu limitov.

2 Teoretické východiská environmentálneho zdaňovania

Environmentálne dane môžeme klasifikovať podľa viacerých kritérií. [8]. Podľa druhu poznáme dane pigouvianáske, nepriame environmentálne dane a dane s neplánovaným ekologickým dopadom. Pigouvianáske dane sú stanovené v takej výške, aby sa vyrovnali rozdielu medzi súkromnými a spoločenskými nákladmi. Mali by motivovať spotrebiteľov

a výrobcov, aby okrem súkromných nákladov vzali do úvahy aj spoločenské náklady. [7] Predstavujú skôr teoretický ideál, pretože hlavným problémom je nastavenie ceny, resp. hodnoty znečistenia. V praxi by mali byť uvalené na jednotku znečistenia a cieľom týchto daní je obnovenie efektivity využitia internalizácie externých efektov. Znižujú jednak množstvo vyrobených a spotrebovaných škodlivých produktov a stimulujú k zavedeniu nových technológií, ktorými sa emisie znižujú. V praxi je preto problém s ich zavedením. Účelom nepriamych environmentálnych daní je nepriamo ovplyvňovať správanie sa k životnému prostrediu. Nie sú priamo uvalené na škodlivú látku, ale na použitie nejakého zástupného faktora napr. na použitie škodlivých vstupov alebo spotrebu výrobkov. Dane, ktoré neboli primárne zavedené kvôli ochrane životného prostredia, ale v konečnom dôsledku po daňovom presune resp. dopade majú ekologicky pozitívny vplyv nazývame dane s neplánovaným ekologickým dopadom.

Podľa predmetu zdanenia ich rozdeľujeme do skupín ako dane z motorových palív, z automobilov, z energetických surovín, z uhlia, zo zemného plynu, elektrickej energie a z emisií poplatky za ťažbu nerastných surovín, platby za využívanie životného prostredia a pod.). Podľa techniky zdanenia poznáme emisné povolenky a poplatky, kde ide o zaťaženie znečisťovateľov emisnými povolenkami (cenné papiere, ktoré umožňujú exhalácie do ovzdušia), ďalej výrobkové dane, ktoré zaťažujú určité výrobky vo fáze výroby aj spotreby, poplatky spotrebiteľov verejných služieb, správne a administratívne (miestne) poplatky a nezdaniteľné časti základu dane, odčítateľné položky či inak určené čiastky, ktoré nepodliehajú zdaneniu. Podľa cieľu sú rozdelené na účelové environmentálne dane, ktoré sú zavádzané kvôli zvýšeniu daňového výnosu a sú ďalej alokačne využívane k environmentálnym účelom, ako aj stimulačné environmentálne dane, ktoré stimulujú znečisťovateľa k pozitívnemu správaniu sa. Zaraďujeme sem aj doplnkové environmentálne dane, ktoré majú fiškálny alebo stimulačný efekt. A sú kombináciou účelových a stimulačných environmentálnych daní. [6]

3 Uplatňovanie environmentálnych daní pri ochrane životného prostredia

Environmentálne dane v rámci Európskej únie (EÚ) sú uvalené predovšetkým na energetické produkty, v oblasti dopravy a v oblasti znečistenia na komodity, ktoré zaťažujú životné prostredie a taktiež v oblasti ťažby prírodných zdrojov. Z tabuľky 1, vypracovanej z dostupných údajov z Eurostatu vyplýva, že úhrnný príjem do verejných rozpočtov členských štátov z environmentálnych daní od roku 2004 vzrástol z úrovne 275,2 miliardy eur na úroveň 310,3 mld. eur. Približne 75% týchto výnosov tvorili dane z energetických produktov, 20% dopravné dane zahrňujúce predovšetkým dane vzťahujúce sa k vlastníctvu a užívaniu motorových vozidiel a 5% dane zo znečisťovania a využívania zdrojov, medzi ktoré patria okrem iného aj dane z ťažby surovín, dane zaťažujúce emisie do ovzdušia, dane z hluku alebo zdanenie nakladania s odpadmi. Výnosy z daní z energetických produktov a dopravných daní v období rokov 2002 až 2007 stabilne rástli. V nasledujúcom období dochádzalo k poklesu výnosov najmä v dôsledku hospodárskeho útlmu a tento trend bol zvrátený až v roku 2009.

Vo väčšine krajín EÚ najväčšiu časť environmentálnych daní tvoria energetické dane (prevažne spotrebné dane na pohonné hmoty). V európskych krajinách sa v priemere vyberie 1,91% z uvedenej dane, zatiaľ čo na Slovensku sa v roku 2012 vybralo 1,52% čo predstavuje relatívne nižší výber oproti európskemu priemeru. Ďalším typom environmentálnych daní sú dane súvisiace s dopravou, hlavne cestná daň. Zahŕňame sem však aj špeciálne dane pri kúpe automobilov (napr. pri dovoze), dane v leteckej doprave. Výber týchto daní je na Slovensku šiesty najnižší v rámci EÚ – vzhľadom na veľkosť ekonomiky. Kým v krajinách EÚ sa v priemere na tomto type daní vyberie 0,53% z HDP, na Slovensku to je iba 0,19% z HDP.

Nižší výber ako Slovensko mali v roku 2012: Rumunsko 0,16% z HDP, Česká republika a Luxembursko zhodne 0,14% z HDP, Estónsko 0,06% z HDP a Litva 0,05% z HDP.

Tabuľka 1 Výnosy z environmentálnych daní v mld. eur v EÚ 27 (2004 – 2012)

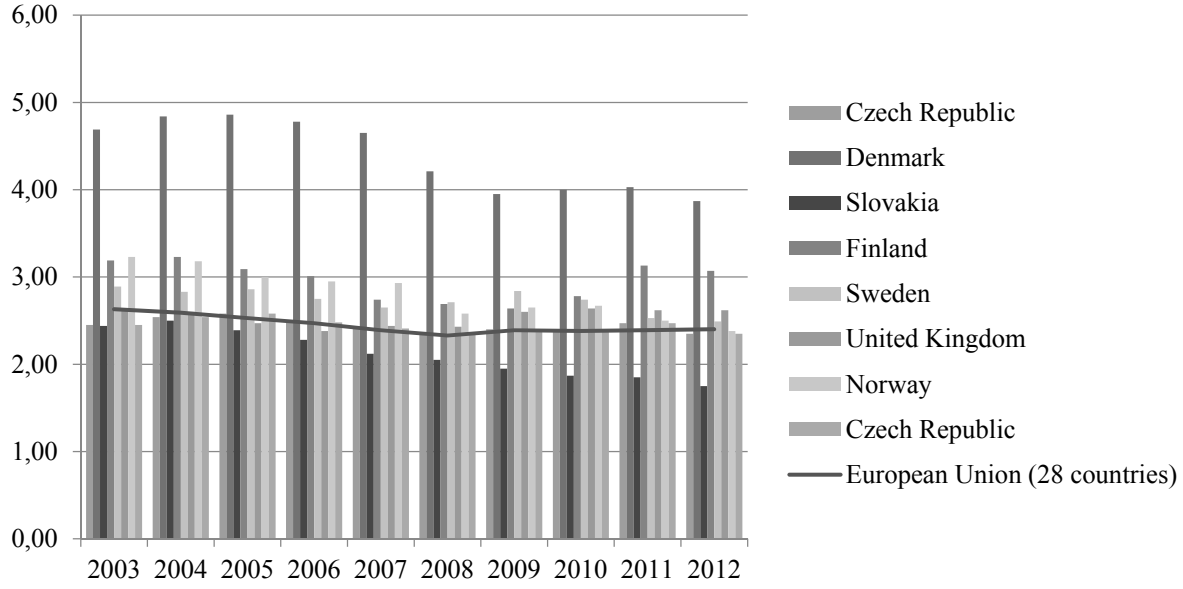
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Dane z energetických produktov	210,6	212,5	217	219,5	215,6	213,3	221,5	228	233
Dopravné dane	55,8	59	62,5	67,3	64,4	58,4	60,7	63,1	64,2
Dane za znečisťovanie a využ. zdrojov	8,8	9	9,9	10,1	10,2	9,5	10,2	11,5	13,1
Spolu	275,2	280,5	289,4	296,9	290,2	281,2	292,4	302,6	310,3

Zdroj: Eurostat – vlastné spracovanie[1]

Energetické dane reprezentujú kategóriu, ktorá zahŕňa daň na výrobu energie a na energetické produkty využívané na prepravné ako i na stacionárne účely. V oblasti prepravy predstavujú benzín a nafta dva najdôležitejšie energetické produkty. K energetickým produktom používaným na stacionárne účely sa zaraďujú elektrina, uhlie, vykurovanie a oleje a zemný plyn. Patria sem aj dane na biopalivá a na ostatné formy energie z obnoviteľných zdrojov. Daň z emisie z oxidu uhličitého CO2 je zahrňovaná do kategórie energetických daní a nie daní týkajúcich sa znečisťovania životného prostredia. Jednou z príčin tohto zaradenia je problematickosť jednoznačného prostredia. Energetické dane majú najvyšší podiel na príjmoch z environmentálnych daní, čo predstavuje 75% všetkých daní. Tieto dane boli obzvlášť významné v Litve, Luxembursku, a v Českej republike, kde tvoria viac ako 90% príjmov z environmentálnych. Na Malte, Írsku, Chorvátsku a v Holandsku to predstavovalo 50 – 55%, a v Nórsku 48%. Tento rozdiel je spôsobený uplatňovanými daňami zo zemného plynu a elektriny. [5].

Dopravné dane (s výnimkou pohonných prepravných hmôt) ako kategória environmentálnych daní zahŕňa predovšetkým dane spojené s vlastníctvom a užívaním motorových vozidiel. Dane vzťahujúce sa na ostatné prepravné zariadenia ako sú lietadlá, lode spadajú taktiež do tejto kategórie a to v prípade, že sú v súlade so všeobecnou definíciou environmentálnych daní. Môžu byť jednorazové alebo opakujúce sa. Jednorazovo vybrané sú tie, ktoré súvisia s dovozom alebo predajom zariadení. K príkladom opakujúcich sa daní patrí ročná daň z motorových vozidiel. Dopravné dane tvoria druhý najvýznamnejší podiel na celkových výnosoch z environmentálnych daní. Vo väčšine štátov tento podiel predstavuje 21 %, avšak existujú aj štáty v ktorých tento podiel je výrazne vyšší, napr. na Malte 43 %, v Dánsku 37 % a rovnako v Nórsku 48 %. Najmenší podiel dopravných daní na celkových príjmoch boli v Litve a v Estónsku (menej ako 4%). [5].

Graf 1 Príjmy environmentálnych daní ako % HDP

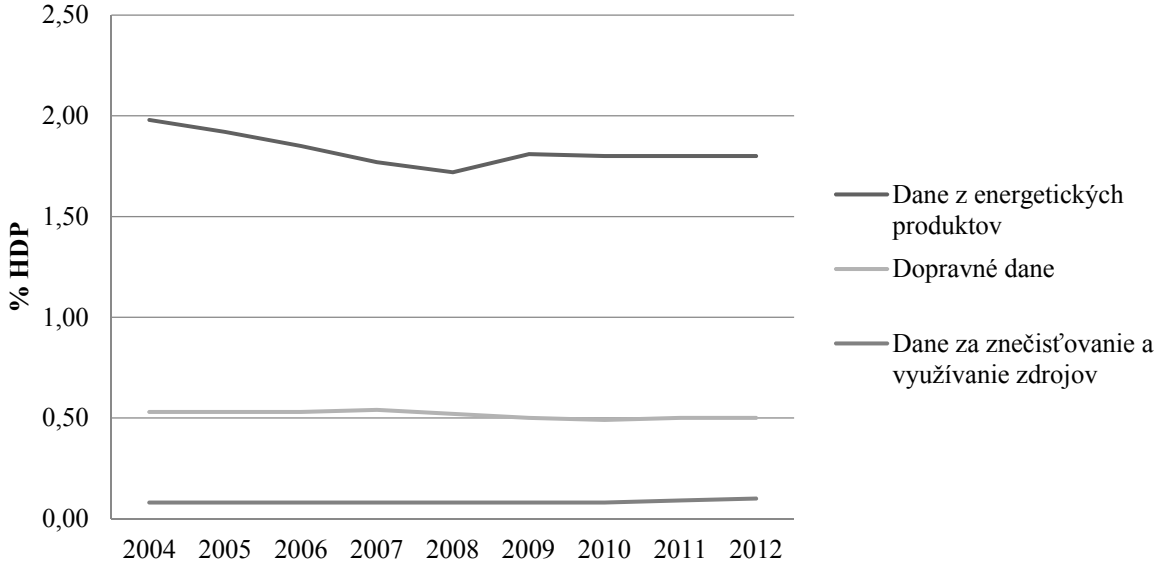


Zdroj: Spracované na základe údajov z Eurostatu [1]

Do skupiny daní týkajúcich sa znečistenia životného prostredia spadajú dane týkajúce sa nadmerného alebo odhadnutého množstva emisií v ovzduší a vo vode, zaobchádzanie s pevným odpadom a hluk. Mazacie oleje nie sú využívané na energetické účely a preto dane z mazacích olejov je najlepšie zaradiť do skupiny daní znečisťujúcich životné prostredie. V prípade, že dôjde k ich rozliatiu, hrozí kontaminácia pôdy a vody. Daňové príjmy spojené s daňou uvalenou na mazacie oleje je niekedy ťažké jednoznačne stanoviť. Daň z prírodných zdrojov predstavuje kategóriu, ktorá v sebe zahŕňa dane spojené s ťažbou alebo používaním prírodných zdrojov (voda, lesy, fauna, flóra a pod.) nakoľko tieto aktivity súvisia s vyčerpávaním prírodných zdrojov. Dane týkajúcich sa znečistenia životného prostredia a dane z prírodných zdrojov predstavujú pomerne malý podiel (4%), avšak aj v tomto prípade sú členské štáty, kde tento podiel nie je zanedbateľný, napríklad v Chorvátsku 20 %, v Holandsku 14 % a na Islande 16 %. Vo Švédsku, Českej republike, Taliansku, Rakúsku, Luxemburgsku a Portugalsku tento podiel predstavuje 1 %, zatiaľ čo Grécko a Cyprus nedosiahol žiadne príjmy z tohto druhu dane. [5].

Medzi environmentálne dane patrí aj daň z CO_2. V oblasti energetických surovín došlo k zavedeniu dane z CO_2 najprv v severských krajinách, a to vo Fínsku, Švédsku a Dánsku, neskôr začala byť uplatňovaná taktiež v Írsku. Následne bola táto daň v určitej podobe aplikovaná vo Veľkej Británii, Slovinsku a Holandsku. V Estónsku je zavedený poplatok z emisií CO_2. Snahy uvaliť daň na CO2, resp. daň na energie plošne ostali v celej Európskej únii viac-menej bez úspechu, a to až do roku 2003, kedy bola schválená a prijatá smernica 2003/96/ES o zdanení energetických produktov a elektriny. V neposlednom rade bola pre efektívnu implementáciu systému environmentálneho zdaňovania na úrovní Európskej únie prijatá environmentálna daňová reforma. Táto reforma má za následok rast výnosov z daní, je nástrojom vyrovnávania štátneho rozpočtu a pomáha napĺňať ciele pre udržateľnosť v čase. Na grafe 2 možno pozorovať pomer výnosov environmentálnych daní k HDP. Sledujeme tu protichodný trend oproti pozorovaniu absolútnych hodnôt výnosov, keďže do roku 2008 HDP rástlo rýchlejšou mierou ako výnosy zo sledovaných daní. Tento trend sa však v rokoch 2008 – 2009 krátkodobo obrátil, a po spomínanom roku nadobudol stabilnú tendenciu. Väčšina členských štátov dosahuje príjem z environmentálnych daní v rozmedzí 1,5 - 3 % HDP. Priemerný podiel environmentálnych daní na HDP dosiahol úroveň 2,43 %.

Graf 2 Pomer výnosov environmentálnych daní ku HDP v EÚ 27 (2004 – 2012) v %



Zdroj: Eurostat – vlastné spracovanie[1]

Environmentálne dane môžu byť obzvlášť cenné tam, kde je potrebné zaviesť zmeny v správaní na veľký počet výrobných činností a spotreby. Náklady na priame regulácie by v týchto prípadoch boli veľké, nákladné a zabraňujúce dosiahnuť želateľný efekt. Okrem toho ak činnosti, ktoré majú byť regulované sú príliš rôznorodé, spoločnosť môže výrazne získať zabezpečenie zo zmeny týchto škodlivých aktivít. I v iných oblastiach môžu trhové nástroje pôsobiť nedostačujúco. Na druhej strane však priamy zákaz môže byť podstatne jednoduchšie implementovateľný a vynútiteľnejší ako environmentálna daň. Komplexné daňové štruktúry môžu byť nákladné na prevádzkovanie a daňové hranice na produkty s minimálnou a maximálnou sadzbou sú vždy otvorené pre sociálne nehospodárne vedenie sporu. Okrem toho môžu nedostatočne veľké daňové stimuly dosiahnuť malé zmeny v správaní jednotlivcov. Firmy teda nemusia brať do úvahy environmentálne dane vo vzťahu k životnému prostrediu, pri rozhodovaní v oblasti používaných technológií. Je však potrebné zavedenie dane ako nástroja na ochranu životného prostredia, pretože to vychádza zo skutočnosti, že trh nie je sám o sebe schopný stimulovať ekonomické subjekty k ekologickému správaniu. Podniky, ktoré vyrábajú svoje výrobky šetrne k životnému prostrediu, sú kvôli vyšším nákladom znevýhodňované pred tými, ktoré vyrábajú neekologicky. Tie naopak dosahujú vysoké zisky.

3 Podpora ekologickejšieho správania prostredníctvom iných opatrení

Podpora ekologickejšieho správania sa prostredníctvom daňovej politiky je len jednou z mnohých opatrení, ktoré sa v súčasnosti uplatňujú. Napríklad v druhej polovici roku 2014 bol spustený projekt EveryAware, ktorý v najbližších siedmich rokoch (2014-2020) EÚ podporí sumou 80 mld. eur a poskytne ľuďom jednoduchý a presný nástroj na meranie kvality ovzdušia a hluku. [3]. Získali finančné prostriedky prostredníctvom siedmeho rámcového programu EÚ pre výskum a technologický vývoj (2007-2013), ktorý má pokračovanie v novom programe EÚ pre výskum a inovácie, Horizont 2020. Nazhromaždené údaje sú k dispozícii pre všetkých občanov, vedcov a orgány a každý, kto sa s údajmi dostane do kontaktu, získa lepší prehľad o životnom prostredí. Výstupom projektu sú dve aplikácie. Aplikácia AirProbe sleduje vystavenie obyvateľstva znečistenému ovzdušiu a aplikácia WideNoise slúži na meranie hladiny hluku. Týmto opatrením by každý môhol vytvoriť, zhromažďovať a zdieľať údaje pre spoločné dobro.

Zároveň sú v rámci členských štátov EÚ stále väčšie požiadavky k trvalej udržateľnosti pre biomasu[1], ako prostriedku na minimalizovanie problémov, akými sú odlesňovanie či nárast emisií skleníkových plynov. Bioenergia vytvára menšie škody na životnom prostredí, ako technológia, ktorú nahrádza. Hoci biomasa tvorí 50% objemu obnoviteľných zdrojov energie v EÚ, nepostačujúce účtovné pravidlá pre uhlík spôsobili, že môže byť importovaná aj z nečlenských krajín Kjótskeho protokolu ako napr. USA. Vývoz biomasy z USA do Európy sa v minulom roku zdvojnásobil, pričom neexistujú žiadne záruky, že pri jej výrobe sa nepoužilo aj nelegálne vyťažené drevo. Existuje snaha o stanovenie jednotného celoeurópskeho inšpekčného režimu pre nezákonne dovážané drevo. Pašované výrobky z dreva sú plodmi odlesňovania, ktoré je zodpovedné za 17% všetkých človekom vyprodukovaných emisií skleníkových plynov a je to o 50% viac emisií než z lodí, leteckej a pozemnej dopravy spolu. Nelegálna ťažba dreva rozkvitá a tvorí 15 - 30% celosvetovej produkcie lesného hospodárstva. Nedávna správa Programu OSN pre životné prostredie/Interpolu hovorí o obrate v objeme medzi 30 až 100 mld. dolárov. [2]. Je nevyhnutná harmonizácia a určenie príslušného orgánu, prijatie sankcií a kontrola spoločností v každom členskom štáte EÚ. Je to však problematické predovšetkým pre rozdielnosť krajín či už geografických alebo ekonomických záujmov.

4 Záver

Globálnym problémom je to že každý rok dokončíme v tzv. ekologickom dlhu. Tento vplyv sa vyjadruje prostredníctvom plochy zemského povrchu, na ktorú si nárokujeme svojimi každodennými aktivitami a konzumným životným štýlom. [4]. Predstavuje celkové množstvo územia potrebného na zabezpečenie všetkého čo spotrebúvame (ako je energia, voda, oblečenie, potraviny, materiály) a na zneškodnenie odpadu, ktorý pritom vytvárame. Vyčerpávame objem ekologických zdrojov, myslíme tým komodity ako sú pôda, ryby, lesy, čistá voda, ale aj o zmena klímy a zachytávanie a ukladanie CO2. Do polovice sedemdesiatych rokov ľudia neprekračovali pomyselnú ekologickú hranicu. V priebehu posledných štyroch desaťročí však zanechali väčšiu ekologickú stopu, a rastúca populácia a zvýšená spotreba spôsobili, že „Deň ekologického dlhu“, je každým rokom skôr. Ak sa naozaj odrazíme k prechodu na efektívne využívanie zdrojov a trvalo udržateľnú spoločnosť, je možné, že sa nám podarí znížiť plytvanie zdrojmi na Zemi. Cieľom by mala byť snaha o predchádzanie nákladovo riešených problémov ex post. Dôležité je prijímať opatrenia ex ante, ktorých nákladovosť je nižšia a medzi ktoré sa v súčasnosti významne zaraďujú aj environmentálne dane.

Environmentálne zdaňovanie odvetví produkujúcich škodlivé látky a následné znečistenie životného prostredia je v súčasnej dobe nevyhnutné. Vzhľadom k rastúcemu znečisteniu je potrebné, aby príslušné orgány aktívne pracovali na zavádzaní nástrojov a opatrení proti znečisťovaniu životného prostredia. Účinným nástrojom v oblasti znižovania podielu znečistenia v niektorých odvetviach ekonomiky je zavedenie environmentálnej dane z výroby a využívania vybraných produktov.

Poďakovanie

Príspevok bol spracovaný v rámci riešenia vedeckovýskumného projektu VEGA č. 1/0008/11 Efektívnosť využitia daňových príjmov a verejných výdavkov v nadväznosti na dlhodobú udržateľnosť verejných financií a nové netradičné možnosti rozpočtových príjmov. Obdobie riešenia projektu 2011 – 2014.

[1] V oblasti energetiky a priemyselnej výroby sa pojem biomasa vzťahuje na biologický materiál, ktorý môže byť využitý na výrobu energie, palív, alebo inak priemyselne spracovaný.

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TAX ASPECTS OF CROSS-BORDER HYBRID INSTRUMENTS

Miroslava ZÁHUMENSKÁ[1]

[1] University of Economics, Faculty of National Economy, Department of Finance, Dolnozemská cesta 1, 852 35, Bratislava, Slovakia, e-mail: miroslava.zahumenska@euba.sk

ABSTRACT

Nowadays the EU and the OECD have an effort to prevent tax avoidance and profit shifting by action plans. One of the areas, they have focused on, are cross-border hybrid financial instruments. Cross-border hybrid financial instruments are used by companies to exploit a different tax treatment of payments in two jurisdictions in order to achieve a non-taxation of these payments. Our paper deals with an analysis of basic cross-border hybrid transfer schemes. An aim of this paper is to evaluate tax impacts of stricter rules introduction on companies related to hybrid financial instruments.

Keywords: hybrid instruments, debt, equity, taxation

JEL codes: H26

1 Introduction

One of the most important decisions making of a company is a decision about financing. Generally a company is deciding between financing by a debt or equity. Both include significant tax impacts that should be taken into account. Financing through debt provides tax deductible expenses in a form of interest expenses. However for the company – receiver of these interests – it represents a taxable income. On the other hand equity is more expensive since payments resulting from investment into equity – dividends are not tax deductible expenses. But for the company – receiver of dividends it is generally a tax exempt income.

There are substantial differences in domestic legislations of individual countries. Some of them are differences in the tax treatment of instruments, transfers or entities. These resulted into creation of hybrid mismatch arrangements that can contain hybrid entities, dual residence entities, hybrid instruments and hybrid transfers. [11] Hybrid instruments represent a financial instruments that are differently treated for tax purposes. In one country they are treated as debt and in another as equity. Companies are using these instruments as a combination of advantages of debt and equity financing in order to achieve a tax advantage in a cross-border transaction.

In cross-border transaction hybrid instruments can be used as a tool for an international tax planning for multinational companies, i.e. to achieve lower worldwide corporate income tax liability. Such tax avoidance schemes can be an object of prevention. [8]

2 Literature Review

Gelder and Niels define hybrid finance instrument as an instrument that is considered to be a debt and the payment on the instrument is tax deductible in one country and it is considered to be an equity and the payment is a tax exempt dividend in the second country. [7] They have analysed tax treatment and characterization of equity and debt in the Netherlands where definition of debt and equity is based on civil law classification. In the next part of the paper

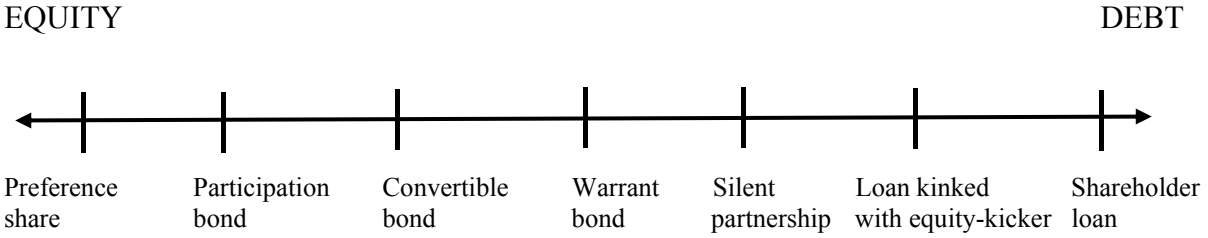
they have analysed tax treatment of hybrid instruments in Netherlands. There are not specific tax rules for hybrid finance instruments but there are specific rules for application of participation exemption to hybrid finance instruments, rules for limitation interest deduction,... Authors suspect that Netherlands will remain an attractive jurisdiction for international tax planning through hybrid finance instruments because Dutch lawmaker does not consider to change tax legislation in the near future.

Bundgaard tends to the definition that hybrid financial instruments are financial instruments which have economic characteristics that are inconsistent with the classification implied by its legal form. [2] In his paper he is mainly analysing whether payments from hybrid instruments can benefit from the Interest and Royalties Directive and Parent-Subsidiary Directive. According to the Interest and Royalties Directive in Art. 4, the source state has a right to deny benefits with regards to use of common types of hybrid financial instruments. [14][1] Bundgaard holds the opinion that in this Directive still remains an uncertainty regarding the interpretation for some types of hybrid financial instruments. Also according his opinion EU member states cannot narrow the scope of the Parent-Subsidiary Directive by way of reclassification of the yield from hybrid financial instruments.

Johannensen states that differences in legislations between countries result to creation of hybrid financial instruments that have characteristics of debt and equity [8]. For example a perpetual loan can be treated in some countries as equity capital is never paid out. And in other countries it can be treated as debt because holders will not own voting rights.

Klostermann is providing an overview of hybrid financial instruments (see Figure 1).

Figure 1 Hybrid financial instruments



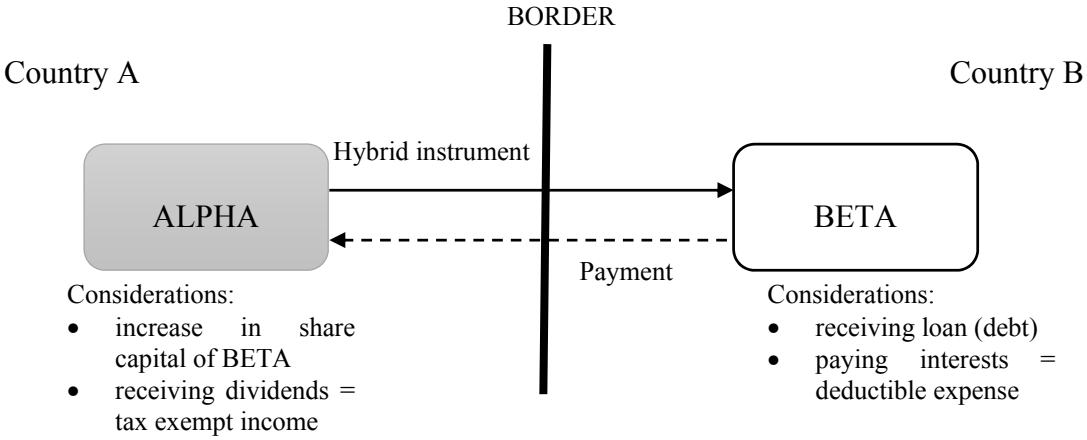
Source: based on [9]

3 Methodology

The final effect of a hybrid instrument employment can be a deduction of an expense payment arising from a loan in the first country and at the same time its non-inclusion in the taxable income in the second country. Using of such arrangements is called deduction/no inclusion scheme.

[1] For example, these payments are excluded: distribution of profits, payments from debt-claims that carry a right to participate in the debtor´s profits, payments from debt-claims that entitle a creditor to exchange his right to interest for a right to participate in the debtor´s profit,…

Figure 2 Deduction/no inclusion scheme



Source: author

Figure 1 describes a situation where the company ALPHA from a country A provides an amount of money using hybrid instrument to the company BETA from a country B. Company ALPHA is a tax resident of the country A and the company BETA is a tax resident of the country B. The used hybrid instrument has characteristics of debt and equity. Country A is considering it to be an equity and country B is considering it to be debt. From a tax point of view interest payments are tax deductible expenses in country B, therefore BETA is enabled to lower its tax base. Simultaneously this payment represents a tax exempt income for ALPHA as received dividends are not subject to tax according to the tax law. The result of this scheme is a non-taxation of the payment in any country.

4 Results

4.1 Tax treatment of hybrid instruments in Slovak Republic

In Slovakia there are no specific rules applying to hybrid financial instruments. Generally interests on debts relating to the business activity are tax deductible, i.e. they are considered as tax deductible expenses for the payer. Interests paid to the non-resident are subject to withholding tax amounting 19 % (or 35 %). Slovakia has implemented articles of the Interest and Royalties Directive into a tax law. According to this, interests paid to the non-resident are tax exempt if they are paid by an artificial person from Slovakia to the resident of other EU country, to a beneficial owner and it exists a minimal 25% share in equity within the following 24 months between them. [1].

Under the Slovak Income Tax Law, a dividend is defined as a share in the profit that is paid to shareholders or to members of a statutory body or supervisory board (there are no special provisions regarding hidden profit distribution). Dividends paid are not tax deductible expenses, i.e. these payments are not enabled to lower tax base of the payer. Received dividends are not subject to tax.

In Slovakia a general anti-avoidance rule is applied, i.e. the substance-over-form[2]. Adoption of this rule was recommended by the European Commission and it should be adapted to domestic and cross-border transactions between EU member states and in transactions with third

[2] It also states that costs are tax deductible only if incurred to generate, maintain and ensure the taxable income of the taxpayer.

countries. National authorities must treat arrangements based on their economic substance. If there is an artificial arrangement created only for tax avoiding and acquiring a tax benefit, it must be ignored, i.e. no tax benefit can be provided [4].

4.2 OECD

Last few years OECD is working on methods how to prevent the tax avoidance and evasion that has an increasing tendency. In 2013 OECD has published the Action Plan on Base Erosion and Profit Shifting that includes 15 actions to be undertaken. The 2nd Action is a Neutralisation of the effects of hybrid mismatch arrangements. An aim of this action is to develop model treaty provisions and recommendations regarding the design of domestic rules to neutralise effects (e.g. double non-taxation, double deduction) of hybrid instruments. [10] As a result of this action is a report that is divided into 2 parts.

First part includes recommendations for domestic rules. First recommendation regarding hybrid instruments is to deny the payer a deduction for a payment from a hybrid financial instrument to the extent of the deduction and not inclusion scheme. In case that jurisdiction of a paying company does not include a rule to eliminate the mismatch, then the receiving company will be obliged to consider the payment as ordinary income. Second recommendation regarding to the hybrid financial instruments is to deny the dividend exemption for dividends payments that are tax deductible for the paying company. Third recommendation regarding to the hybrid financial instruments is for payments that are deductible for the paying company but these payments are not recognized for the receiver of this payment. [3, 12]

Second part of the report includes recommendations on treaty issues. There are recommendations for using of dual-resident entities and transparent entities. Potential conflicts between these recommendations and model tax treaty are analysed within this part. Application of hybrid rules are limited to structured arrangements and related party transactions. [3, 12]

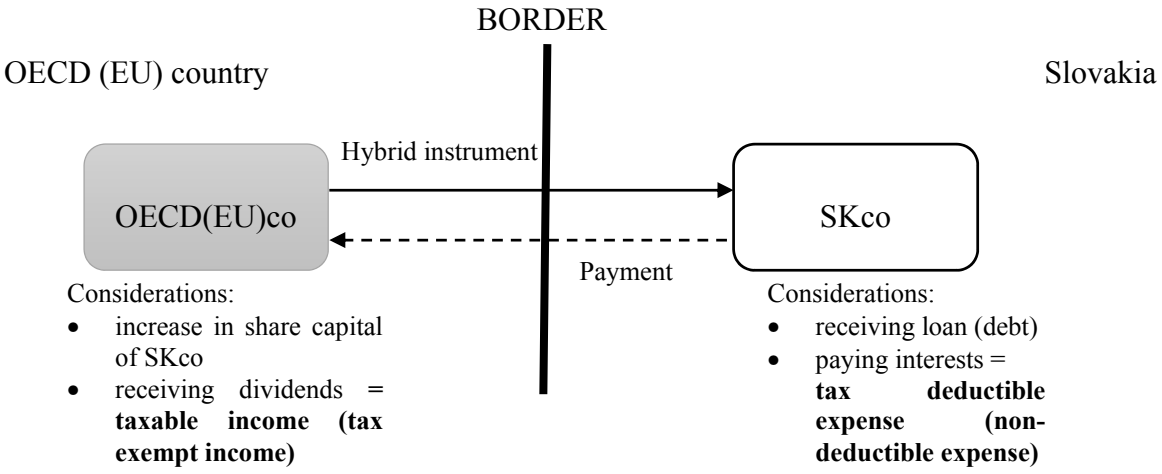
4.3 European Union

The EU estimates that approximately EUR 1 trillion are being lost due to tax evasion and avoidance (through tax havens, aggressive tax planning, tax fraud and evasion). [6] In December 2012 the European Commission has published the Action plan to strengthen the fight against tax fraud and tax evasion. The Acton plan includes 34 actions to be undertaken, recommendations on good governance in taxation and recommendations on aggressive tax planning. [5] A revision of the Parent-Subsidiary Directive was stated in the Action plan as one of actions to be undertaken because hybrid financial instruments were used as a tool for aggressive tax planning by companies during last years. Aim of the revision is to ensure that application of the directive will prevent double non-taxation in case of payments resulting from hybrid instruments.

In June 2014 the revised Directive was approved disallowing to provide tax benefit that can result into double non-taxation of income in two jurisdictions. According to the "new" Directive the Member State of the parent company receiving a payment will be required to "refrain from taxing such profits to the extent that such profits are not deductible by the subsidiary, and tax such profits to the extent that such profits are deductible by the subsidiary…."[13] . EU member states will be obliged to implement the revised Directive till 31 December 2015. It has been also proposed to replace the Directive's current anti-abuse provision with a common general anti-avoidance rule but this step will be analyzed and implemented in the future.

4.4 Impact of action plans of EU and OECD on cross-border transactions

Figure 3 Situation after implementing of Action plans



Source: author.

Figure 3 describes a situation where the company OECDco (EUco) from a EU country provides an amount of money using hybrid instrument to the company SKco from Slovakia. Company OECDco (EUco) is a tax resident of the OECD (or EU) member country and the company SKco is a tax resident of Slovakia. The hybrid instrument employed has characteristics of debt and equity. OECD (EU) member country is considering it to be an equity and Slovakia is considering it to be a debt.

However after implementation of the EU action plan and OECD action plan companies have to tax the payment in one jurisdiction. They will not be in a position to benefit from the mismatch and a double non-taxation will not be present. Received dividends will be subject to tax if this payment is considered to be a tax deductible expense in the jurisdiction of payer. Or received dividend will be considered as tax exempt income if this payments will be considered as non-deductible expense in the jurisdiction of payer.

5 Conclusions

The revision of the Parent-Subsidiary Directive will affect only using of hybrid instruments between companies from EU member states. Using of hybrid financial instruments between the EU and third countries will not be affected. From our point of view this step will reduce hybrid mismatch only in the European Union.

If countries decide to apply recommendation from the first part of the OECD report, for companies will not be easy to benefit from schemes including hybrid financial instruments. However there is still an opportunity to use schemes including hybrid financial instruments with third countries because recommendations of the OECD are proposed for member states of the OECD only.

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SPÔSOBY A TRENDY ZDAŇOVANIA PRÍJMOV V KRAJINÁCH OECD

Alena ZUBAĽOVÁ[1]

Ján REMETA[2]

[1] Ekonomická univerzita, Národohospodárska fakulta, Katedra Financií, Dolnozemská 1, 852 35 Bratislava, e-mail: alena.zubalova@gmail.com

[2] Inštitút finančnej politiky, Ministerstvo financií SR, Štefanovičova 5, 817 82 Bratislava, Slovenská republika, e-mail: jan.remeta@mfsr.sk

ABSTRACT

During the last decade most developed countries undertook structural changes within their tax systems. In some countries, the reforms were widespread and implemented in a short time. In many cases we can even talk about tax reform. The area of income is very complex because it incorporates all taxable revenue streams regardless of their type, form or legal basis. Most countries use a method of comprehensive income taxation, in other words they tax the whole or the greater part of all working "income" capital within the same progressive structure. The system includes many exceptions and exemptions. In contrast, some countries have introduced a single tax rate on personal as well as corporate income. Semi-dual taxation income countries are those that apply lower taxation on capital income compared to labor income. In this paper we evaluate the current methods of revenue collection and point out the existing trends in the taxation of income in developed OECD countries.

Keywords: income tax, tax burden, labor taxation, taxation of capital

JEL codes: F15, G18, H20

1 Úvod

Problematika zdaňovania príjmov sa dotýka ako daňovej teórie tak aj daňovej politiky. Systémy zdaňovania príjmov využívané v jednotlivých krajinách sa od seba odlišujú viacerými špecifickými črtami, fungujú na rozdielnych zásadách a princípoch, pričom odrážajú špecifiká konkrétnej krajiny a sledujú ciele svojej hospodárskej politiky. Klasická teória optimálneho zdanenia sa zameriava predovšetkým na podmienky zdanenia príjmov fyzických osôb, pričom ak upriamime pozornosť len na sadzby dane je možné rozlíšiť modely nelineárneho zdanenia a modely lineárneho zdanenia. Pri zdaňovaní príjmov tak ide v podstate vždy o rozhodovanie medzi lineárnym a progresívnym zdanením.

2 Teoretické východiská pre možnosti zdaňovania príjmov

Nemožno nájsť krajiny, v ktorých by boli dane z príjmu zostavené systematicky, ale napriek tomu majú určitý koncept, ktorý vychádza z komprehenzívnej dane z príjmu. **Komprehenzívna daň**, vychádzajúca zo Schanz- Haig- Simons konceptu, bola základným princípom zdanenia vo vyspelých krajinách takmer počas celého storočia. Za druhý čistý spôsob zdanenia možno považovať spotrebne- orientované daňové systémy, ktoré zahŕňajú viacero ucelených koncepcií. Spotrebne-orientovaný daňový systém znamená systém, v ktorom sa spotreba zaťaží buď nepriamo (napr. prostredníctvom DPH) alebo priamo spotrebne- orientovanou daňou

z príjmu. Za spotrebne orientovanú daň z príjmu považujeme daň s jednotnou lineárnou sadzbou - **flat tax**[1]**.** Táto daň vychádza z ucelenej daňovej reformy, ktorú presadzovali Robert Hall a Alvin Rabushka [1] z Hooverovho inštitútu Standfordskej Univerzity v Californii. Treťou alternatívou je zmiešaný daňový systém, ktorý obsahuje prvky príjmovo aj spotrebne-orientovaných daňových systémov. V takomto systéme sú príjmy zdaňované **duálnou daňou.** [6]

V prípade **komprehenzívnej dane** z príjmov ide o progresívny daňový systém, v ktorom všetky príjmy vchádzajú do spoločného agregovaného, resp. komprehenzívneho základu dane podliehajúcemu zdaneniu. Nedochádza k rozlišovaniu príjmov fyzických a právnických osôb, nakoľko ide o symetrické zaobchádzanie so všetkými zložkami príjmov podliehajúcich progresívnemu zdaneniu. Inak povedané, do základu sa zahŕňa čistý príjem nezávisle od zdroja (t.j. pracovný aj kapitálový) a pravidelnosti príjmov. Reformné návrhy vychádzajúce z SHS[2] konceptu požadujú zahrnutie všetkých príjmov do základu dane, teda aj úrokov. Požiadavka rozšírenia základu dane tak umožňuje použiť nižšiu daňovú sadzbu.[3] Zároveň komprehenzívna daň vyžaduje odstránenie všetkých (politicky podmienených) daňových úľav. Napriek tomu tento typ daňového systému väčšinou obsahuje výrazné odpočítateľné položky a oslobodenia, ktorých hodnota s výškou príjmu rastie. Daňové systémy väčšiny krajín OECD sú v princípe založené na komprehenzívnej dani. Používajú však veľa daňových preferencií, ktoré odporujú čistému SHS zdaneniu, napr.: vyňatie zadržaných ziskov, časový odklad zdanenia dôchodkov do momentu ich vyplácania, vyňatie akumulácie kapitálu do penzijných fondov alebo životného poistenia, vyňatie kapitálových ziskov z nehnuteľnosti obývanej vlastníkom. Rôzne výnimky motivujú k daňovým arbitrážam. Medzi ďalšie problémy, ktoré podkopávajú koncepciu SHS, patria dvojité zdanenie dividend, obmedzenia v odpočtoch strát a v odpisovaní. [6]

Proporcionálnemu zdaňovaniu príjmov zodpovedá **flat tax.** Pri jej implementovaní do daňového systému je potrebné na úrovni spoločnosti zaviesť reálnu cash-flow daň. Daňový základ sa potom vzťahuje len na reálne hospodárske transakcie. Na úrovni domácnosti/jednotlivca je zavedená daň z príjmu očistená od úrokov. Zdanený je všetok pracovný príjem bez ohľadu na použitie. Dôležitou charakteristikou systému „rovnej dane“ je, že všetky príjmy sú zdaňované len raz a čo najbližšie pri zdroji. S príjmom sa zaobchádza jednotne, bez žiadnych rozdielov v sadzbách. Príjem sa síce člení na príjem z podnikania a príjem vo forme mzdy, ale sadzba je v oboch prípadoch rovnaká. Jediná výnimka spočíva v základnej nezdaniteľnej čiastke, ktorá vytvára určitý priestor pre progresiu zdanenia pracovných príjmov.[4] Jednotnú sadzbu dane z príjmu zaviedli ako prvé z postsocialistických krajín v polovici 90. rokov pobaltské republiky. Neskôr ich nasledovali ďalšie tranzitívne krajiny, najmä bývalej Ruskej federácie. Aj napriek jednej sadzbe je však zabezpečená určitá progresivita prostredníctvom uplatnenia základnej daňovej úľavy (napr. v Estónsku), základnej odpočítateľnej položky ako to bolo napr. v SR, alebo vyňatia minimálnej čiastky mzdy zo zdanenia (napr. v Litve).

Duálnu daň možno považovať za hybridný model zdaňovania príjmov, ktorého spoločná črta s komprehenzívnym zdaňovaním príjmov je progresivita zdaňovania pracovných príjmov a zároveň spoločná črta s flat tax je proporcionálne zdaňovanie kapitálových príjmov. Princípom dane je teda duálne zaobchádzanie s pracovnými a kapitálovými príjmami. Daňové

[1] Z angl. flat rate = jednotná sadzba, flat tax = daň z jednotnou lineárnou sadzbou

[2] SHS koncept - Schanz- Haig- Simons koncept

[3] Ide o tzv. tax-cut-cum-base-broadening metódu.

[4] Charles McLure navrhoval pre bývalé socialistické štáty spotrebne- orientovanú daň, ktorú nazval zjednodušená alternatívna daň (z angl. simplified alternative tax- SAT). Hlavnými prvkami zjednodušenej alternatívnej dane sú: oddelené zdanenie pracovného príjmu a príjmu z podnikania a kapitálu, odpočítanie všetkých podnikových výdavkov v roku nadobudnutia a nezdaňovanie úrokov a dividend.

bremeno duálnej dane tak závisí nielen od celkových príjmov, ale aj od zdroja, čím sa duálna daň jasne líši od tradičnej dane z príjmu. Pracovné príjmy zahŕňajú mzdy, platy, dôchodky, transfery sociálneho zabezpečenia a nepeňažné výhody mimo platu. Kapitálové príjmy zahŕňajú dividendy, úroky, nájomné, kapitálové zisky z reálneho kapitálu. Pracovné príjmy sú zdanené progresívne. Kapitálové príjmy a príjmy spoločností sú zdanené lineárnou daňou so širokým základom a dosť nízkou sadzbou, ktorá je pre oba druhy príjmov rovnaká alebo približne rovnaká. Priestor pre daňové arbitráže pri takomto zdanení príjmov z dôvodu nižšieho zdanenia pracovných príjmov a vyššieho zdanenia kapitálových príjmov, je možné obmedziť aplikovaním daňovej sadzby zaťažujúcej kapitálový majetok na tej istej úrovni ako je daňová sadzba zaťažujúca príjmy v najnižšej príjmovej skupine. Výrazný rozdiel medzi výškou daňovej sadzby na pracovné a kapitálové príjmy nie je len prípadom duálnej dane. Existencia sociálnych odvodov vo všetkých krajinách OECD spôsobuje, že efektívna hraničná daňová sadzba na prácu výrazne prevyšuje hraničnú daňovú sadzbu na kapitál. [4]

V praxi neexistuje ani jeden zo systémov zdanenia príjmov v čistej podobe. Všetky krajiny OECD využívajú špeciálne daňové režimy na určité typy príjmu (výhody mimo platov, niektoré druhy kapitálového príjmu, nehnuteľnosti obývané majiteľom) a veľa krajín ukladá príspevky sociálneho zabezpečenia iba na pracovný príjem. Niektoré krajiny smerujú viac k súhrnnému, niektoré k duálnemu a niektoré k lineárnemu zdaneniu príjmov, využívajú teda hybridný systém zdanenia.

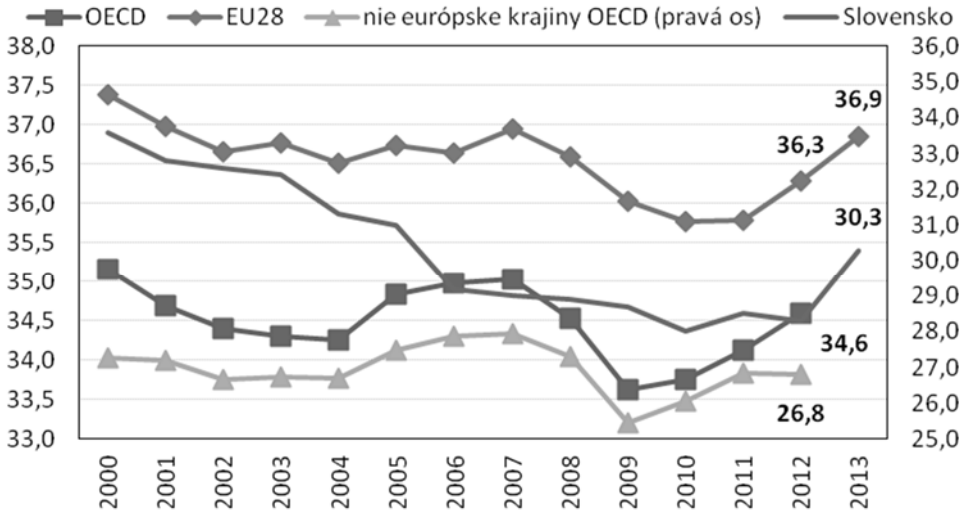
3 Súčasné trendy zdaňovania v krajinách OECD a EU so zameraním na zdanenie

V tejto časti príspevku sme sa zamerali na existujúce trendy zdaňovania v období medzi rokmi 2000 až 2012, so špecifickým zameraním sa na pokrízový vývoj. Pozornosť sme upriamili na sledovanie **vývoja daňového zaťaženia, zdanenia práce a kapitálu.** Porovnaním údajov o vývoji jednotlivých daňových príjmoch v členských krajinách (OECD-34, EU-28) je možné konštatovať nasledujúce trendy v zdanení:

- Daňové zaťaženie v krajinách EÚ je výrazne vyššie ako v neeurópskych[5] krajinách OECD. Rozdiel v ich celkovom daňovom zaťažení v roku 2012[6] predstavoval až 9,5 percentuálneho bodu (graf 1).
- Trend vývoja daňového zaťaženia po roku 2000 bol v krajinách EÚ aj OECD identický. V období medzi rokmi 2000 až 2004 priemerné daňové príjmy klesali (najmä prostredníctvom znižovania zaťaženia práce) a od roku 2004 začali znova rásť. Po vypuknutí finančnej krízy došlo k ich opätovnému poklesu, keď dosiahli svoje dno v roku 2009. Od roku 2010 priemerné daňové príjmy znova rástli a tento trend pokračuje aj v súčasnosti, pričom ich hodnoty sa približujú k predkrízovým úrovniam. [3]
- Zmenu daňových príjmov vyjadrených ako podiel na HDP ovplyvňuje zmena v ekonomickej aktivite (t.j. zamestnanosť, spotreba), zmena daňovej legislatívy (t.j. sadzby, základy dane, daňové výdavky), zmena úspešnosti výberu daní a úroveň HDP.

[5] Austrália, Kanada, Čile, Izrael, Japonsko, Kórea, Mexiko, Nový Zéland, Turecko, USA.
[6] Posledne dostupné medzinárodne porovnateľné údaje.

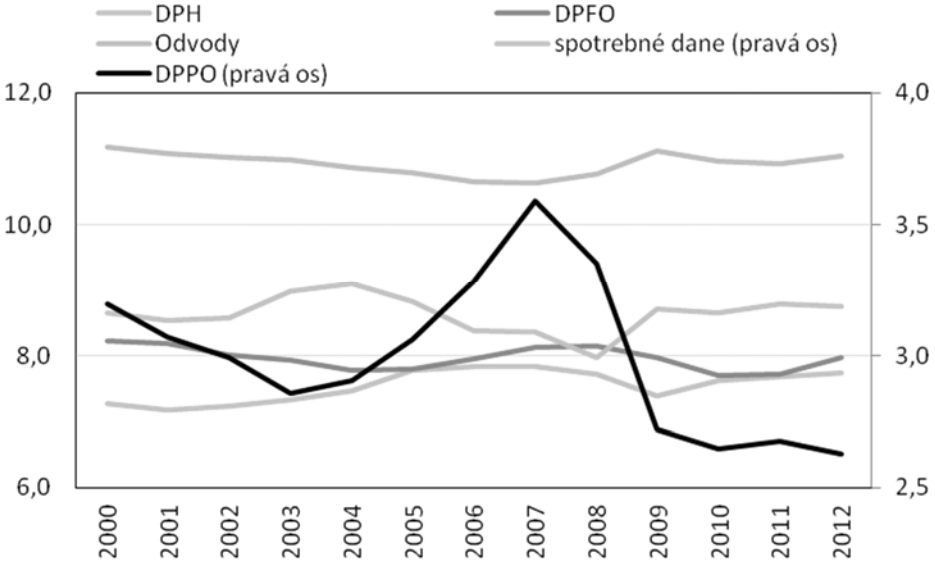
Graf 1 Vývoj daňových príjmov (% HDP), EU a OECD, 2000-2013



Zdroj: Eurostat, OECD database, nevážený priemer, údaje EU28 za roky 2000 a 2001 bez Chorvátska [3]

- Zlepšený vývoj daňových príjmov v EÚ po roku 2010 je možné do značnej miery pripísať aktívnemu prístupu krajín k znižovaniu deficitu. Zvyšovanie daňového zaťaženia krajiny realizovali najmä odstraňovaním existujúcich daňových výdavkov alebo prostredníctvom zvyšovania sadzieb DPH, či zavádzaním dodatočných daní na finančné inštitúcie („bank levies“).
- Vývoj celkového daňového zaťaženia na Slovensku nekopíroval priemerný vývoj daňových príjmov v EU ani OECD, keď kontinuálne klesal počas celého sledovaného obdobia s výnimkou rokov 2011 a 2013. Výrazné zlepšenie vývoja daňových príjmov v roku 2013 je možné pripísať na vrub zlepšeného makroekonomického vývoja, prijatých konsolidačných opatrení a zvýšenej efektivity výberu DPH. [7].
- Pri pohľade na štruktúru daňových príjmov (graf 2) zistíme, že kým nepriame dane od vypuknutia krízy ako podiel na HDP rástli, priame dane klesali.
- Podiel DPH od roku 2009 na HDP vzrástol najmä vďaka zvyšovaniu sadzieb DPH a pokračujúcemu oživeniu spotreby.

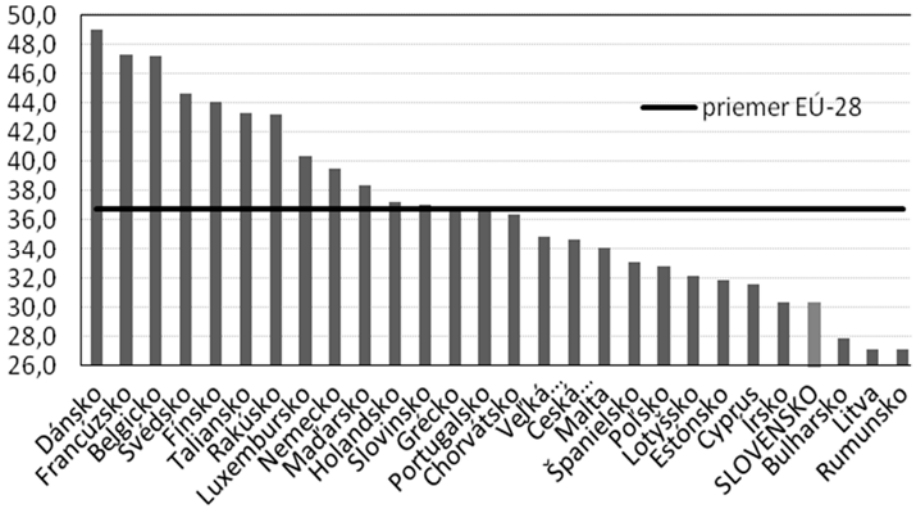
Graf 2 Vývoj vybraných daní (% celkových príjmov), nevážený priemer EÚ, 2000-2012



Zdroj: Eurostat, údaje EU28 za roky 2000 a 2001 bez Chorvátska [2]

- Priame dane pri rozdielnom trende vývoja poklesli v rovnakom období z 13,7% na 13,2% HDP, pričom v krízovom roku 2009 dosiahli len 12,7% HDP. Pokles počas krízy bol zaznamenaný hlavne v prípade korporátnych daní, ktoré sú senzitívnejšie na ekonomický cyklus ako v prípade daní z práce a je s nimi spojené aj dlhšie obdobie zotavovania (možnosť umorovania strát v nasledujúcich rokoch).
- Najvyšší podiel daní na HDP[7] (graf 3) v roku 2013 malo Dánsko (49,0) a zakladajúci členovia EÚ - Francúzsko (47,3) a Belgicko (47,2), naopak najnižší - krajiny, ktoré pristupovali najneskôr Bulharsko (27,9), Litva (27,9), Rumunsko (27,1). Slovensko vďaka konsolidačným opatreniam zvýšilo podiel daní na HDP v roku 2013 z 28,3% na 30,3% HDP, čo stále predstavuje štvrtý najnižší podiel daní a odvodov na HDP.
- Štruktúra daňových príjmov v jednotlivých členských krajinách sa značne líši. Zatiaľ čo pôvodné krajiny EU-15 rozkladajú daňové zaťaženie (vyjadrené ako % HDP) medzi priame a nepriame dane viac-menej rovnomerne, noví členovia EÚ sa spoliehajú najmä na výber nepriamych daní a odvodov.

Graf 3 Daňová kvóta II (podiel daní na HDP), EÚ28, 2013



Zdroj: Eurostat, údaje o notifikácia deficitu a dlhu (október 2014) [2]

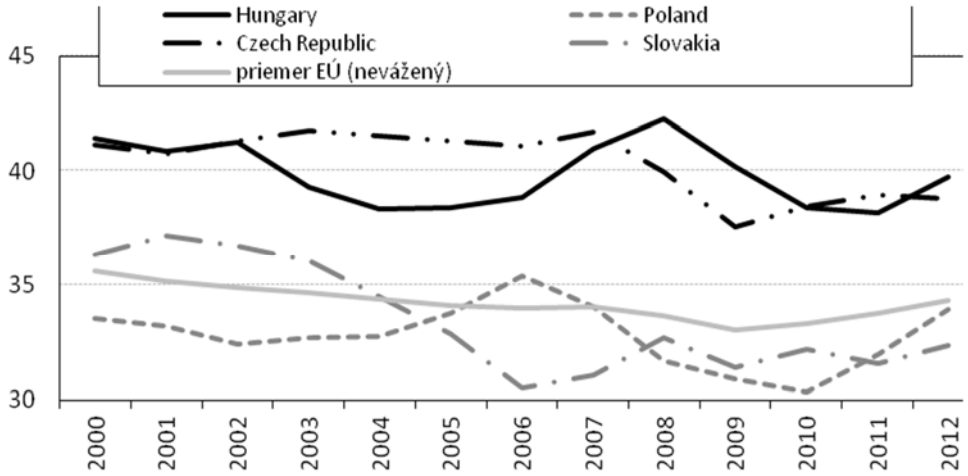
Zdanenie práce:

- Pri porovnávaní daňového zaťaženia v jednotlivých krajinách je nevyhnutné pozerať sa na daňovo-odvodový systém ako celok. Zákonné daňové a odvodové sadzby sú len jedným z prvkov, ktoré pomáhajú určiť resp. vysvetliť daňové zaťaženie. Porovnanie zákonných, priemerných (efektívnych) a marginálnych sadzieb dane z príjmov v kombinácii s distribúciou príjmov ukazuje, že efektívne daňové sadzby napriek podobným zákonným sadzbám v rôznych krajinách sa môžu výrazne líšiť. Platí, že kvôli existencii viacerých výnimiek sú spravidla efektívne daňové sadzby vždy nižšie než zákonné sadzby dane z príjmu fyzických osôb.
- Napriek všeobecným odporúčaniam (OECD „tax and economic growth" ranking order) [3] dochádza v pokrízovom období k rastu zdanenia práce (graf 4). Rovnaký trend ako vývoj priemernej implicitnej daňovej sadzby z práce kopíruje aj vývoj priemerného daňového klinu (jednotlivca).
- Daňové zaťaženia práce (IDS) sa naprieč jednotlivými krajinami EÚ-28 výrazne líši od úrovne 23,3% na Malte až po 42,8% v Belgicku v roku 2012.

[7] Októbrová notifikácia deficitu a dlhu, Eurostat

- V priemere v rámci krajín OECD aj EÚ došlo v období medzi rokmi 2000 až 2009 k výraznému poklesu najvyššej daňovej sadzby (z priemernej úrovne 44,6% na úroveň 38%). V posledných rokoch je však badateľný trend rastu najvyšších sadzieb DPFO (z 38% na 39,4%). Toto zvýšenie je dôsledkom potreby fiškálnej konsolidácie a zvýšenia miery redistribúcie, keďže kríza sa negatívne prejavila najmä na pleciach nízkopríjmových.
- Vo väčšine krajín, v ktorých došlo k zníženiu celkového zaťaženia, hlavným prostriedkom na dosiahnutie tohto cieľa bolo rušenie výnimiek v zdanení.

Graf 4 Implicitná daňová sadzba z práce, 2000 - 2012



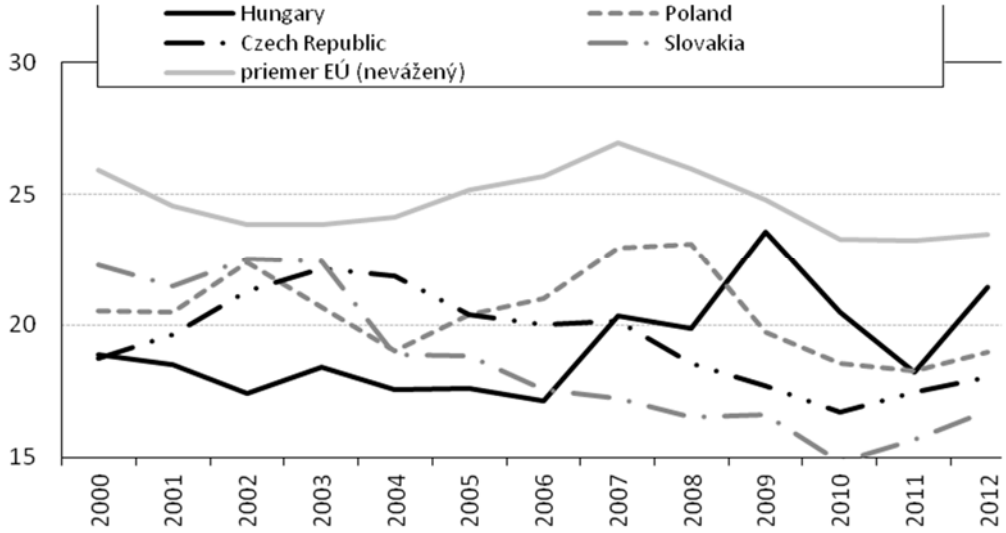
Zdroj: Eurostat [2]

- Platí, že všetky krajiny EÚ nezdaňujú určitú počiatočnú úroveň príjmu**.** Dôvodom tohto stavu je existencia daňových výnimiek: sociálnych faktorov z zdanení, medzi ktoré zaraďujeme: nezdaniteľné časti základu dane, daňové bonusy (na rozdiel od nezdaniteľnej časti základu dane, ktorá znižuje základ dane daňové bonusy znižujú výslednú daňovú povinnosť) a nulové daňové pásma.
- Odvody zamestnancov sa vo väčšine krajín platia od prvej jednotky príjmu. Výnimku tvoria Rakúsko, Belgicko, Írsko, Švédsko a Anglicko. Slovensko od budúceho roku bude v prípade zdravotných odvodov rovnako uplatňovať odvodovú odpočítateľnú položku.

Zdanenie kapitálu:

- Od roku 2000 je badateľný všeobecný pokles základnej (zákonnej) sadzby DPPO.
- Upravená sadzba (o prirážky a lokálne korporátne dane v prípade ak existujú) DPPO v roku 2014 sa pohybuje od 10% v Bulharsku až po 38% vo Francúzsku.
- V sledovanom období od roku 2000 až po 2012 sa znížil rozdiel medzi najvyššou a najnižšou sadzbou v jednotlivých krajinách z 32% na 28% (oproti roku 1995 až o 37%).
- Implicitná daňová sadzba z kapitálu po raste v období od roku 2002 do roku 2008 a následnom poklese z dôvodu zníženia ziskov počas finančnej krízy opäť stabilizovala. Rozdielny vývoj implicitnej daňovej sadzby z kapitálu v krajinách V4, najmä jej trvalý pokles od roku 2002 na Slovensku a v Česku poukazuje na znižovanie úspešnosti výberu korporátnej dane v týchto dvoch krajinách. Od roku 2011 všetky krajiny V4 s výnimkou Maďarska (ktoré až od roku 2012) zaznamenali kontinuálny rast príjmov z korporátnej dane.

Graf 5 Implicitná daňová sadzba z kapitálu, 2000 - 2012



Zdroj: Eurostat [2]

4 Záver

Rast vzájomnej závislosti ekonomík v Európskej únii je spojený s rastúcim záujmom o medzinárodné aspekty verejných financií, vrátane zjednocovania ich daňových systémov. Harmonizácia daní, najmä priamych, sa však ukazuje ako veľmi zložitý a ťažko realizovateľný proces, ktorý naráža na celý rad ekonomických, politických a sociálnych bariér. Výrazné rozdiely v daňovom zaťažení členských krajín OECD sa zdajú byť jedným z najvýznamnejších problémov v tomto procese.

Poďakovanie

Príspevok bol spracovaný v rámci riešenia vedeckovýskumného projektu VEGA č. 1/0008/11 Efektívnosť využitia daňových príjmov a verejných výdavkov v nadväznosti na dlhodobú udržateľnosť verejných financií a nové netradičné možnosti rozpočtových príjmov. Obdobie riešenia projektu 2011 – 2014.

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