## Expected macro-economic developments in Slovakia
Economic and Monetary Analyses Department of NBS

*The Slovak economy grew by 0.9% in the third quarter of 2015 on the basis of strong investment demand. The growth trend is expected to continue in the quarters ahead, thanks largely to a domestic side of the economy buoyed by increasing real incomes and private investment. Annual GDP growth is projected to average 3.2% in 2016 and 3.3% in 2017. As work begins on a new car plant in Slovakia, the positive impact of that investment on GDP growth should start being seen in 2016 and its cumulative impact in 2016 and 2017 is estimated at 0.3 percentage point. Economic growth over the projection horizon is expected to be balanced, with the contribution of exports forecast to increase significantly in 2017. The strengthening of the real economy should boost job creation, and the unemployment rate is forecast to fall to 9% by the end of the projection horizon. Low energy prices are expected to be the main determinant of the inflation path. The average inflation rate is expected to remain low in 2016, at 0.4%, before rising to 1.8% in 2017 amid recovering demand and higher imported inflation. (p. 2)*

## Selected aspects of the Chinese financial market
Miroslava Kosáková, Národná banka Slovenska

*After years of exceptionally strong growth, the Chinese economy has become one of the most important components of the world economy. Since world markets tend to react to uncertainty, whether on the upside or downside, close attention is paid to what is happening in a country that is the world's largest exporter and a source of huge demand. The importance of the Chinese currency has also increased and the renminbi is now among the world's most traded currencies. Under the socialist market economy, the economic model applied in China, the Chinese government intervenes in the country's monetary policy and exchange rate, with the aim of gradually liberalising its capital market. Nevertheless, the country's economic variables remain subject to various restrictions and controls. (p. 4)*

## Internationalisation of the Chinese currency: Towards a multipolar international monetary system?
Lucia Országhová

*As China establishes itself as the world's second largest economy and top trading nation, its currency, the renminbi (RMB), is also gaining popularity around the world. This article reviews the motivation and different measures undertaken by Chinese authorities for accelerating the RMB internationalisation process. We argue that the recent decision by the IMF to recognise the Chinese currency as fully convertible and to include it into the SDR basket will provide further impetus in increasing the international relevance of the Chinese currency. (p. 7)*

## Meta-regression analysis in economics: Lessons learned
Zuzana Havránková, Institute of Economic Studies,
Charles University, Prague

*This article is based on my dissertation thesis of six papers that span the fields of macroeconomics, international economics and energy economics and are linked together by the methodology of meta-regression analysis. I use meta-analysis to quantitatively synthesise the reported research results on a given topic, correct the literature for publication selection bias, and filter out the effect of various misspecifications present in some primary studies. My results show that: 1) substantial cross-country differences exist in the elasticity of intertemporal substitution in consumption; 2) the effect of borders on international trade can be explained away by innovations in methodology introduced in the last decade; and 3) there is significant publication bias in the literature on the social cost of carbon, price elasticity of gasoline demand, and the effect of foreign investment on local firms. I offer insights into best-practice methods in meta-analysis and discuss practical details missing in other guidelines. (p. 13)*

## Financial network modelling
Jakub Danko, Faculty of Economics, Technical University of Košice

*This article is based on my dissertation on financial network modelling, the aim of which was to monitor the financial market structure identified using the minimum spanning tree (MST) method (Montagna, 1999). As a discipline of discrete mathematics/graph theory, the MST method has in recent years been applied in the modelling of many structures, not just economic ones. This study focused on the US capital market, defined here by sectoral subindices of the Dow Jones Industrial Average (DJIA). The minimum spanning trees of the graph are estimated using overlapping time windows of 20 days for subindex returns between March 2001 and September 2014 and also using dynamic conditional correlations obtained from a GARCH (1,1) model. By applying a cluster analysis, the MSTs are subsequently grouped according to similarity of graphical representation of the capital market, and then they are analysed. In this article we look only at the most important and interesting findings from the analysis, whereas the original dissertation includes detailed examination of the theoretical framework and many partial analyses. (p. 18)*

## Application of artificial intelligence methods to financial markets
Martin Jakubéci, Faculty of Management, Comenius University in Bratislava

*In putting together a portfolio of stocks, investors face what can be described as a 'multi-objective optimisation problem' and their main considerations are revenue and risk. One of the algorithms that may be used to address this problem is genetic programming, which uses evolutionary operators to find solutions in a tree structure. The most common input data are historical stock prices. A new trend in this area is the incorporation of terms on the basis of their popularity in internet search-engine results. Evolutionary algorithms are effective at discerning which combinations of these data should be used as investment rule inputs. The solutions need to be validated by comparison with other strategies. Comparisons are typically made with market indices, but there are other interesting alternatives. This dissertation shows that genetic programming solutions based on search-engine results can compete with popular investment strategies and that they outperform them in most cases. (p. 25)*

## Outlining a sustainable pension system for Slovakia
Miroslav Čamek, Slovenská asociácia poisťovní

*Having previously put the case for an overhaul of the Slovak pension system, the author outlines what the reformed the pension system should look like in the view of the Slovak Insurers' Bureau. Although it is not possible at this stage to provide a detailed proposal, the outline for the core aspects is a major step. The basic premise is that the whole pension system and its structure need to be converted into a standard form that will be compatible with, and similar to, the pension systems of other European countries. (p. 30)*