



**AUTORITATEA  
DE SUPRAVEGHERE  
FINANCIARĂ**

**Strategy and Financial Stability Division**

# Meeting the Challenges of Volatility

## Panel I

### Global markets volatility and potential risks for Romania

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Director



# General view

- The volatility of the financial markets is **particularly relevant for the entities supervised by ASF**, having both direct and indirect impact on their financial performance and compliance with prudential requirements
- Even in a formal way, **volatility is often included in the models used to compute prudential financial requirements** described by regulations at different levels: from European directives to ASF regulations, for example:
  - **Technical Provision** for private pension fund managers
  - **Solvency Capital Ratio (SCR)** for insurers
- **ASF monitors market volatility with high frequency** (including daily), both from a micro-prudential perspective and from a financial stability perspective
- The risk-based approach embedded in ASF's supervision function involves **intensifying "off-site" actions in times of increased volatility**. There have been such situations, including in the past months.

# Current assessment of volatility on international financial markets

## ○ Global

- Considering an improvement in financial stability at European and international level, coupled with a trend of improving economic activity, **the main risks to the dynamics of financial markets depend on the change in monetary policy in the US and Europe in 2018.**
- The beginning of February 2018 marks the **beginning of a global process of risk premium re-adjustment**, after a long term evolution at low levels.
- The impulse given by US monetary policy has led to **waves of contagion in the markets**

## ○ European

- At the end of last year, **most systemic risk indicators used by the ESRB at EU level remained at low levels.**
- An exception is the CISS systemic risk indicator that grew at the beginning of February as a result of **corrections in international stock markets.**
- **CISS sub-indicators that measure stock market, bond and foreign exchange market volatility have increased** (reflecting a specific risk amplification).

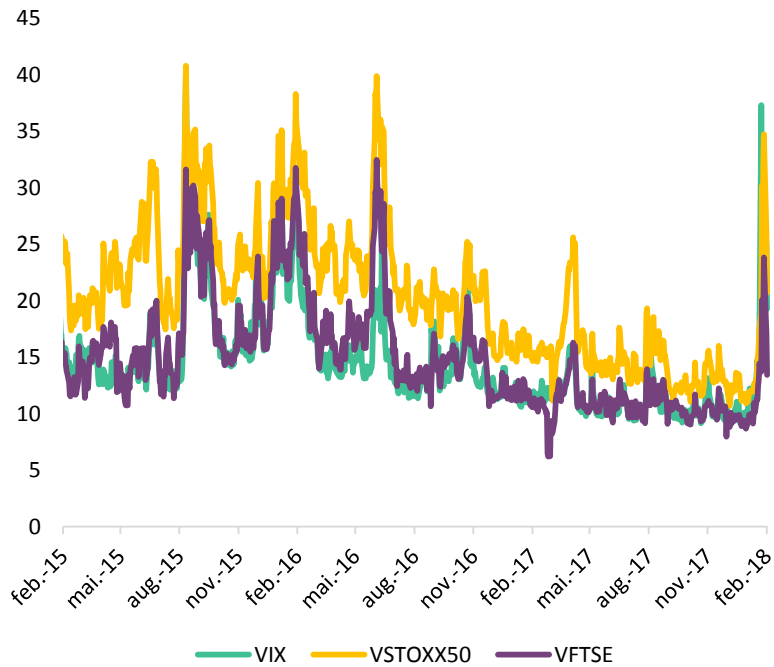
# Current assessment of volatility on Romanian non-bank financial markets

- The **market risk will remain high in the medium term**, as confirmed by the turbulence episode on the financial markets in early February.
- **The contagion risk grew** based on simultaneous decreases in stock markets between January 26 and February 9, 2018. **We expect successive corrective waves to continue on developed financial markets this year, followed by increased contagion and volatility**, which is also expected to be reflected in the prudential indicators of entities in the financial system
- **Equity**: The volatility of the domestic capital market experienced a one-time surge amid a correction of BSE indices that led to a return to equilibrium.
- **FX**: The volatility of EURRON declined, along with the constant depreciation of the RON, mainly based on internal factors.

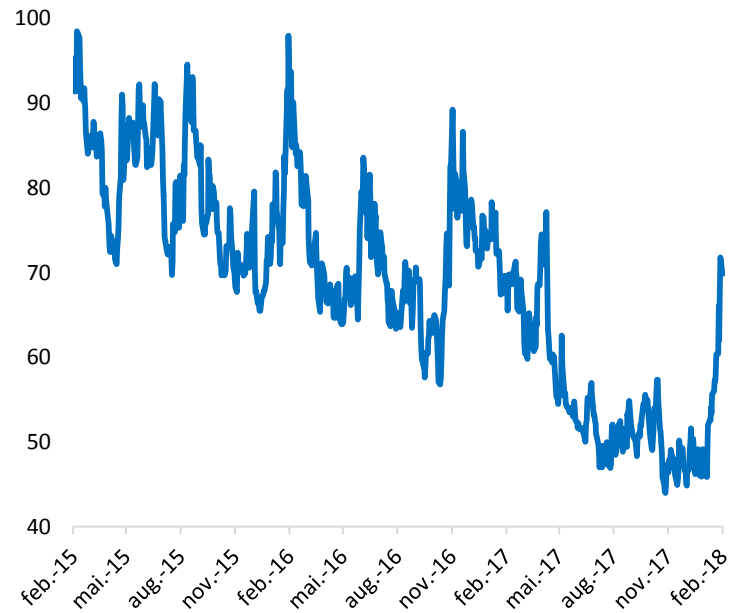
# Some indicators used by ASF to monitor volatility and contagion (I)

## International markets

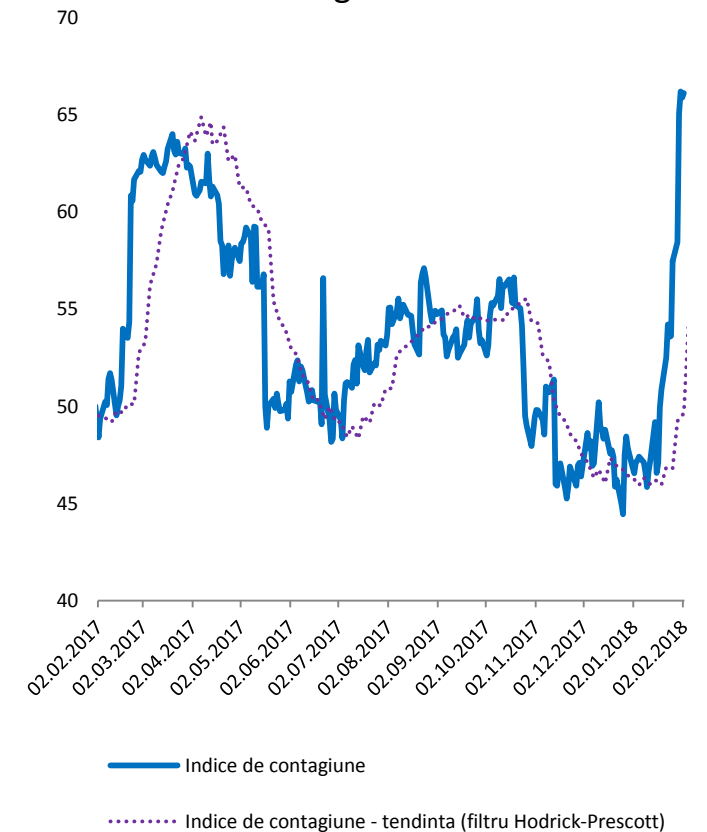
Implicit volatilities



MOVE Index – implicit volatility for US 1M options



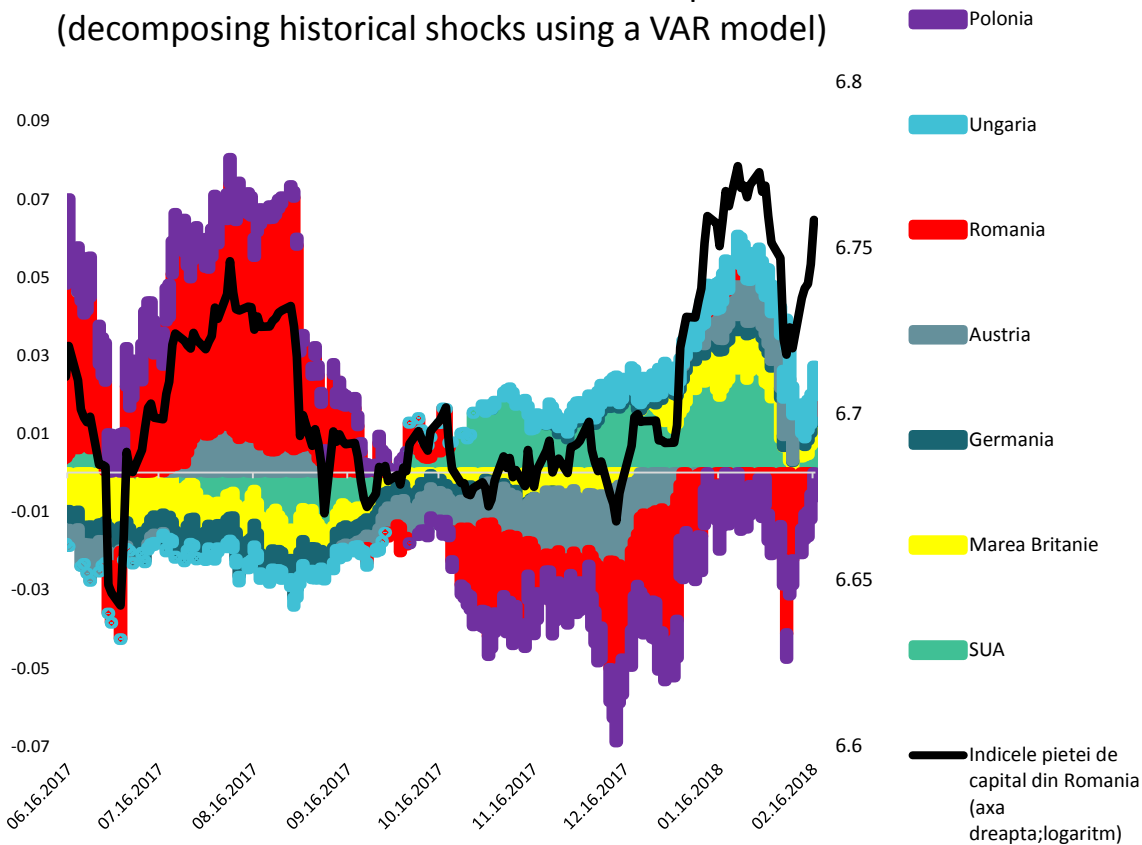
Contagion risk index



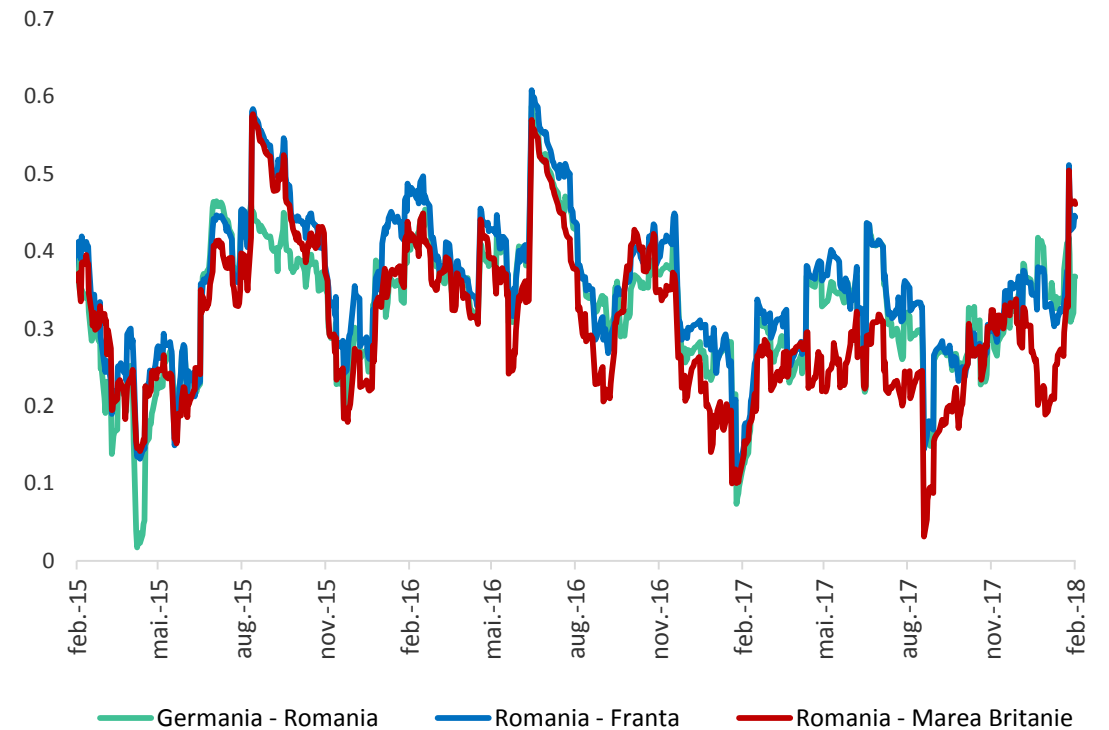
# Some indicators used by ASF to monitor volatility and contagion (II)

## Romanian market

External markets's influence on Romanian capital market  
(decomposing historical shocks using a VAR model)



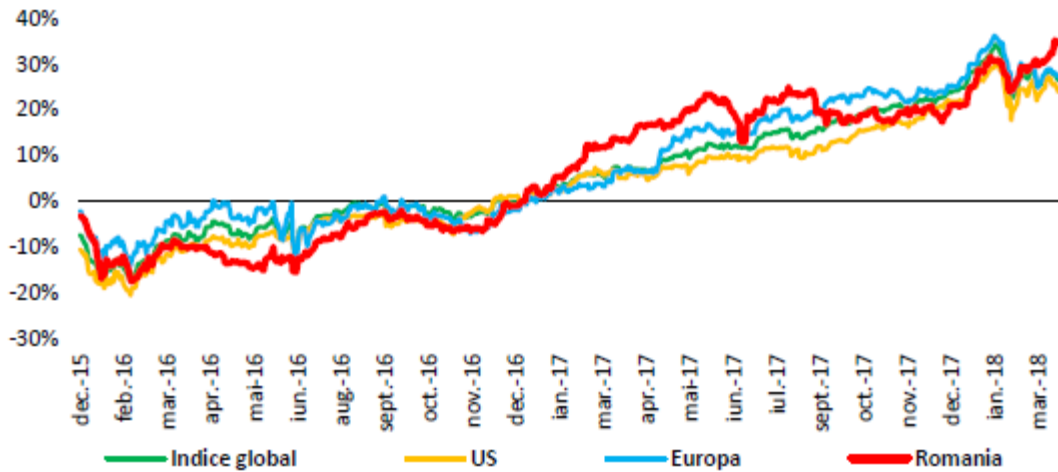
Romanian market correlations with European markets



# Some indicators used by ASF to monitor volatility and contagion (III)

## Romanian market

Markets evolution compared to December, 31, 2016



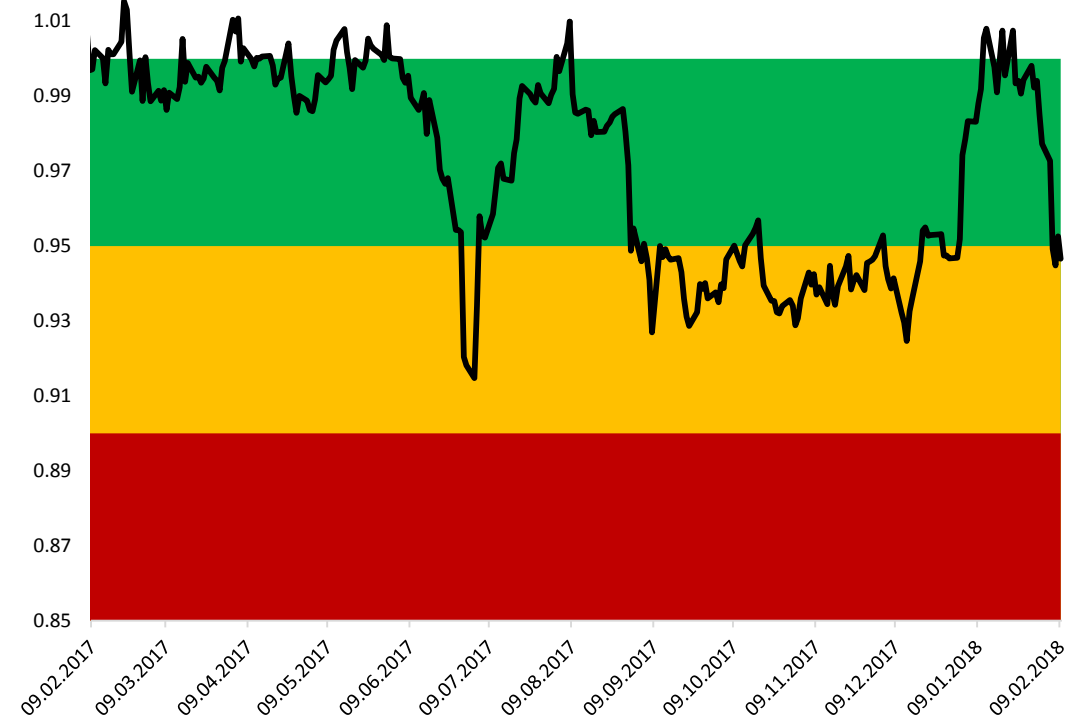
Equity markets returns

Indici internaționali	1 săpt.	1 lună	3 luni	Indici BVB	1 săpt.	1 lună	3 luni
EA (EUROSTOXX)	0.03%	-0.02%	-1.75%	BET	4.01%	5.86%	15.96%
FR (CAC 40)	0.16%	0.02%	-1.24%	BET-BK	1.68%	2.64%	10.83%
DE (DAX)	0.35%	-0.50%	-5.45%	BET-FI	-0.22%	-0.25%	5.78%
IT (FTSE MIB)	0.49%	0.26%	3.46%	BET-NG	1.77%	2.53%	13.26%
GR (ASE)	-0.93%	-3.80%	6.01%	BET-TR	4.00%	5.86%	15.99%
IE (ISEQ)	-0.76%	-2.04%	-3.17%	BET-XT	3.18%	4.55%	13.86%
ES (IBEX)	0.77%	-0.72%	-3.84%	BET-XT-TR	3.17%	4.54%	13.86%
UK (FTSE 100)	-0.84%	-1.79%	-4.36%	BETPlus	3.83%	5.65%	15.40%
US (DJIA)	-1.54%	-1.08%	1.20%	ROTX	4.01%	5.90%	15.85%

Sursa: date Datastream, calcule ASF;

Notă: Max (verde) și min (roșu) sunt fixate la ± 4% (1 săpt.), ±8% (1 lună) și ±15% (3 luni)

CMAX indicator for Romanian capital market (2y Moving average)



■ Tendinta de crestere rapida

■ Tendinta de scadere

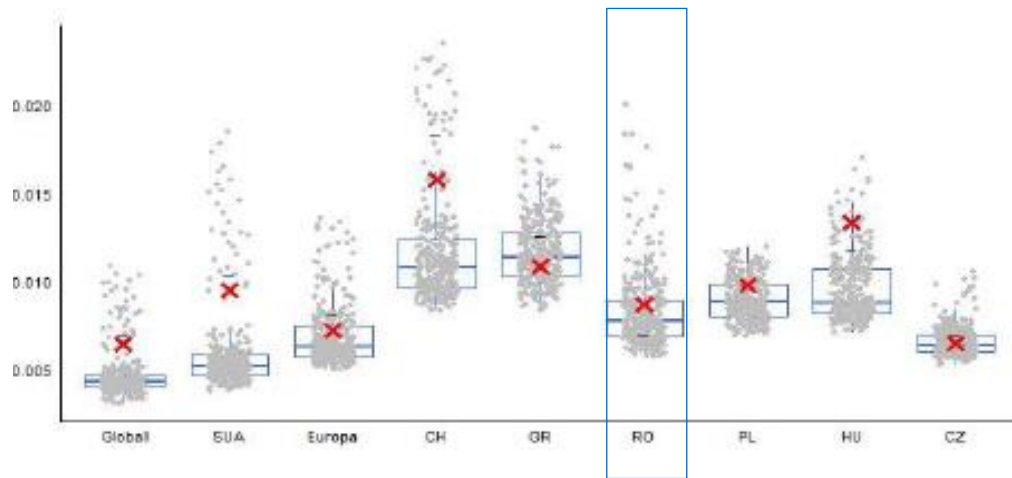
■ scadere pronuntata

— Indicator CMAX pentru piata de capital din Romania (medie mobila 2 ani)

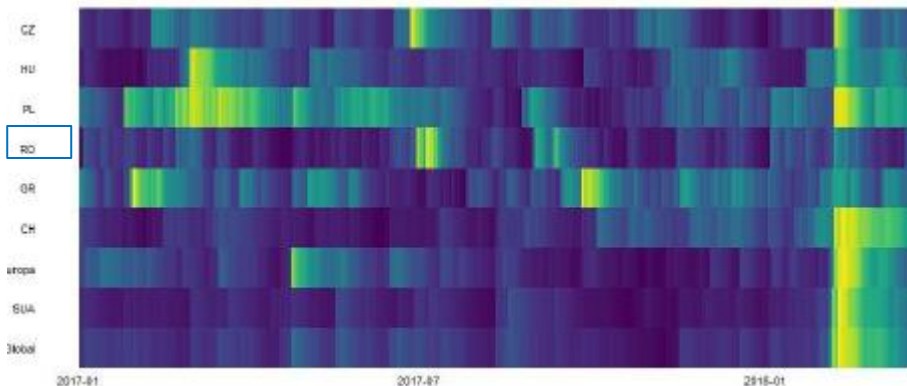
# Appendix: Indicators used to monitor volatility and contagion (IV)

## Romanian market

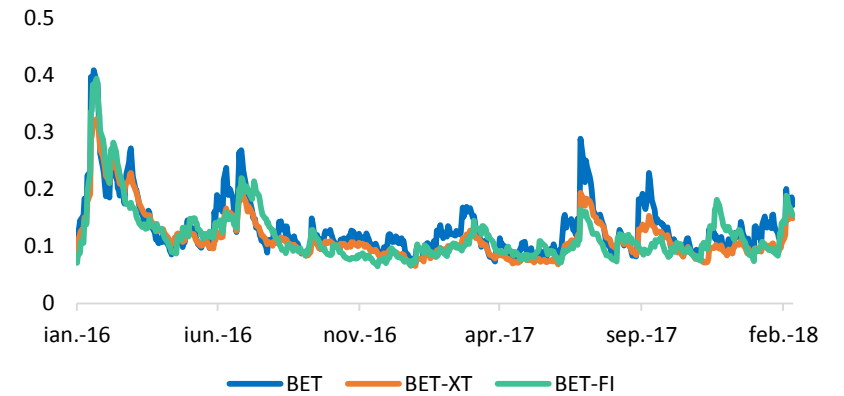
Daily volatility on stock markets (January, 1, 2017 – March, 20, 2018)



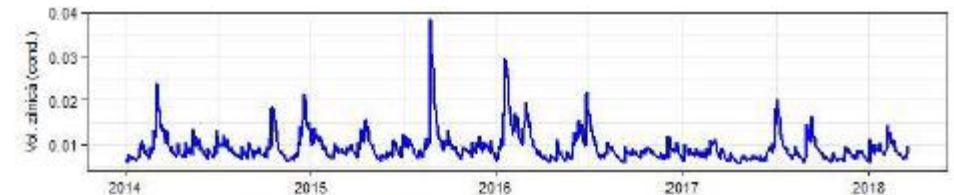
Volatility heatmap



Annualized volatility for BET, BET-XT and BET-FI



BET Index – daily conditional volatility (GARCH 1,1)



BET Index - probabilități de tranziție între regimuri de volatilitate (Markov)

