

Financial University under the Government of the Russian Federation
Department of Public Finance

Anureev S.V.

Fiscal Policy and Real Economy (in English)
Course Syllabus

Level of Study: Master's Degree

Field of Study: Finance and Credit

Study Program:
Public Financial Management

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1. Name of a subject

Fiscal Policy and Real Economy (in English)

2. Mapping of learning outcomes (list of competences), with the relevant indicators described and subject learning outcomes indicated

The section lists the graduates' coded competencies that are to be developed during the learning process, indicators that show their development (generalized descriptions of specific actions performed by the graduate that clarify and reveal the competence content), learning outcomes (knowledge, skills) with indicators of competence development (in the form of a table):

Table 1

Competence code	Competence	Competence development indicators ¹	Learning outcomes (skills ² , and knowledge) and indicators that show competence development
Concentration: Public Finance Management			
AC-5	Ability to assess the current, medium- and long-term consequences of the public finance management decision-making process, to examine their impact on real and financial sector cash flows and investment projects (AC-5)	1. Uses modern tools to forecast public finance management decision-making process medium- and long-term consequences.	
		2. Makes professionally substantiated proposals to coordinate (1) strategic and financial planning at the level of subjects of law (2) public monetary, investment and budget policies.	

3. Place of the subject in the curriculum

Goals and objectives of the course

¹ To be filled in when the updated Financial University educational standards and federal state educational standards of higher education "3++" are implemented.

² Skills are described when the Financial University educational standards of the 1st generation and federal state educational standards of higher education "3+" are implemented.

The course goal is reasonable simplification of bulk of knowledge about modern financial system vulnerability, key financial indicators and graphical presentations for decision making from viewpoint of International Monetary Fund.

The objectives of the course are the following:

- Knowing a hundred of key financial indicators of financial system stability;
- Understanding of graphical presentations, levels and dynamic of the indicators, those influence public, corporate and household finances;
- Being familiar with publication series Global Financial Stability Report, issued semiannually by International Monetary Fund.

Place of the discipline within the curriculum

The course is an elective in the curriculum of master program 38.04.08 in Finance and Lending (concentration: Public Financial Management).

4. Workload in credits and academic hours, with class work (lectures and seminars) and self-study indicated

Concentration: Public Financial Management

Table 2

Type of work	Total (in credits and hours)	Module 6 (in hours)
Overall workload	3/108	108
<i>Class work</i>	30	30
<i>Lectures</i>	10	10
<i>Seminars, practicals</i>	20	20
<i>Self study</i>	78	78
Formative assessment	<i>Control work</i>	<i>Control work</i>
Summative assessment	<i>Credit</i>	<i>Credit</i>

5. Subject content (with the thematic components indicated).

Chapter 1. Key indicators of global financial system

Global Market Developments. Returns by Asset Class. Global Equity Prices and Forward EPS Forecasts. Expected Federal Funds Rate versus FOMC Dots. US Treasury Yield Curve.

Risk appetite. Market Performance Dashboard: equity prices and equity vol-atility, credit spreads, rate volatility, FX volatility.

Global Financial Conditions. Index: United States, Euro Area, China, Systemically Important Emerging Market Economies Other than China.

Growth-at-Risk Estimates. Global Growth Forecast Densities. Near- and Medium-Term Risks and GaR Forecasts.

Global Financial Vulnerabilities. Proportion of GDP of Systemically Important Countries with Elevated Vulnerabilities, by Sector. Financial Vulnerabilities by Sector and Region.

Balance Sheet Vulnerabilities. Sovereigns: Vulnerability Indicators for Advanced and Emerging Market Economies. Nonfinancial Firms: Debt to GDP, by Region. Banks: Capitalization and Market Valuation. Redemptions versus High-Quality Liquid Assets.

Total Nonfinancial Sector Debt. Households: Debt to GDP by Region. Banking System Capital Ratios by Region. Banks' Gross Nonperforming Loans by Region. Balance-Sheet Leverage Metrics by Sector and Region

Asset Price Misalignments. US Equity Market: Prices and Fundamentals-Based Valuations. Residual Market Risk Premiums for US Dollar-Denominated Corporate Bonds. Estimated 10-Year Term Premium. Capitalization Rates for Selected Economies.

Asset Valuations. Cyclically Adjusted Price-to-Earnings Ratio. U.S. Equity Prices versus Model-Based Fair Values. U.S. Equity Volatility.

Credit Market Developments in the US and Europe, Credit Spreads, Corporate Bond and Leveraged Loan Issuance, Global Credit Fund Flows.

Structural Changes in Market Liquidity. GSIB Trading Portfolios by Region and by Bank. Estimated Adoption of Algorithmic Trading by Market. Central Bank Holdings as a Share of Government Bonds Outstanding.

Evolution in Market Liquidity. Market Liquidity Heatmap. Bloomberg Liquidity Index. One-Month Standard Deviation of Bid-Ask Spreads in Italy Sovereign Benchmark Bonds.

Equity Volatility, High-Yield Spreads, and Days with Liquidity Strain.

Sources: 19F1.1, 18F1.1, 19F1.2.-5., 18F1.6.-7., 19F1.6, 18F1.9.-10., 19F1.7., 19F1.SF.1., 19F1.SF.1.2., 19F1.SF.4.

Chapter 2. Key corporate finance indicators

The Key Features of the Current Corporate Credit Cycle. Nonfinancial Business Financing: Loans and Debt Securities. Indicative Holdings of US Corporate Bonds. US Credit Fundamentals of BBBs and US Leveraged Loan Characteristics: 2018 versus 2007. Tracking the Corporate Credit Cycle: United States versus Europe. Underlying Indicators: US and European Business and Corporate Credit Cycles.

Corporate Profitability Indicators in Advanced Economies. Global Profitability Trends. US S&P 500 Firms: Profitability Drivers, Uses of Cash Flow, Net Borrowing, Debt Ratios, Expected EPS Growth. Global Equity Markets: Expected EPS Growth.

Corporate Credit Quality Indicators in Advanced Economies. Corporate Debt Owed by Firms Characterized by EBITDA-to-Interest Expense Ratios. Characteristics of Corporate Debt by Net Debt-to-EBITDA Ratios.

Potential Fallout from the BBB Bond Downgrades on the US High-Yield Corporate Bond Market. Decomposition of High-Yield Spreads. BBB Corporate Bond Option-Adjusted Spread versus Spread Curve.

Developments in the Leveraged Loan Market in the United States and Europe. High-Yield Bond versus Leveraged Loan Debt Outstanding. US Leveraged Loan Investor Base: Banks versus Nonbanks. Leveraged Loan Issuance by Use of Proceeds. US Bank Holdings and Investor Base of Collateralized Loan Obligations.

Market Size and Domestic Investor Base. Size of International and Domestic Bond Markets. Foreign Investors, Domestic Investor Base, and Market-Liquidity Measures.

Frontier Markets: Bond Issuance and Redemptions by geographic areas.

Sources: 19F1.8.-13, 18F1.13, 18F1.19.

Chapter 3. Key characteristics of banking system

Banking Sector Resilience. Banking System Tier 1 Capital Ratio. Bank Price-to-Book Ratios. Bank Market-Adjusted Capitalization. Advanced Economy Banks with a Simulated Capital Shortfall.

Banking System Exposures to the Nonfinancial Sector. Private Nonfinancial Sector Debt-Service Ratios and Debt Levels. Private Nonfinancial Sector Debt-Service Ratios and Nonperforming Loans. Ten-Year Sovereign Spreads to German Government Bonds. Banking System Exposure to Domestic Governments.

Global Systematically Important Banks. G-SIB Holdings of Level 2 and Level 3 Assets. G-SIB Interconnectedness. Banking System Funding Models.

Availability of Macroprudential Tools for Addressing Key Vulnerabilities.

Indicators of the Importance of Foreign Banking Offices. Foreign Claims by Domestic Banks and FBOs. Share of FBOs in Foreign and Local Currencies. Foreign Bank Branches and Subsidiaries: Balance Sheet Structures. Liquidity, Lending, and Intragroup Positions of Foreign Bank Branches.

Bank Capital Requirements and the Evolution of Buffers. Procyclicality. Total Credit-to-GDP trends and deviations. Household Sector Tools. Basel, IFRS, and Stress-Testing Missions. Liquidity Buffers and Reliance on Wholesale Funding. Banking Concentration and Competition and Capital Buffers. Perceptions of Likelihood of Bailout of Systemic Institutions.

New Sources of Risk and Vulnerabilities. Shadow Banking in S29 Countries. Domestic Bank Holdings of General Government Debt Securities. CCPs and Other Counterparties in Derivatives Clearing. Global Fintech Investment Backed by Venture Capital. Cyber Risks. Sources: 18F1.20.-23., 18F1.SF.1.-3., 18F2.2, 18F2.3, 18F2.5.-9.

Chapter 4. Features of European banking system

Government Debt-to-GDP Ratios, Bank Buffers by Tier 1 Capital and Loan Loss Reserves, Nonperforming Loans. Italian Sovereign Spread and Bank Market Indicators.

Channels of Contagion in the Sovereign–Financial Sector Nexus

Banking Systems' Holdings of Domestic Government Bonds total and by Rating. Estimated Impact of Sovereign Bond Market Valuations on Tier 1 Capital Ratios.

Estimated Loan Losses and Reserves. Tier 1 Capital Ratios: Moderate Downside Scenario and Adverse Downside Scenario.

Insurers' Exposures to Sovereign, Bank, and Corporate Bonds total and by ratings. Simulated Market Shocks and Severe Downside Scenario impact to Assets and Solvency Ratios.

Euro Area Bank Profits and Funding. Banking Sector Interest Rates on New Loans and Funding. Central Bank Liquidity Support to Banking Systems. Estimated Impact of Provisioning to Fully Cover New Nonperforming Loans on Profitability. Estimated Losses from Reducing Gross Nonperforming Loan Ratios to 5 Percent by 2023.

Brexit Event Study on Jumps and Market Liquidity: Market Liquidity Strain around Key News Events, Frequency of Liquidity Strained Days.

Sources: 19.1.14.-19., 19F1.SF.6.

Chapter 5. Financial conditions in emerging markets

Emerging Markets (EMs): Equity Benchmarks, Currencies against the US Dollar, US and Emerging Market Credit Spreads, Frontier Issuance and Spreads.

EM Foreign Exchange (FX) Changes and Their Credit rating components, FX Returns and volatility. EM Regional Equity Return Spillovers Indices

Recent Pressures and Outlook for Portfolio Flows to EMs. Nonresident Portfolio Flows to EMs. Estimated Cumulative Impact of External Factors on EMs Portfolio Flows. Cumulative EMs Equity Fund Flows and Bond Fund Flows.

EM Vulnerabilities to Portfolio Flow Reversals. Model Estimates for Debt Portfolio Flows under a Severely Adverse Scenario and under Risk-Aversion Scenario.

EM Vulnerabilities: External Sector Heatmap, Public Sector Heatmap, External Debt versus Foreign Exchange Reserve Coverage, Sovereign Debt versus Foreign Exchange Linked Debt.

Reserve Buffers and Potential Foreign Exchange Liquidity Needs. Potential Balance of Payment Drains. Composition of External Liabilities and Derivatives.

The Investor Base for EM Sovereign and Corporate Debt. Foreign Holders of Sovereign Debt. Total EM Corporate Issuance and by Region. Holders of Hard-Currency Corporate Debt.

Assets Benchmarked to JP Morgan EM Indices and Market Capitalization. Share of ETFs and Passive Funds as a Percentage of Asset Class.

Benchmark-Driven Portfolio Flows to EMs. Correlations between Flows to a Particular EM Country and Overall EM Flows.

Sensitivity of Debt Flows to External Shocks. Sensitivity of Benchmark-Driven Debt Flows to External Factors. Estimated Outflows from Benchmark-Driven Investors in Response to a One Standard Deviation Shock.

Sources: 19F1.20, 18F1.12, 19F1.21, 18F1.15-18, 19F1.22-23.

Chapter 6. Selected indicators of China financial system.

Emerging Market and Frontier Debt Characteristics and the Impact of Chi-na's Inclusion in Benchmark Indices. Frontier Notional Debt Outstanding by Rating. Potential Additional Inflows to China from Index Inclusions.

Impact of Regulatory Tightening on Credit Expansion. Contribution to Bank Asset Growth. Net Increase in Credit. Wealth Management Product Yield and Three-Year Corporate Bond Yield.

Bank Balance Sheet Weaknesses. Return on Assets. Core Tier 1 Capital Ratio. Estimated Aggregate One-Year Loan Growth Capacity. Small and Medium-Sized Banks.

Impact of Tightening Financial Conditions on Nonfinancial Firms. Increase in Nonfinancial Credit by Sector. Average Bond Spreads for AAA-Rated Local Government SOE. Bond Market Net Issuance: Annualized Growth Rate by Sector and Grade. Median Liabilities to EBITDA Ratio. Corporate Debt-at-Risk: Share of Debt of Firms with Interest Coverage Ratio <1 .

Frontier Debt Vulnerabilities: Frontier Debt International Bond Issuance. Share of Frontier Issuers by Secondary Market Yield.

Share-Collateralized Lending: Market Share and Debt-Servicing Capacity. Market Share of SCL-Reliant Privately Owned Enterprises. Debt-Servicing Capacity of SCL-Reliant Firms versus All Listed Firms.

Chinese Bond Market Developments. Annual Growth by Country and Bond Type (US vs China). Rolling 60-Day Sum of Daily Bond Trading to Outstanding Total and One-Month SHIBOR Interbank Interest Rate. Chinese Bond Market: Repo Borrowing Outstanding and Trading Volumes. One-Month SHIBOR Inter-bank Interest Rate and Repo Borrowing.

Sources: 19F1.24-28, 9F1.1.1, 18F1.5.1.

Chapter 7. Indicators of housing market and related financial tools

Historical Developments in Real House Prices. Advanced Economies: Annual Change in Real House Prices – total changes and changes in selected economies and cities. Emerging Market Economies: Annual Change in Real House Prices – total changes and changes in selected economies and cities

Frequency Distribution of Real House Price Growth: Advanced Economies, Emerging Market Economies, One-year change, Three-year change.

Determinants of Real House Prices: financial conditions, real GDP and Real House Price Growth, Ratio of Credit to GDP, Ratio of Price to GDP per Capita.

Impact of Four Factors on Real House Price Actual Growth and on Future Prices in Advanced Economies and Emerging Market Economies.

Evolution of House Prices at Risk (HaR) and Shifts in Riskiness: Advanced Economies, Emerging Market Economies, One-Year-Ahead HaR, Three-Year-Ahead HaR, in 2007 and 2017.

Predictive Distributions of House Price Risks (Real House Price Growth) One Year Ahead, Short- and Medium-Term Risk.

Factors Affecting House Prices at Risk in the United States and China to One-Year HaR.

City- and Country-Level Comparisons of House Prices at Risk: Advanced Economies and Emerging Market Economies - One- and Three-Year-Ahead HaR Panel Quantile Regression Model.

House Prices at Risk and Financial Stability: Regression Coefficients of HaR in GaR and on a Financial Crisis.

Effects of Macroprudential and Monetary Policy and Capital Flows on House Prices at Risk in Advanced Economies and Emerging Market Economies. Capital Inflow and Real Estate Restrictions.

Synchronization of HaR at Global Level, within Different Country Groups, by Level of Financial Openness, by Level of Capital Flow Controls to Real Estate Sector.

Downside Risks to House Prices in the United States and Canada. Downside Risks to House Prices across US Cities and across Canadian Cities. Capital Flows as Drivers of HaR in the United States and in Canada.

Impact of a One Standard Deviation Factor Shock on House Prices at Risk across China's Provinces. Three-Year-Ahead House Prices at Risk and Valuation across Regions in China
Sources: 19F2.1.-9, 19F2.11, 19F2.12, 19F2.1.1, 19F2.2.1., 19F2.3.1.-2.

6. List of teaching and methodological materials needed for the students self-study

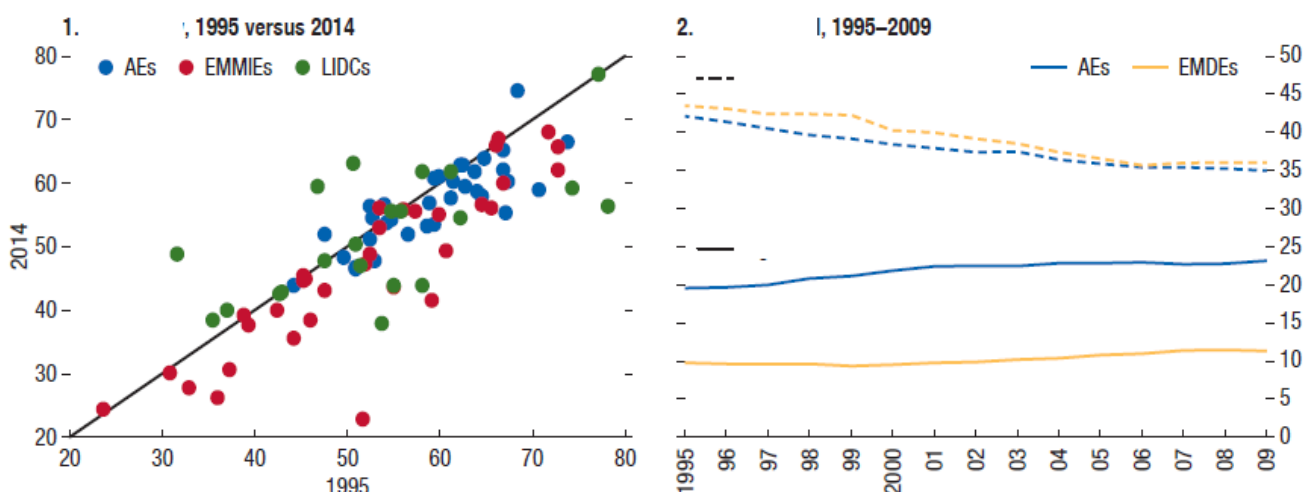
6.1. List of questions for student self-study and types of out-of-class activities

Table 3

№ ТЕ М Ы	Itemized subject content	Questions the students should answer within the self-study process	Types of out-of-class activities
1	Key indicators of global financial system	Structural Changes in Market Liquidity. GSIB Trading Portfolios by Region and by Bank. Estimated Adoption of Algorithmic Trading by Market. Central Bank Holdings as a Share of Government Bonds Outstanding. Evolution in Market Liquidity. Market Liquidity Heatmap. Bloomberg Liquidity Index. One-Month Standard Deviation of Bid-Ask Spreads in Italy Sovereign Benchmark Bonds. Equity Volatility, High-Yield Spreads, and Days with Liquidity Strain.	Mandatory reading, searching in web sites of finance ministries and census bureaus
2	Key corporate finance indicators	Market Size and Domestic Investor Base. Size of International and Domestic Bond Markets. Foreign Investors, Domestic Investor Base, and Market-Liquidity Measures. Frontier Markets: Bond Issuance and Redemptions by geographic areas.	Mandatory reading, searching in web sites of finance ministries and census bureaus

3	Key characteristics of banking system	New Sources of Risk and Vulnerabilities. Shadow Banking in S29 Countries. Domestic Bank Holdings of General Government Debt Securities. CCPs and Other Counterparties in Derivatives Clearing. Global Fintech Investment Backed by Venture Capital. Cyber Risks.	Mandatory reading, searching in web sites of finance ministries and census bureaus
4	Features of European banking system	Brexit Event Study on Jumps and Market Liquidity: Market Liquidity Strain around Key News Events, Frequency of Liquidity Strained Days.	Mandatory reading, searching in web sites of finance ministries and census bureaus
5	Financial conditions in emerging markets	Sensitivity of Debt Flows to External Shocks. Sensitivity of Benchmark-Driven Debt Flows to External Factors. Estimated Outflows from Benchmark-Driven Investors in Response to a One Standard Deviation Shock.	Mandatory reading, searching in web sites of finance ministries and census bureaus
6	Selected indicators of China financial system.	Chinese Bond Market: Repo Borrowing Outstanding and Trading Volumes. One-Month SHIBOR Interbank Interest Rate and Repo Borrowing.	Mandatory reading, searching in web sites of finance ministries and census bureaus
7	Indicators of housing market and related financial tools	Impact of a One Standard Deviation Factor Shock on House Prices at Risk across China's Provinces. Three-Year-Ahead House Prices at Risk and Valuation across Regions in China	Mandatory reading, searching in web sites of finance ministries and census bureaus

6.2. List of questions/assignments/topics for students' preparation to formative assessment



1.1. Write the headline for both graphs

1.2. Comment the dynamic of the indicators

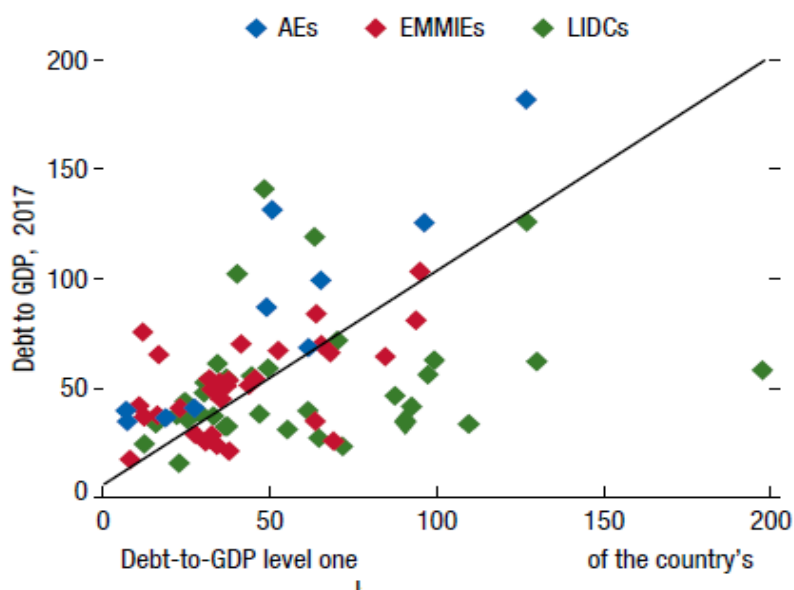
1.3. Describe the influence of the indicator to the structure of public budget revenues

Table 1.3. Selected Advanced Economies: , 2019–21

	2019			2020			2021		
Australia	1.6	1.5	3.0	2.6	0.7	3.3	2.4	0.0	2.3
France	10.2	3.3	13.5	11.4	2.4	13.8	10.6	2.5	13.1
Germany	4.7	-1.1	3.5	4.8	-1.1	3.8	2.9	-0.8	2.1
Italy	21.0	2.7	23.7	20.6	3.4	24.0	21.2	3.5	24.7
Japan	36.7	2.8	39.5	36.3	2.1	38.5	31.2	1.9	33.0
Sweden	4.3	-0.5	3.7	3.7	-0.3	3.4	1.2	-0.3	0.9
Switzerland	1.6	-0.3	1.4	1.4	-0.2	1.2	1.3	-0.2	1.1
United Kingdom	8.2	1.3	9.5	7.4	1.1	8.5	6.6	1.1	7.7
United States ³	20.5	4.6	25.1	20.5	4.4	24.9	17.6	4.4	21.9
Average	16.5	2.6	19.1	16.5	2.4	19.0	14.3	2.4	16.7

2.1. Complete the headline of the table, measure and the three columns names (for one year)

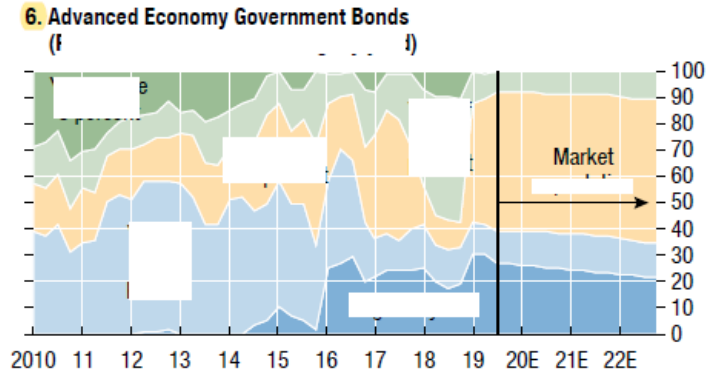
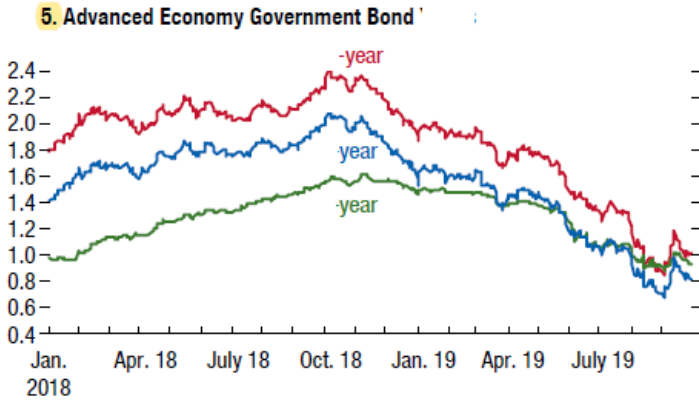
2.2. Select two different countries and compare their figures, including the level of risk



3.1. Complete the headline of the graph and the axis Y

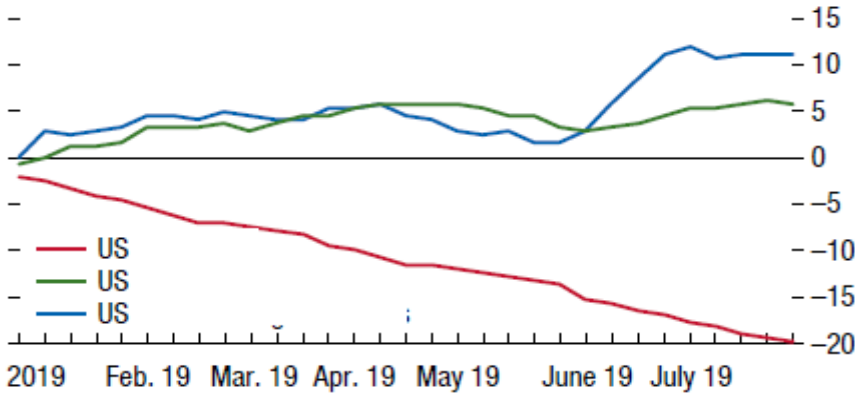
3.2. Comment the graph performance in general

3.3. Write the factors pro less risky situation in 2017 than before (only the list of the factors)



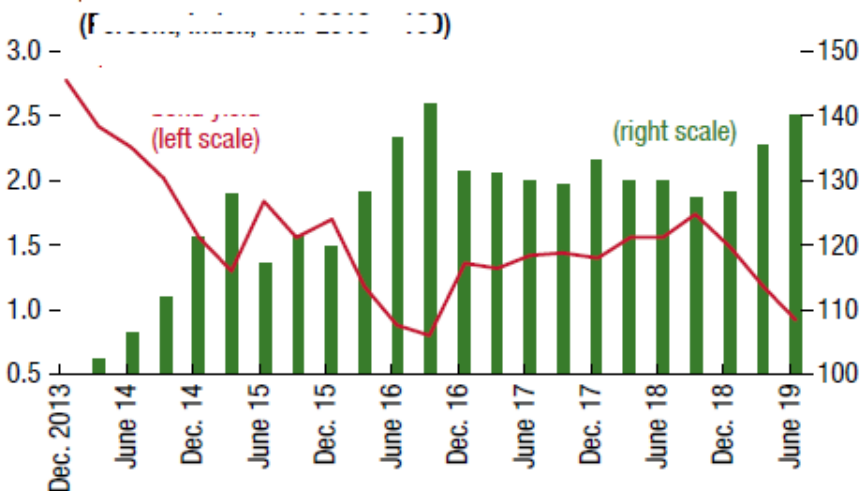
- 4.1. Complete the headline of the left graph, the measure of the left and the right graph
- 4.2. Comment the graph dynamic
- 4.3. Specially comment the controversy of the right graph dynamic before and after vertical line in 2019

2. Cumulative to US



- 5.1. Complete the headline of the graph, its measure and the three lines names
- 5.2. Write the key reason of the lines dynamic and the linkage with US treasury market
- 5.3. Comment the likelihood of market bubble in listed segment of financial market and its influence public budget deficit

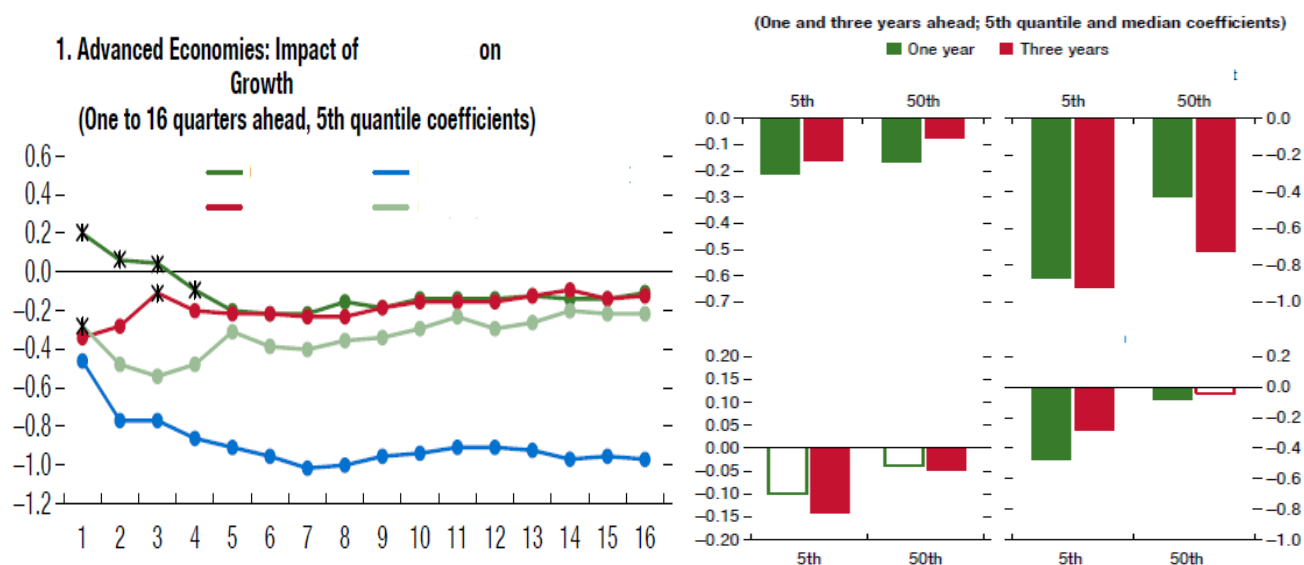
4. Pension Funds:



6.1. Write the headline of the graph, it's measure, the lines names

6.2. Comment the graph dynamic

6.3. Describe the linkages of the right line dynamic and future expenditures of public budget



7.1. Complete the headline and axes of the graphs

7.2. Comment the graph dynamic

7.3. Describe the linkages of the lines dynamic and public budget deficit

7. Mandatory and optional reading list

Mandatory reading list

1. IMF Global Financial Stability Report. Vulnerabilities in a Maturing Credit Cycle. April 2019. [free on-line access]:

<https://www.imf.org/en/Publications/GFSR/Issues/2019/03/27/Global-Financial-Stability-Report-April-2019>

2. IMF Global Financial Stability Report. A Decade after the Global Financial Crisis. October 2019. [free on-line access]:

<https://www.imf.org/en/Publications/GFSR/Issues/2018/09/25/Global-Financial-Stability-Report-October-2018>

Optional reading list

3. Russian Federation. IMF Country Report № 18/275. Article IV Consultation – press release and staff report. September 2018.

<https://www.imf.org/en/Publications/CR/Issues/2018/09/12/Russian-Federation-2018-Article-IV-Consultation-Press-Release-Staff-Report-46226>

4. China. IMF Country Report № 18/240. Article IV Consultation – press release and staff report. July 2018.

<https://www.imf.org/en/Publications/CR/Issues/2018/07/25/Peoples-Republic-of-China->

2018-Article-IV-Consultation-Press-Release-Staff-Report-Staff-46121

5. United States. IMF Country Report № 18/207. Article IV Consultation – press release and staff report. July 2018.

<https://www.imf.org/en/Publications/CR/Issues/2018/07/03/United-States-2018-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-46048>

E-resources

1. International Monetary Fund <http://www.imf.org>
2. Ministry of Finance of the Russian Federation <http://www.minfin.ru>
3. Bank of Russia <http://www.cbr.ru>
4. Ministry of economic development of the Russian Federation <http://economy.gov.ru/en/home>
5. World Bank www.worldbank.org
6. OECD www.oecd.org

8. List of IT resources, incl. the list of software, information and reference systems (as appropriate).

8. 1. Software:

1. Windows, Microsoft Office software;
2. ESET Endpoint Security antivirus software; etc.

8.2. Databases and information and reference systems

E-resources

1. Garant information and reference system;
2. Consultant Plus legal information system;

8.3. Certified software/hardware used for information protection

No such software/hardware is used.