

Government bond markets

Characteristics and issues related to market development

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Motivation

What is special about the government bond market?

- | Government bond market is the world's largest bond market.
- | Government bond markets play a crucial role in financing government spending in most countries worldwide.
- | Government bond yields serve as a benchmark for capital costs and long-term bank loans.
- | In order to foster the development of domestic government bond markets, a profound knowledge of the characteristics of the government bond market is needed.

Motivation

Reasons to develop local government bond markets

- | Several international initiatives have been launched over the last 15 years to (further) develop local bond markets in emerging markets and developing countries.
 - E.g. G8 action plan (2007); G20 action plan (2011)

- | Local bond markets can be expected to:
 - improve financial stability by reducing currency mismatches.
 - improve economic efficiency through qualified decisions on resource allocation in lending and market based pricing.
 - relieve pressure caused by credit and maturity risks on the banking system, diversify capital flows and in this way mitigate international financial market turmoil.

Aim of presentation

| The presentation offers a basic understanding of how the government bond market works:

- What is the structure of the government bond market?
- What are the characteristics of the primary market?
- How does the issuance of government bonds work?
- What are the characteristics of the secondary market?

| ... providing guidance and a basis:

- For an analysis of the structure and functioning of the primary government bond market.
- For a better understanding of the secondary government bond market.
- For a deeper discussion of individual aspects of the government bond market in your country.

Agenda

- I. Facts and figures of the government bond markets
- II. The primary market for government bonds
- III. The secondary market for government bonds
- IV. Determinants for local government bond markets
- V. Summary

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Facts and figures of government bond markets

Reflection

| What is a government bond?

Facts and figures of government bond markets

Definition of government bonds

- | A government bond is a **debt security** issued by the government to support government spending.
- | In general, the **maturity** of a government bond is **fixed** (exception: perpetual bonds with no maturity date, e.g. consols issued in the USA).
- | Usually the holder of the bond is entitled to **receive periodic payments** (→ coupon payment) - exception: zero-coupon government bonds.
- | When bonds reach maturity, the holder of the bond **will be repaid the principal** (also called face value). This is the amount of money borrowed by the bond issuer.

Facts and figures of government bond markets

Structure of the government bond market

Reflection

- | What is the difference between primary and secondary markets and between money and capital markets?

Facts and figures of government bond markets

Structure of the government bond market

Primary vs. secondary markets

- Distinguishing characteristic: **purpose** for savers and borrowers.
- **Primary markets** are markets in which financial market products are initially sold. Their main purpose is to **raise funds**.
- **Secondary markets** are markets in which financial market products are bought and sold among financial investors. They **provide liquidity and opportunities for risk and maturity management**.

Money vs. capital markets

- Distinguishing characteristic: **maturity** of the traded financial instruments
- Maturities of less than a year (short-term) are issued and traded on the **money market** (e.g. US Treasury bills)
- Instruments with a maturity greater than one year (longer-term) are issued and traded on the **capital market** (e.g. US Treasury bonds)

Facts and figures of government bond markets

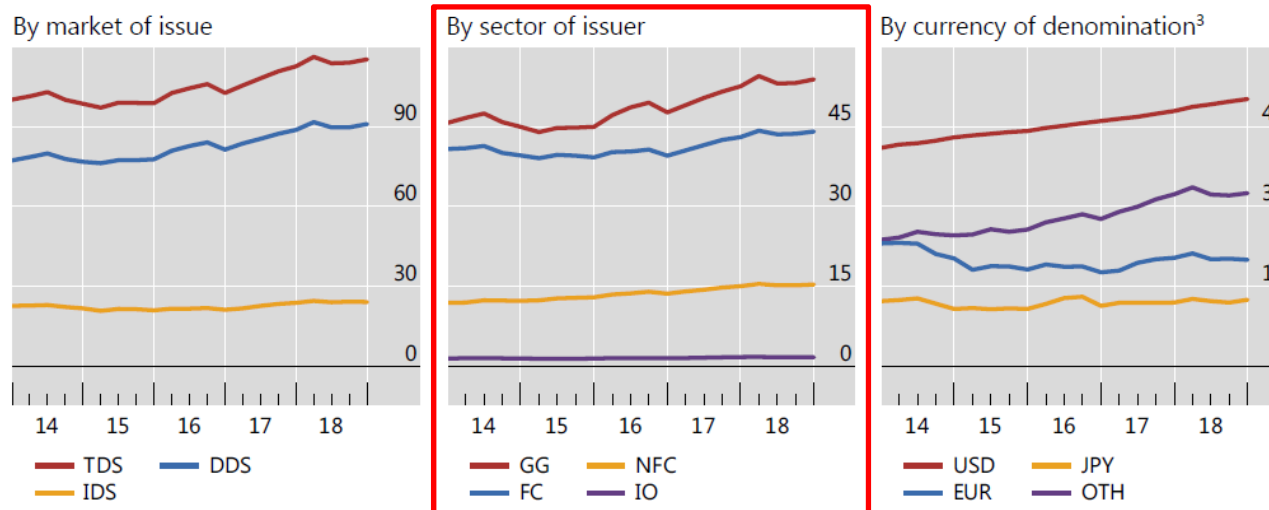
Size of the global government bond market

The amount of global **debt securities** issued by general governments exceeds **\$45 trillion** (as of end of 2018)

Global debt securities markets¹

Amounts outstanding, in trillions of US dollars²

Graph C.1



DDS = domestic debt securities; IDS = international debt securities; TDS = total debt securities.

FC = financial corporations; GG = general government; HH = households and non-profit institutions serving households; IO = international organisations; NFC = non-financial corporations.

Further information on the BIS debt securities statistics is available at www.bis.org/statistics/secstats.htm.

¹ Sample of countries varies across breakdowns shown. For countries that do not report TDS, data are estimated by the BIS as DDS plus IDS. For countries that do not report either TDS or DDS, data are estimated by the BIS as IDS. ² At quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ³ Where a currency breakdown is not available, DDS are assumed to be denominated in the local currency.

Sources: Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS debt securities statistics; BIS calculations.

Facts and figures of government bond markets

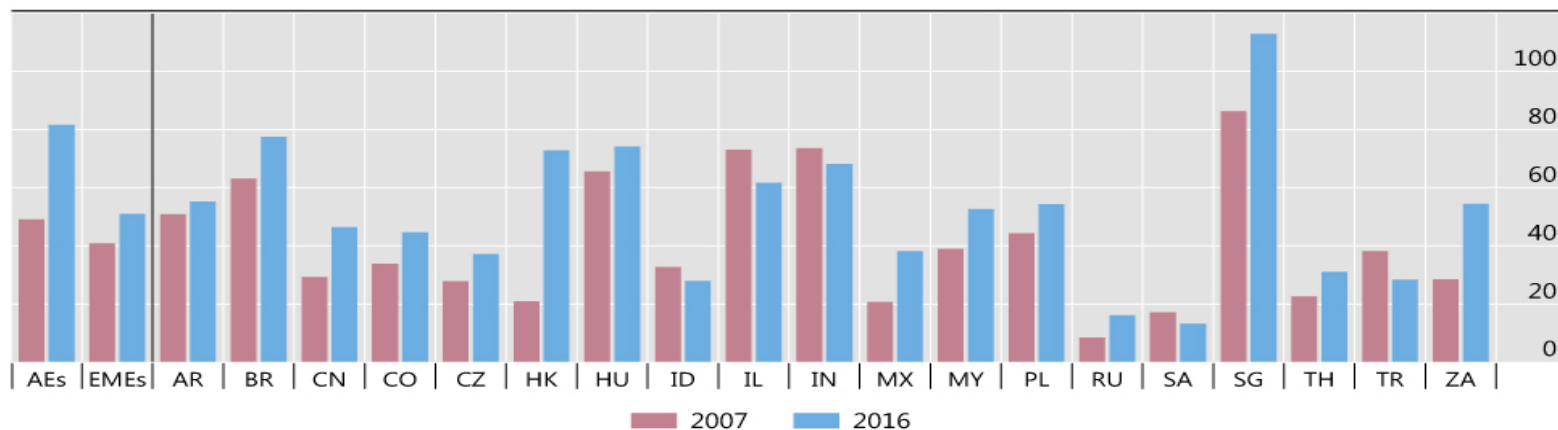
Government bond markets in developed and emerging market countries

- Government **debt** in advanced economies as share of GDP **increased** from ca. 50% to 80% (2007-2016); EME government debt rose from 41% to 51% (2007-2016)
- EME governments increasingly use bond markets**: share of borrowing through debt securities rose from 62% (2002) to 80% (2016) - mostly using local currencies, longer maturities and fixed rates

General government debt to GDP¹

At end-year, in per cent

Graph A1



AEs = AU, BE, CA, DE, ES, GB and US. EMEs = AR, BR, CN, CO, CZ, HK, HU, ID, IL, IN, MX, MY, PL, RU, SA, SG, TH, TR and ZA.

¹ Nominal values.

Source: BIS total credit statistics.

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Facts and figures of government bond markets

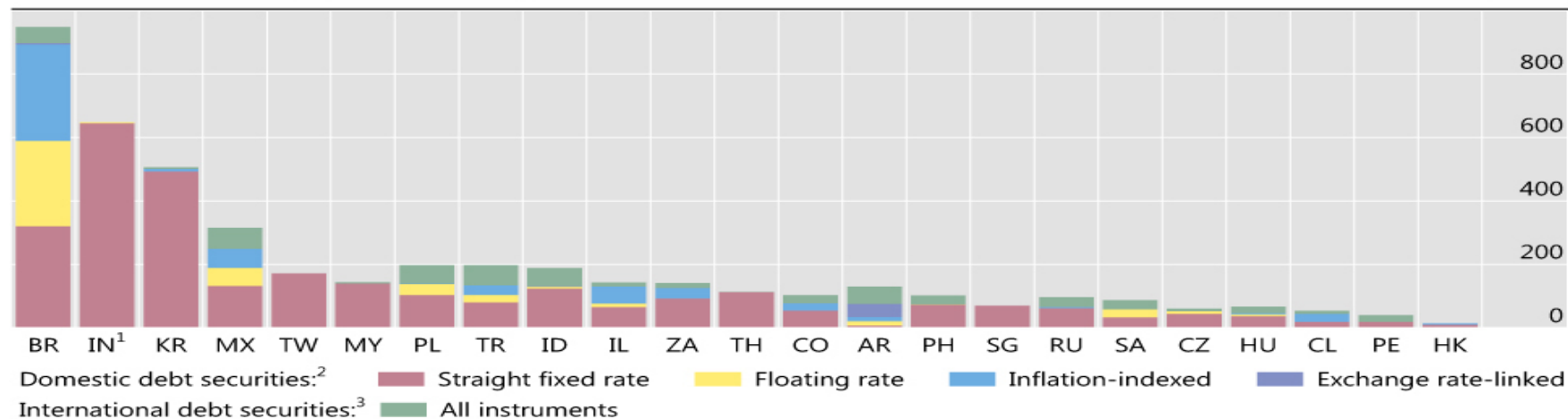
Government bond markets in emerging market countries

Total EME government borrowing (of 23 jurisdictions below) reached \$4.4 trillion, of which 14% denominated in or linked to foreign currencies as at 2016 (down from 32% as at 2001)

EME central government debt securities

Amounts outstanding by instrument type and residence at end-2016, in billions of US dollars

Graph A2



¹ At end-2015. ² Bonds and notes issued in domestic market with original maturity exceeding one year. ³ Debt securities where the country information associated with registration domain (ISIN), listing place or governing law is different from the country of residence of the issuer. All instruments, all maturities.

Sources: Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS calculations.

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Source: BIS Quarterly Review Sep 2017

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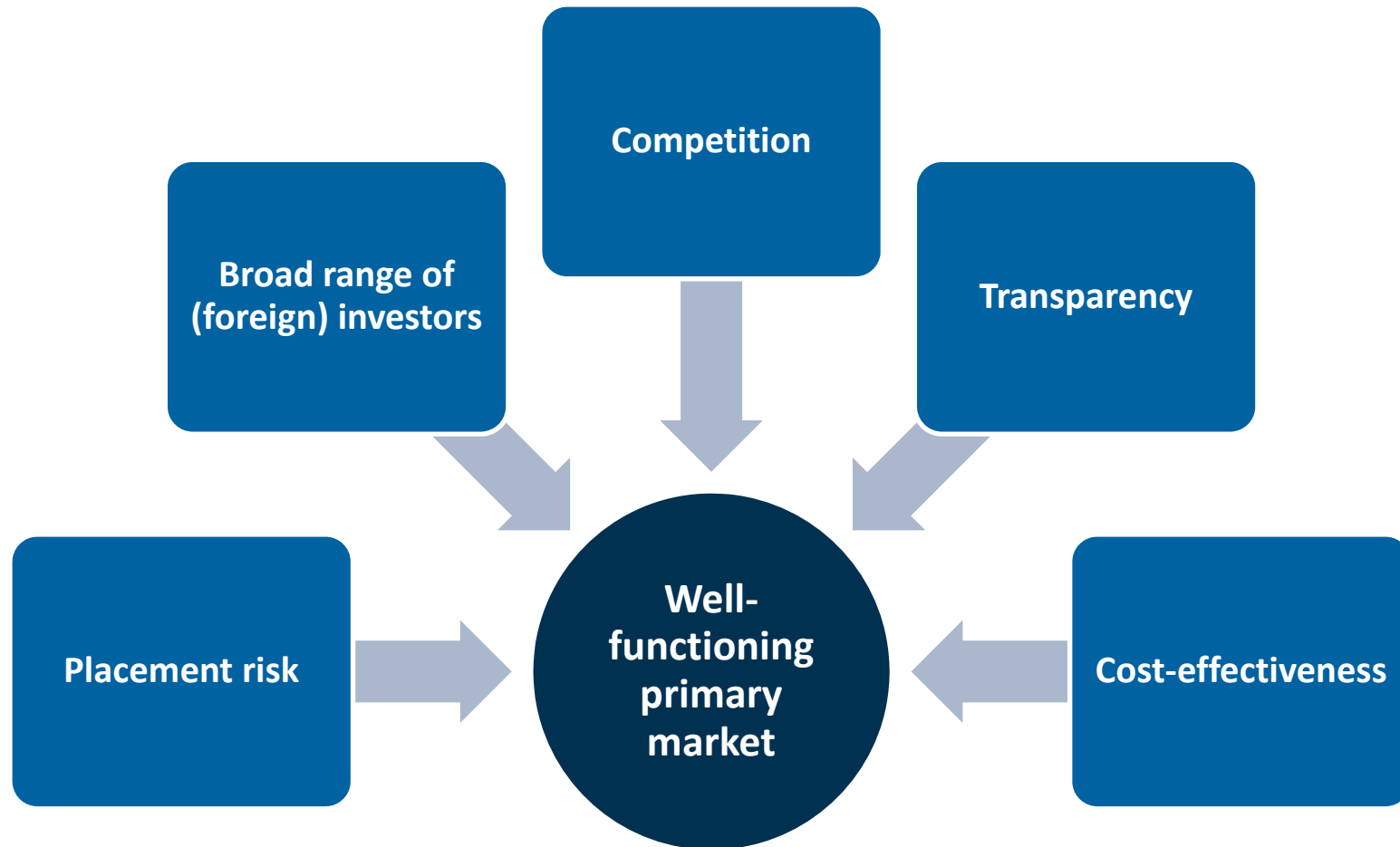
Primary market for government bonds

Management objectives

- | Governments might have differing objectives when they manage a local bond market:
 - Cheap debt management
 - Short-term/ Long-term debt management
 - **Reliable debt management**
 - Other

Primary market for government bonds

Characteristics of a well-functioning primary market



Primary market for government bonds

Issuance of government bonds

Issuing techniques for government bonds

Auctions

Syndication

Underwriting

Tap sales

Private
placement

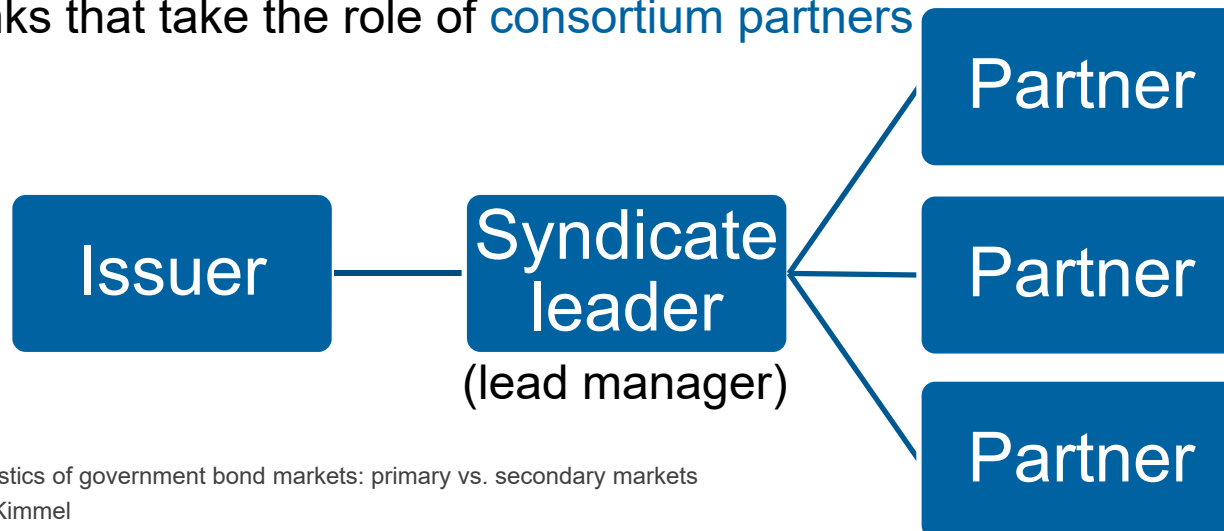
Combination
of
techniques

- | The choice of issuing technique for government bonds depends on the **stage of primary market development** of a country.
- | **Auctions** are widely used in developed countries, because they proved to be more **cost effective** and **transparent** than other methods.
- | **Syndication, underwriting or tap sales** may fit better to developing primary markets than auctions (risk of collusion due to small numbers of bidding institutions).

Primary market for government bonds

Issuance of government bonds: syndication procedure in Germany

- | The **issuer** agrees on the terms of the bond with the **syndicate leader**. This is usually a single commercial bank or a group of large commercial banks.
- | The lead manager usually **guarantees that the full amount** of the bond is placed in the market. For this service they charge the borrower a **fee**.
- | The **large volume** of a bond means a lot of **concentration risk** for the lead manager.
- | To **mitigate this risk**, parts of the loan get **distributed** to other commercial banks that take the role of **consortium partners**



Primary market for government bonds

Issuance of government bonds: auction procedure in Germany

- | When using the auction procedure, the issuer has **direct contact to the market**.
- | Usually, a **limited number** of banks are allowed to submit bids. In Germany, this group is called the **Bund Issues Auction Group**.
- | Because there is **no intermediary**, there are **no service fees** the issuer has to pay. However, they have to **organise and execute** the auction.
- | This also means **nobody guarantees** that the **full amount** of the new bond will be placed in the market.



Primary market for government bonds

Issuance of government bonds: auction procedure in Germany Submission of bids

| Two kinds of bids are allowed:

- **Competitive bids** (price and amount are determined by the bidder)
- **Non-competitive bids** (just the amount, price is automatically set to the weighted average of the allotted competitive bids)

| Example:

	Amount: EUR mn	Price bid: %
Bid 1	150	106,30
Bid 2	200	106,29
Bid 3	250	106,28
Bid 4	600	

Primary market for government bonds

Issuance of government bonds: auction procedure in Germany

Reflection

| How can the right price be found?

| From the perspective of the issuer: What else might be worth considering?

Primary market for government bonds

Issuance of government bonds: auction procedure in Germany

Ways of finding the right price for the bids

One possibility for banks is to look at the **secondary market prices** of the bond.

- The bond already exists and the auction increases the volume of an existing ISIN.
- The bond is already traded pre-auction.

BLOOMBERG

DBR 0 1/4 02/15/29 € **↑106.279** +.207 106.263 / 106.294 -.388 / -.391

DBR 0 1/4 02/15/29 Corp Setup Notierungen

16:43:40 ALLX-Modus Axes einbl. Bid/Offer teil. 94 Switch 95 Buy 96 Sell

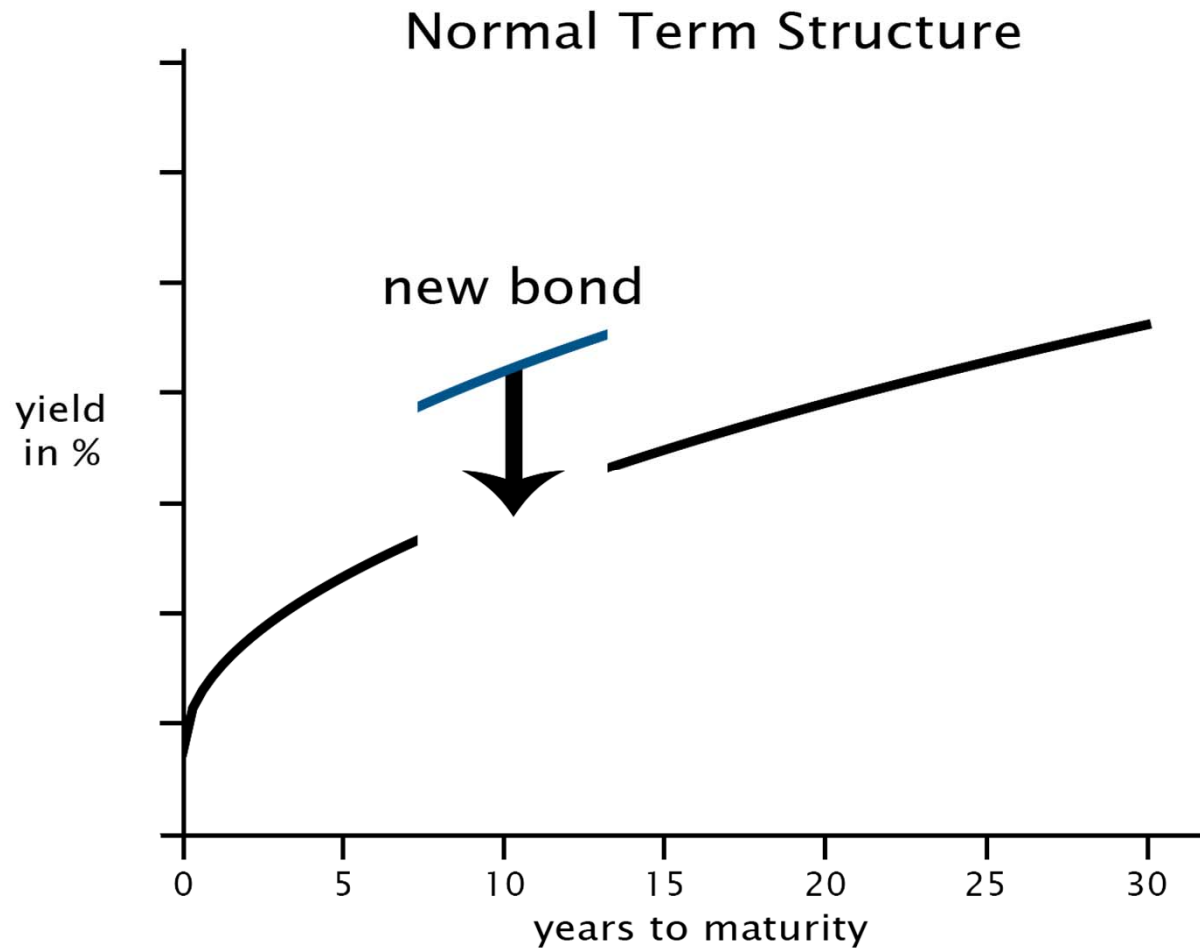
Sprds vs. DBR 0 1/4 02/15/29 @CBBT 106.263 / 106.294 -.382 / -.385 16:43

Filter bearb. 93) Legende

PCS	Firmenname	GldPrs / BrfPrs	GeldRdte / BriefRdte	GMge(MM) x BMge(MM)	Zeit ↓
20)	CBBT FIT COMPOSITE	106.263 / 106.294	-.388 / -.391	x	16:43
21)	BVAL BVAL (Score: 10)	106.218 / 106.225	-.386 / -.386	x	16:00
22)	Ltzt. Transaktion	106.266	--	.188	d16:25
23)	NXIG NATIXIS GOVT AUTOEX	106.242 / 106.312	-.380 / -.386	51 x 51	16:43
24)	CBKG COMMERZBANK	106.273 / 106.288	-.383 / -.384	50 x 50	16:43
25)	MZHO MIZUHO INTL	106.252 / 106.272	-.382 / -.384	31 x 31	16:43
26)	BARX BARCLAYS BANK PLC.	106.268 / 106.319	-.383 / -.388	25 x 25	16:43
27)	DBEX DANSKE BK	106.257 / 106.279	-.383 / -.385	25 x 25	16:43
28)	NOLB NORD LB	106.265 / 106.295	-.382 / -.385	25 x 25	16:43

Characteristics of government bond markets: primary vs. secondary markets
Charlotte Kimmel

Primary market for government bonds
Issuance of government bonds: auction procedure in Germany
Ways of finding the right price for the bids



Primary market for government bonds
Issuance of government bonds: auction procedure in Germany
Auction result

| Overview of the resulting bidder list (example):

No.	Price in %	Bids per price	Price bids accumulated	Total bids accumulated	Weighted average price in %
1	non-competitive	650	-----	650	-----
2	106,31	100	100	750	106,31
3	106,30	150	250	900	106,304
4	106,29	300	550	1.200	106,296364
5	106,28	275	825	1.475	106,291
6	106,27	25	850	1.500	106,29094

Primary market for government bonds

Issuance of government bonds: auction procedure in Germany

Auction result: Allotment (multiple price method)

1) Fixing the lowest accepted price

- Bids below the lowest accepted price are **not** considered.

2) Fixing the allotment rate for the marginal price bids

3) Fixing the allotment rate for the non-competitive bids

No.	Price in %	Bids per price	Price bids accumulated	Total bids accumulated	Weighted average price in %
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Primary market for government bonds

Issuance of government bonds: general considerations

Key considerations for an effective issuing strategy for government bonds:

Establishment of government debt office

- Evaluation of strategic options (i.e. how to raise funds)
- Support the operation of government bond issuance (e.g. record-keeping, debt servicing)

Issuance planning

- Analysis and prediction of government funding needs

Maturity structure issued bonds

- Achieve a stable redemption profile across yield curve
- Keep rollover (refinancing), exchange rate and interest rate risk to a minimum

Counterparty analysis

- Evaluate financial sophistication and risk management knowledge of counterparty

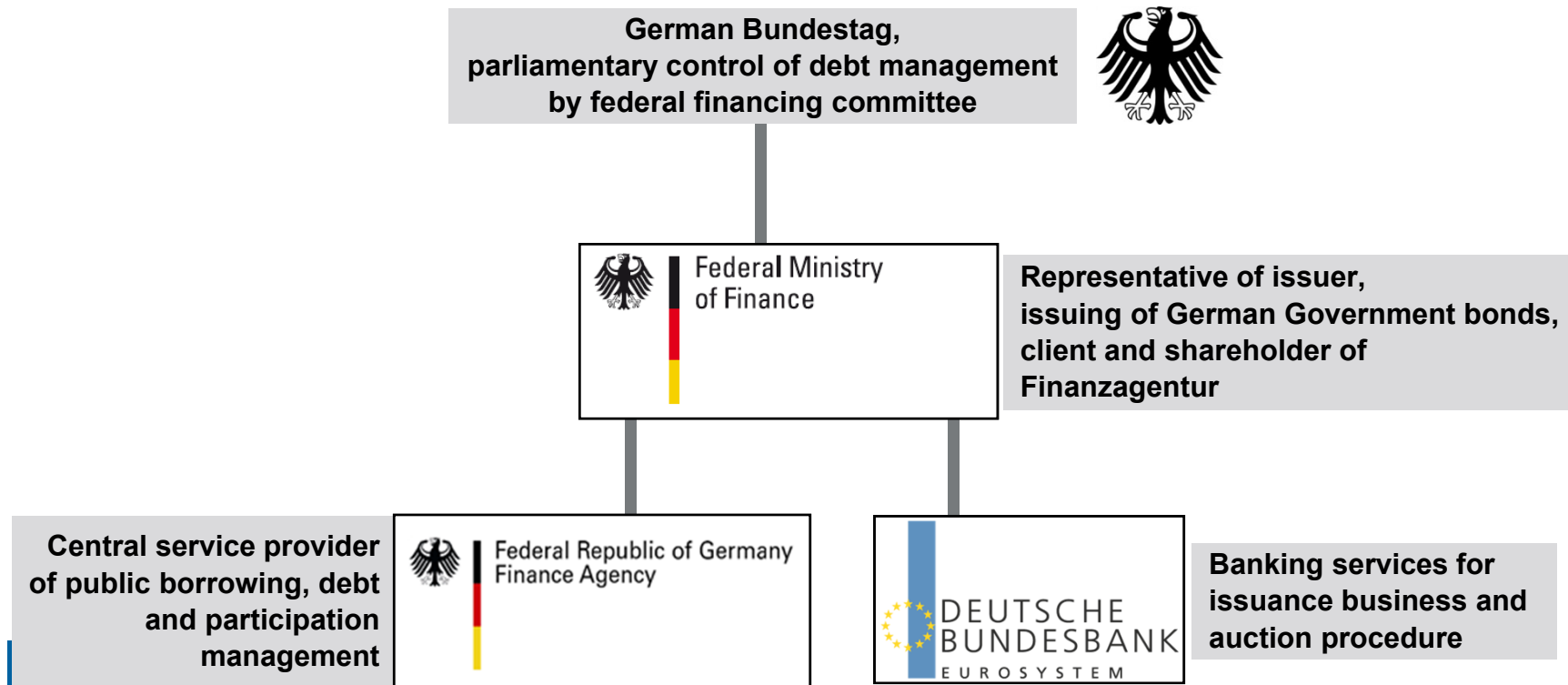
Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

Key considerations for an effective issuing strategy of government bonds:

Establishment of government debt office

- Evaluation of strategic options (i.e. how to raise funds)
- Support the operation of government bond issuance (e.g. record-keeping, debt servicing)



Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

I Institutional Framework in Germany: **The German Finance Agency**

I www.deutsche-finanzagentur.de

I Established in September 2001, private limited company, wholly-owned by the Federal Republic of Germany. Purpose: Professional debt management in the name and for the account of the Federal Republic of Germany.

I Responsibilities:

- Decides on debt instruments and fixes the conditions of the Federal securities.
- Publishes the issuance calendar.
- Reduces interest costs.
- Ensures the benchmark status of German Federal securities in the European government bond market.

Primary market for government bonds **Issuance of government bonds (cont.) – case study Germany**

Reliable debt management how it is done by the **German Finance Agency**:

| **Main Goal**: reaching a target-portfolio with an optimized relation between risk (interest rate risk, refinancing risk) and interest costs

| **Means to reach that goal**:

- structuring the yearly issuance calendar with a strong view on the market circumstances as well as the target-portfolio
- using interest rate swaps to optimize average maturity
- improving the diversification of the debt portfolio with the help of new instruments (example: inflation-linked bonds and notes); BUT: concentration on the existing 2-, 5-, 10- and 30-year fixed rate strategies to keep them as liquid as possible

| **Performance-target of Finanzagentur**: saving interest costs against the reference portfolio

Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

Institutional Framework in Germany: **Bundesbank**

www.bundesbank.de

Bundesbank as „fiscal agent“ of the Federal Government and provider of bank services to the German Finance Agency is involved in managing Federal debt by:

- Providing the primary market platform Bund Bidding System (BBS) and technical handling of auction procedures.
- Price management operations with German Federal securities through the German stock exchanges.

Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

I Key considerations for an effective issuing strategy of government bonds:

Establishment of government debt office

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Issuance planning

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Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

Issuance planning as published on the website of the German Finance Agency (https://www.deutsche-finanzagentur.de/fileadmin/user_upload/pressemeldungen/en/2018/2018-12-18_pm08_EK2019_en.pdf)

Annex 1 - Annual preview 2019: aggregate monthly auction volumes
(€ bn, nominal Federal Government securities)

Security	Volume	Share in %	1st quarter			2nd quarter			3rd quarter			4th quarter		
			Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Schatz 2 Y	55	27.6	5	5	4	4	5	5	4	5	5	4	5	4
Bobl 5 Y	43	21.6	4	4	4	3	6		4	4	4	7	3	
Bund 10 Y	44	22.1	7	3	3	3	3	3	7	3	3	3	3	3
Bund 30 Y	14	7.0	1.5	1.5	1	1	1	1	1	2	1.5	1	1.5	
Capital market	156	78.4	17.5	13.5	12	11	15	9	16	14	13.5	15	12.5	7
			43			35			43.5			34.5		
Bubill 6 M	43	21.6	5	3	4	3	4	3	4	3	4	3	4	3
Money market	43	21.6	5	3	4	3	4	3	4	3	4	3	4	3
			12			10			11			10		
Year total:	199	100	22.5	16.5	16	14	19	12	20	17	17.5	18	16.5	10
			55			45			54.5			44.5		

Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

- Issuance planning as published on the website of the German Finance Agency (https://www.deutsche-finanzagentur.de/fileadmin/user_upload/pressemeldungen/en/2018/2018-12-18_pm08_EK2019_en.pdf)

Date	Security	Term to maturity	Type	Volume in € mn	Maturity	ISIN	Coupon	Start of interest period	First coupon date
Wed, 03-Jul-19	Bobl	5 Y	N	4,000	18-Oct-24	DE0001141802		05-Jul-19	18-Oct-20
Wed, 10-Jul-19	Bund	10 Y	N	4,000	15-Aug-29	DE0001102473		12-Jul-19	15-Aug-20
Wed, 17-Jul-19	Bund	30 Y	R	1,000	15-Aug-48	DE0001102432	1.250 %	15-Aug-17	15-Aug-18
Tue, 30-Jul-19	Schatz	2 Y	R	4,000	11-Jun-21	DE0001104768		30-May-19	11-Jun-20
Wed, 31-Jul-19	Bund	10 Y	R	3,000	15-Aug-29	DE0001102473		12-Jul-19	15-Aug-20
Wed, 07-Aug-19	Bobl	5 Y	R	4,000	18-Oct-24	DE0001141802		05-Jul-19	18-Oct-20
Wed, 21-Aug-19	Bund	30 Y	N	2,000	15-Aug-50	DE0001102481		15-Aug-19	15-Aug-20
Tue, 27-Aug-19	Schatz	2 Y	N	5,000	10-Sep-21	DE0001104776		29-Aug-19	10-Sep-20
Wed, 28-Aug-19	Bund	10 Y	R	3,000	15-Aug-29	DE0001102473		12-Jul-19	15-Aug-20
Wed, 04-Sep-19	Bobl	5 Y	R	4,000	18-Oct-24	DE0001141802		05-Jul-19	18-Oct-20
Wed, 18-Sep-19	Bund	30 Y	R	1,500	15-Aug-50	DE0001102481		15-Aug-19	15-Aug-20
Tue, 24-Sep-19	Schatz	2 Y	R	5,000	10-Sep-21	DE0001104776		29-Aug-19	10-Sep-20
Wed, 25-Sep-19	Bund	10 Y	R	3,000	15-Aug-29	DE0001102473		12-Jul-19	15-Aug-20
3rd quarter total				43,500					

Characteristics of government bond markets: primary vs. secondary markets
Charlotte Kimmel

Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

Key considerations for an effective issuing strategy of government bonds:

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Issuance planning

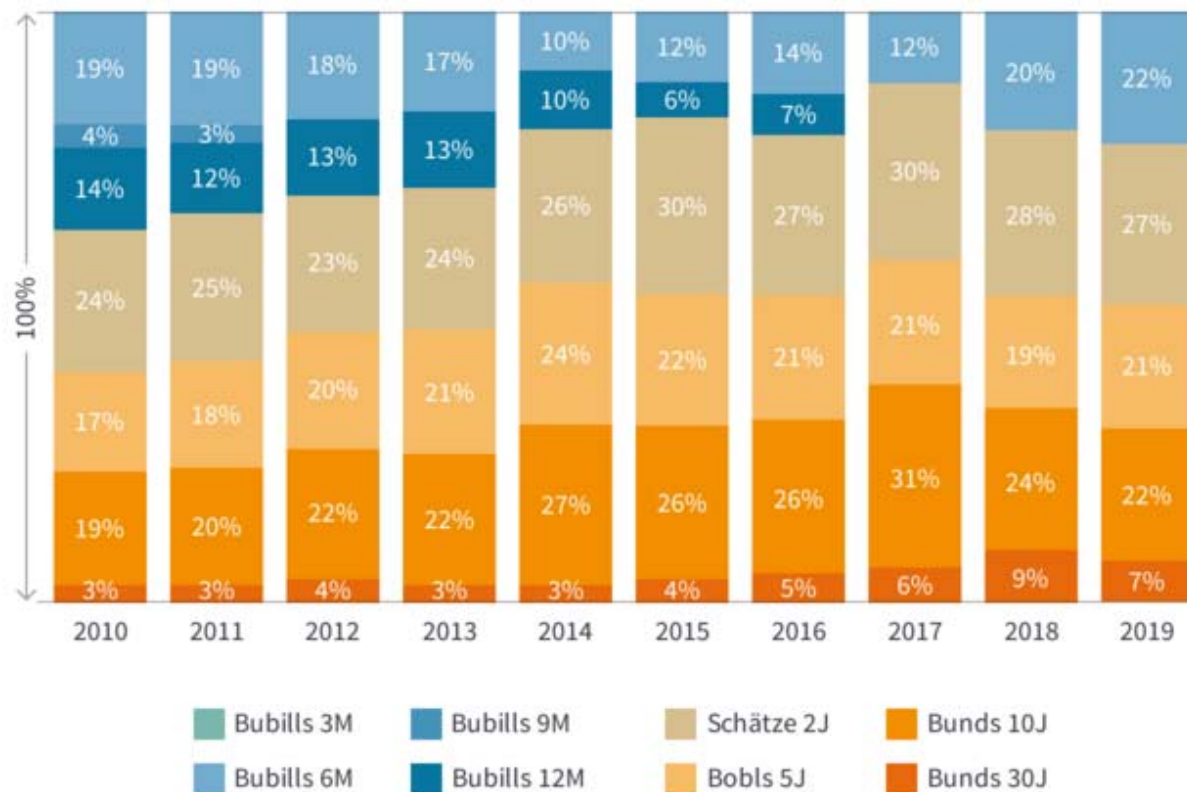
- Analysis and prediction of government funding needs

Maturity structure issued bonds

- Achieve a stable redemption profile across yield curve
- Keep rollover (refinancing), exchange rate and interest rate risk to a minimum

Primary market for government bonds Issuance of government bonds (cont.)

Issuance structure (%) of nominal interest-bearing German Government securities (<https://www.deutsche-finanzagentur.de/en/institutional-investors/primary-market/>)



Primary market for government bonds

Issuance of government bonds (cont.) – case study Germany

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Counterparty analysis

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Primary market for government bonds **Issuance of government bonds (cont.) – case study Germany**

| Bund Issues Auction Group:

- The Bund Issues Auction Group comprises 36 credit institutions. They have been approved by the Finance Agency as participants in the auctions of German Government securities.
- In principle, any credit or securities trading institution or investment firm domiciled in the EU, the EEA or Switzerland can become a member of the Bund Issues Auction Group. The membership requirements are structured very liberally.
- No market maker obligations for the group
- To remain a member of the Auction Group a financial institution must subscribe to at least 0.05% of the total issuance allotted at the auctions in a calendar year weighted according to maturity.

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Secondary market for government bonds

Importance of secondary markets

Reflection

| Why are secondary markets so important?

Secondary market for government bonds

Benefits of a well-functioning secondary market

Risk management

- Investors reduce their exposure at risk by diversifying their portfolio (of stocks, bonds, FX etc.)

Liquidity

- Secondary markets bridge the gap between the government's need for long-term finance and the market's demand for liquid instruments.

Information sharing

- New information will be reflected in the government bond prices at which they trade at the secondary market.

Secondary market for government bonds

Link between secondary and primary markets

Reflection

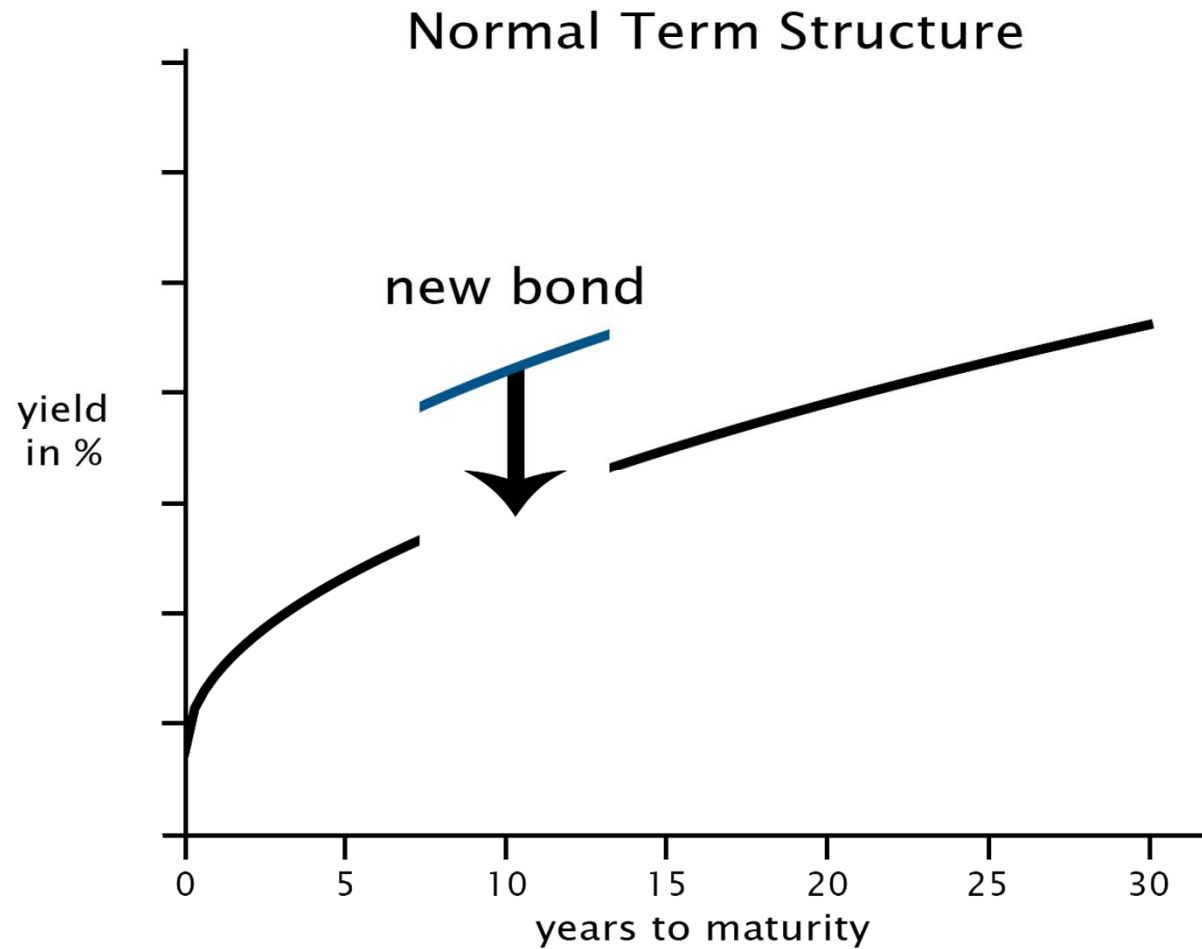
- | How do secondary and primary markets for government bonds affect each other?

- | Secondary markets promote the development of primary markets...
 - **Higher liquidity** on secondary markets makes it easier for investors to sell government bonds acquired on primary market
 - Secondary markets **determine prices** of government bonds issued on primary market

- | ... and vice versa
 - **Benchmark issues in key maturities** support growth of secondary markets as benchmark yield curve is used for **pricing** of government bonds on secondary market

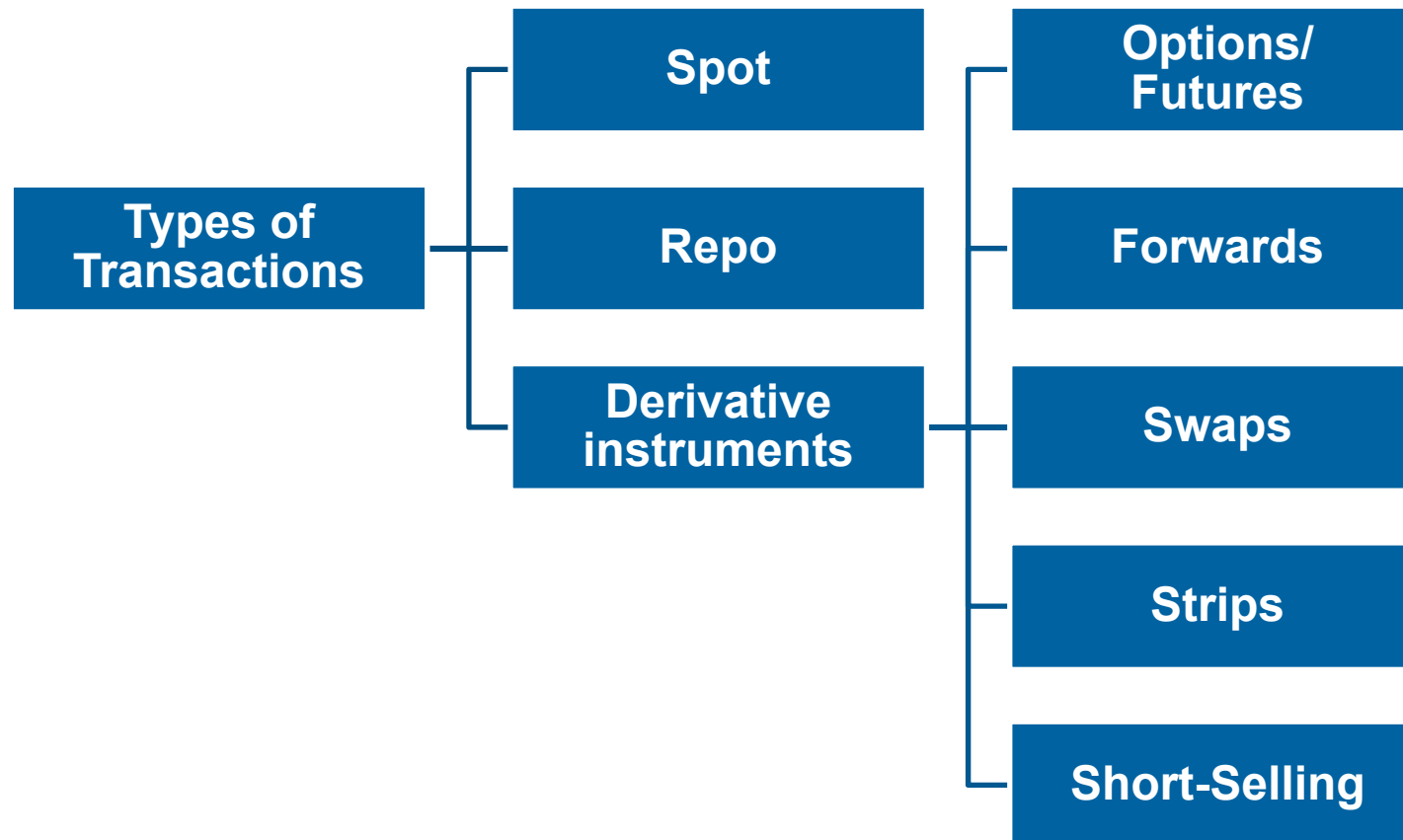
Secondary market for government bonds

Link between secondary and primary markets



Secondary market for government bonds Design of secondary market transactions

- There are various instruments which foster an efficient and liquid government bond market:



Secondary market for government bonds

Market structure: periodic vs. continuous markets

Periodic (or call-) markets

- Trading occurs at periodic intervals
- Between periodic intervals, buying and selling **interest** of market participants **builds up**. This raises the amount of traders who will take part in each trading session
- Consequently, **liquidity** and **market depth improve**; transaction costs decline (execution of trades with uniform price without bid/ask spread)

vs.

Continuous markets

- There are no interruptions of trading in continuous markets
- This allows market participants to apply more **sophisticated trading strategies**
- Prices **continuously** reflect changes in **information, transactions and market conditions**

| Which **kind of market** for government bonds exists in your home country?

Reflection

Secondary market for government bonds

Market structure: dealer vs. auction-agency markets

I There are two basic types of continuous markets:

Dealer markets

- Dealers act as **intermediaries** between market participants and the market
- Dealers offer bid and ask **quotes** to market participants. Therefore, dealer markets are also called „quote-driven“ markets
- Dealers **reduce execution risk** for traders by setting quotes in advance

vs.

Auction-agency markets

- In auction-agency markets, market participants submit (limit or market) **orders** in a **centralised auction and agency process**
- Crucial requirement for these markets is a continuous and even order flow to ensure sufficient liquidity and market depth
- There may be execution risk in case of „thin“ markets

Secondary market for government bonds

Market structure: electronic vs. floor-based trading

Electronic trading

- There is a screen-based network where dealer quotations are gathered
- Electronic trading improves **market efficiency**: operational efficiency increases, information is spread at a fast pace, trades may be executed automatically
- Result: deeper and more liquid market due to **larger number** of direct **market participants** (compared to floor-based trading)

vs.

Floor-based trading

- In floor-based markets, very short-term trading as reaction to changes in market conditions is limited to traders on the floor
- Thus, the **maximum size of market participants is limited**
- In floor-based OTC dealer markets, dealers profit from trading with less-informed traders (who are anonymous in electronic trading)

Secondary market for government bonds

Development of secondary markets

Reflection

| What can be done on the institutional side to further develop secondary markets?

Secondary market for government bonds

Development of secondary markets

I Market making by the **Finance Agency**:

- In each auction, the Finance Agency sets aside a share of issued securities as proprietary holding.
 - Size varies from one auction to the next.
 - After the auction these securities are gradually fed into the market by the Finance Agency

I Market making by the **Bundesbank**:

- Bundesbank buys and sells listed Federal securities for the Federal Government's account.
 - Achieve fair prices without discrimination between different market participants
 - Maintain liquid trading with low bid-ask spreads.
- Bundesbank assists in setting a „Bundesbank reference price“ on the Frankfurt Stock Exchange for every listed Federal security on every trading day.
 - Providing an important benchmark especially for retail business
 - Federal securities can be traded at robust prices in line with the market at every trading day.

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Determinants for local government bond markets

Reflection

- | What are determinants for a well-working local government bond market?
- | Who could help to overcome these challenges?

Determinants of government bond market development

| The development of (domestic) government bond markets depends crucially on various factors which can roughly be assigned to the following categories:

- 1. Macroeconomic factors**
- 2. Institutional factors**
- 3. Structural factors**

Determinants of government bond market development

Macroeconomic factors

What?	Who?
Economic size	
<ul style="list-style-type: none"> Average lending costs and risks decrease the larger the economy (economies of scale) Large economies attract more capital due to inclusion in global (bond) portfolio indices 	Government
Fiscal balance of government	
<ul style="list-style-type: none"> Countries with larger fiscal deficits tend to have larger government bond markets due to higher financing needs. However, over-indebtedness of governments may lead to spread increases and drying out of government bond markets (→ European sovereign debt crisis) 	Gouvernement
Inflation level	
<ul style="list-style-type: none"> With high inflation, investors might prefer foreign over local currency debt to hedge inflation risks Low inflation levels thus dampen the need for foreign currency borrowing by the government (→ FX risk) 	Central bank
Capital controls	
<ul style="list-style-type: none"> The absence of capital controls promotes domestic government bond market development as foreign investors are able to acquire domestic debt (→ foreign portfolio investments) 	Gouvernement

Determinants of government bond market development

Structural factors

What?	Who?
Derivative markets	
<ul style="list-style-type: none"> Allow for better management of currency and interest rate risks which foster liquidity on government bond markets. 	Government debt office
Fragmentation of bond markets	
<ul style="list-style-type: none"> Competing marketplaces may reduce liquidity on each single market place for government bonds. However, several market places (of sufficient size) may enhance competition and thus efficiency of markets. 	Government debt office
Competition among market intermediaries	
<ul style="list-style-type: none"> Higher level of competition among market participants improves efficiency and liquidity of government bond markets (due to lower transaction costs) 	Government debt office
Legal framework	
<ul style="list-style-type: none"> Rules of conduct may prevent fraud, front running and market manipulation 	Government

Determinants of government bond market development

Institutional factors

What?	Who?
Quality of institutions	
<ul style="list-style-type: none"> An effective financial and banking supervision lays the foundation for a healthy development of government bond markets Capital adequacy rules aim to improve solvency of market intermediaries 	Government
Transparency	
<ul style="list-style-type: none"> Pre- and post-trade transparency play a pivotal role for trust of market participants in markets and integrity of dealers, resulting in higher market liquidity and a reduction of market manipulation 	Government debt office
Second market liquidity	
<ul style="list-style-type: none"> Central bank may support secondary market liquidity by acting as a market maker for dealers who support secondary market trading, i.e. the central bank stands ready to buy and sell securities from these dealers 	Central bank
Investor base	
<ul style="list-style-type: none"> A narrow investor base may lead to risk concentration in bond markets („herding“ behavior due to limited amount of different trading strategies used by market participants) Heterogeneous market participants with different risk preferences, holding periods and trading strategies foster liquid markets (due to more active trading) 	Government debt office

Agenda

- I. Introduction to the government bond markets
- II. The primary market for government bonds
- III. The secondary market for government bonds
- IV. Challenges for local government bond markets
- V. Summary

Summary

- I **Government bond markets** are the **world's largest bond markets** and they are widely used to **finance governments**.
- I **Reliable debt management** of government bonds starts with **an effective issuance strategy**. This includes: a government debt office, an issuance strategy, a suitable maturity structure and a counterparty analysis.
- I **Well-functioning secondary markets** are beneficial for risk management, liquidity and information sharing. The **secondary market** affects the **development of primary markets** (and vice versa).
- I **Structural, macroeconomic and institutional factors** affect the development of domestic government bond markets. **Competent authorities** could help to overcome some of the existing impediments in local government bond markets.



Characteristics of government bond markets: primary vs. secondary markets
Charlotte Kimmel

References

I Basic reading

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- Deutsche Bundesbank Monthly Report (2018): The market for Federal securities: holder structure and the main drivers of yield movements, July 2018

I Further reading

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