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			MCeX

CIRCULAR October 10, 2012

### **REQUEST FOR COMMENTS**

### **MODIFICATION TO THE DELIVERY STANDARDS**

## 30-YEAR GOVERNMENT OF CANADA BOND FUTURES CONTRACT (LGB)

# AMENDMENT TO ARTICLE 15613 OF RULE FIFTEEN OF BOURSE DE MONTRÉAL INC.

The Rules and Policies Committee of Bourse de Montréal Inc. (the "Bourse") has approved the modifications to the delivery standards of the 30-Year Government of Canada Bond Futures Contract (LGB) and the amendment to Article 15613 of Rule Fifteen of the Bourse in order to increase the efficiency and cost-effectiveness of the LGB for both hedgers and speculators.

Comments on the proposed amendments must be submitted within 30 days following the date of publication of this notice, at the latest on **November 12, 2012**. Please submit your comments to:

M<sup>e</sup> Pauline Ascoli
Vice-President, Legal Affairs, Derivatives
Bourse de Montréal Inc.
Tour de la Bourse
P.O. Box 61, 800 Victoria Square
Montréal, Québec H4Z 1A9
E-mail: legal@m-x.ca

A copy of these comments shall also be forwarded to the *Autorité des marchés financiers* (the "**Autorité**") to:

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800 Victoria Square, 22nd Floor
P.O. Box 246, Tour de la Bourse
Montréal (Québec) H4Z 1G3
E-mail: consultation-en-cours@lautorite.gc.ca

Circular no.:133-2012

# **Appendices**

For your information, you will find in appendices an analysis of the proposed amendments as well as amended Rule Fifteen of the Bourse. The implementation date of the proposed amendments will be determined by the Bourse, in accordance with the self-certification process as determined by the *Derivatives Act* (R.S.Q., chapter I-14.01).

## **Process for Changes to the Rules**

The Bourse is authorized to carry on business as an exchange and is recognized as a self-regulatory organization (SRO) by the Autorité. The Board of Directors of the Bourse has delegated to the Rules and Policies Committee of the Bourse its powers to approve and amend the Rules and Procedures. The Rules of the Bourse are submitted to the Autorité in accordance to the self-certification process as determined by the *Derivatives Act* (R.S.Q., chapter I-14.01).

Circular no.: 133-2012



#### MODIFICATION TO THE DELIVERY STANDARDS

## 30-YEAR GOVERNMENT OF CANADA BOND FUTURES CONTRACT (LGB)

# AMENDMENT TO ARTICLE 15613 OF RULE FIFTEEN OF BOURSE DE MONTRÉAL INC.

## I. INTRODUCTION

Bourse de Montréal Inc. (the "Bourse") proposes to modify the delivery standards for the 30-Year Government of Canada Bond Futures contract ("LGB") in order to change the basket of deliverable bonds from a maturity range of 21-33 years to a maturity of not less than 25 years. This proposed change is intended to increase the efficiency of the LGB.

A consultation with selected approved participants and end-user clients has indicated that the duration of the cheapest-to-deliver ("CTD") bond in the LGB basket of deliverables is too short relative to the most recently auctioned ("on-the-run") 30-Year Government of Canada ("GoC") bond. A longer duration CTD bond will be both more cost effective for clients and more liquid, and will more closely align the LGB with other 30-Year Government Bond Futures and Ultra Government Bond Futures listed on international exchanges.

## II. PROPOSED AMENDMENT

It is proposed to amend article 15613 of Rule Fifteen of the Bourse in order to allow the Bourse to modify the delivery standards of the LGB futures contract. The amendments to Rule 15613 with respect to the LGB futures contract are as follows:

- 1. Eliminate the current remaining maturity range of 21-33 years in order for a bond to be deemed eligible for delivery;
- 2. Replace the range described above with a remaining maturity of not less than 25 years in order for a bond to be deemed eligible for delivery.

The changes described above will offer participants a cleaner hedge, facilitate the execution of cash-and-carry trades, and make the LGB more efficient. In addition, the modified delivery standards will offer more efficient exposure with reduced tracking error to the CTD.

The Bourse intends to make the changes described above effective starting with the June 2013 LGB futures contract month, and for all other subsequent contract months. There is currently no volume or open interest in the June 2013 LGB futures contract.

## III. DEFINITIONS

**On-The-Run Bond:** the most recently issued, and hence most liquid, periodically issued bond. On-the-run bonds are generally more liquid and trade at a premium to other bonds.

**Off-The-Run Bond:** a bond issued prior to the most recently issued bond of a particular maturity, and as such, older than an on-the-run bond. Off-the-run bonds trade at a discount to on-the-run bonds.

**Duration:** percentage change in the price of a bond to a given change in the bond's yield. Duration is expressed as a number of years. The higher the duration number, the greater the interest-rate risk or reward for bond prices.

Cheapest to Deliver (CTD): the bond that maximizes the net return to buying the cash bond, carrying the bond to delivery and delivering the bond into the bond futures contract.<sup>1</sup>

### IV. RATIONALE

Following a consultation with selected approved participants and end-user clients, the Bourse has determined that the delivery standards of the LGB futures contract should be amended in order to increase its utility as a hedging and trading instrument. The feedback has been that the current delivery standards are too broad, and that they result in overly short durations which impede the liquidity of the LGB by increasing the tracking error to 30-Year Government of Canada bonds. This modification would result in the removal from the basket of deliverables of older off-the-run 30-Year Government of Canada bonds whose durations are too short relative to the duration of the most recently auctioned 30-Year Government of Canada bond.

The key factors identified during this consultation were:

<sup>&</sup>lt;sup>1</sup> Burghardt, Galen et al, *The Treasury Bond Basis* (Third Edition), New York, MacGraw-Hill, 2005.

# a) The duration of the cheapest-to-deliver bond is currently too short in comparison to the duration of the most recently auctioned 30-Year Government of Canada bond

At the present time, the duration of the cheapest-to-deliver bond for the LGB is too short relative to the duration of the most recently auctioned 30-Year GoC bond (on-the-run bond).

The replacement of the current remaining maturity range of 21-33 years with a simplified minimum remaining time to maturity of not less than 25 years will result in older off-the-run GoC bonds dropping out of the basket sooner. This would result in an increase in the duration of the cheapest-to-deliver bond of the LGB, making the LGB more cost effective and more efficient, while reducing the tracking error to the on-the-run 30-Year GoC bond. Specifically, the duration of the cheapest-to-deliver bond will increase from 24.8 to 26.0 years.

For illustrative purposes, the following table shows the impact of duration on the cheapest-to-deliver bond for the LGB contract, by comparing the actual delivery standards to the proposed delivery standards.

Table I: LGB Basket of deliverables – Duration Impact Analysis (Actual versus Proposed Delivery Standards)

Bas	ket	Description of eligible bonds	DV01	Amount Issued
		CAN 5% June 2037	24.80	13 999 089 000
_	peso	CAN 4% June 2041	26.00	15 800 000 000
Actual	Propo	CAN 3½% Dec 2045	27.78	6 100 000 000

Source: Montréal Exchange Research

# b) Under the current standards, the cheapest-to-deliver bond is always a less liquid off-the-run 30-Year GoC bond

Current yields of 30-Year GoC bonds (2.248% as at July 18, 2012) are considerably below the LGB's notional coupon of 6%. Shorter duration bonds are therefore the cheapest-to-deliver for the LGB contract. Consequently, the cheapest-to-deliver bond is always an older off-the-run 30-Year GoC bond that is not actively traded in the cash market – thus reducing the efficiency of the LGB contract.

Specifically, the LGB basket of deliverables includes GoC bonds originally issued at 30-Year Government of Canada auctions that have a remaining term to maturity of between 21 and 33 years. Despite the large amount outstanding, these older 30-Year GoC bonds that are currently part of the LGB basket of deliverables are not actively traded in the cash market. Many of them have been accumulated by institutional investors who intend to hold them until maturity as part of an investment strategy, rather than for trading purposes. Consequently, a large part of this supply is not readily available to the market and this makes it difficult for market makers to fulfill their market making obligations, and for participants to obtain these bonds for the purpose of executing basis trades, or cash and carry trades, using the LGB.

In current market conditions, the higher the coupon, the greater the extent to which the CTD becomes the bond with the shortest duration. With shorter duration, the futures contract distances itself from the bonds it is intended to track.

For illustrative purposes, the following table illustrates the actual LGB basket of deliverables compared to the proposed basket of deliverable bonds under the revised delivery standards.

Table II: LGB Basket of deliverables – Actual versus Proposed Delivery Standards

CURRENT 30-year LGB BASKET: (21 yrs to 33 yrs)						
Government of Canada Bonds 30-Year Goo		oC Futures C	ontract Mont	h		
Coupon	Maturity	Issue Type	sept-12	dec-12	march-13	june-13
5.00%	june-2037	30-year	14,00	14,00	14,00	14,00
4,00%	june-2041	30-year	15,80	15,80	15,80	15,80
3,50%	june-2045	30-year	7,50	8,90	10,40	11,80
Total Outstanding (C\$ billion)		37,30	38,70	40,20	41,60	

Government of Canada Bonds		30-Year GoC Futures Contract Month				
Coupon	Maturity	Issue Type	sept-12	dec-12	march-13	june-13
4,00%	june-2041	30-year	15,80	15,80	15,80	15,80
3,50%	june-2045	30-year	7,50	8,90	10,40	11,80
Total Outst	anding (C\$ billi	ion)	23,30	24,70	26,20	27,60

denotes cheapest-to-deliver bond issue projected

Source: Montréal Exchange Research

c) The duration of the LGB will be more in-line with the duration of comparable 30-Year Government Bond Futures contracts listed on international exchanges

The changes to the delivery terms of the LGB will result in a duration that is more in line with other Ultra Government Bond Futures listed on international exchanges.

Specifically, the duration of the cheapest-to-deliver bond (adjusted for the conversion factor of the LGB bond futures contract) will increase from 24.8 to 26.0.

**Table III: International Benchmarking** 

Specifications	МХ	CME Ultra	Euro-Buxl Futures
Notional Coupon	6%	6%	4%
Remaining maturity of		Not less than	
eligible bond at expiration	21 to 33 years	25 years	24-35 years
No. of eligible bonds for			
delivery	3	15	4
Current CTD bond			
coupon / maturity	5,75% / 2033	4,5% / 2038	4% / 2037
<b>Current Futures DV01</b>			
(front month contract)	21,67	26,13	22,03
ADV 2010	0	30 488	5 314
ADV 2011	0	61 357	7 028
ADV 2012	0	67 875	7 607

**Source: Montréal Exchange Research** 

## V. SUMMARY OF THE PROPOSED AMENDMENT TO THE RULES OF THE BOURSE

## Article 15613 of Rule Fifteen

The Bourse proposes to amend article 15613 of Rule Fifteen of the Bourse to modify the delivery standards of the LGB. Specifically, the Bourse proposes eliminating the current remaining maturity range of 21-33 years and replacing it with a simplified minimum remaining time to maturity of not less than 25 years.

## VI. OBJECTIVE OF THE PROPOSED AMENDMENT TO THE RULES OF THE BOURSE

The objective of the proposed amendment to article 15613 of Rule Fifteen of the Bourse is to increase the duration of the LGB by changing the time window for Government of Canada (GoC) bonds deemed eligible in the basket of deliverables of the LGB contract from 21-33 years to not less than 25 years. The proposed amendment will increase the utility of the LGB for hedgers and speculators.

## VII. PUBLIC INTEREST

The specifications and amendments to the Rules of the Bourse are proposed in order to increase the efficiency and cost-effectiveness of the LGB for both hedgers and speculators. A contract that is better tailored to participants' requirements will be more liquid and will attract more activity to transparent and centrally cleared futures markets.

## VIII. PROCESS

The proposed amendment to Rule Fifteen, including this Analysis, are to be approved by the Bourse's Rules and Policies Committee and submitted to the Autorité des marchés financiers in accordance with the self-certification process and to the Ontario Securities Commission for information.

## IX. ATTACHED DOCUMENTS

- Rule Fifteen of Bourse de Montreal Inc.: amendment to Article 15613
- Revised Contract Specifications for the LGB

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# RULE FIFTEEN FUTURES CONTRACTS SPECIFICATIONS

### GOVERNMENT OF CANADA BOND FUTURES

# Section 15601 - 15700 Specific Trading Provisions

## 15613 Delivery Standards

(08.09.89, 20.11.89, 05.03.90, 01.07.92, 01.10.92, 12.07.94, 19.01.95, 05.08.97, 06.11.97, 22.12.99, 03.05.04, 17.11.04, 24.07.06, 16.11.07, 01.09.10, 05.11.10, 00.00.00)

- a) For the 10-year Government of Canada Bond Futures contract shall be deliverable only those Government of Canada bond issues which:
  - i) have a remaining maturity of between 8 and 10½ years, as of the first day of the delivery month (for the purpose of determining the maturity of a bond eligible for delivery and for settlement, the time to maturity of a given issue shall be calculated in complete periods of three months, by rounding down to the nearest entire three-month period, e.g. 10 years and seven months shall be considered 10½ years from the first day of the delivery month);
  - ii) have an outstanding amount of \$3.5 billion nominal value (net of all potential purchases by the Government of Canada up until the end of the period during which the bond issue is deliverable);
  - iii) are originally issued at 10-year auctions (a bond not issued at a 10-year auction which would otherwise meet the standards of this rule, is also deemed to be deliverable, if during the last 12-month period preceding the first Delivery Notice Day of the contract month, its reopenings total a minimum nominal amount of \$3.5 billion);
  - iv) are issued and delivered on or before the 15th day preceding the first Delivery Notice Day corresponding to the delivery month of the contract;
  - v) have a face value at maturity in multiples of CAN \$100,000; and
  - vi) have a coupon of 6%. However, at the seller's choice, a Government of Canada Bond having a coupon other than 6% can be substituted. The amount of premium or discount for each deliverable issue shall be calculated on the basis of a yield equivalent to a Government of Canada Bond bearing a 6% coupon and selling at par.
- b) For the 5-year Government of Canada Bond Futures contract, shall be deliverable only those Government of Canada bond issues which:
  - i) have a remaining maturity of between 3 years 6 months and 5 years 3 months, as of the first day of the delivery month (for the purpose of determining the maturity of a bond eligible for delivery and for settlement, the time to maturity of a given issue shall be calculated in complete one month increments, by rounding down to the nearest entire one month period. e.g. 4 years 5 months and 14 days shall be considered 4 years and 5 months from the first day of the delivery month);

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ii) have an outstanding amount of \$3.5 billion nominal value (net of all potential purchases by the Government of Canada up until the end of the period during which the bond issue is deliverable):

- iii) are originally issued at 5-year Government of Canada bond auctions (an issue which has an original maturity of more than 5 years and 9 months and which would otherwise meet the standards of this rule, is also deemed to be deliverable, if during the last 12-month period preceding the first Delivery Notice Day of the contract month, its reopenings total a minimum nominal amount of \$3.5 billion);
- iv) are issued and delivered on or before the 15th day preceding the first Delivery Notice Day corresponding to the delivery month of the contract;
- v) have a face value at maturity in multiples of CAN \$100,000; and
- vi) have a coupon of 6%. However, at the seller's choice, a Government of Canada Bond having a coupon other than 6% can be substituted. The amount of premium or discount for each deliverable issue shall be calculated on the basis of a yield equivalent to a Government of Canada Bond bearing a 6% coupon and selling at par.
- c) For the 2-year Government of Canada Bond Futures contract expiring before December 2010, shall be deliverable only those Government of Canada bond issues which:
  - i) have a remaining maturity of between 1 year 6 months and 2 years 6 months, as of the first day of the delivery month (for the purpose of determining the maturity of a bond eligible for delivery and for settlement, the time to maturity of a given issue shall be calculated in complete one month increments, by rounding down to the nearest entire one month period. e.g. 2 years 1 month and 14 days shall be considered 2 years and 1 month from the first day of the delivery month);
  - ii) have an outstanding amount of \$2.4 billion nominal value (net of all potential purchases by the Government of Canada up until the end of the period during which the bond issue is deliverable):
  - iii) are originally issued at 2-year, 5-year or 10-year Government of Canada bond auctions (a bond which has not been originally issued at a 2-year, 5-year or 10-year Government of Canada bond auction and which would otherwise meet the standards of this rule, is also deemed to be deliverable, if during the last 12-month period preceding the first Delivery Notice Day of the contract month, its reopenings total a minimum nominal amount of \$2.4 billion);
  - iv) are issued and delivered on or before the 15th day preceding the first Delivery Notice Day corresponding to the delivery month of the contract;
  - v) have a face value at maturity in multiples of CAN \$200,000; and
  - vi) have a coupon of 4%. However, at the seller's choice, a Government of Canada Bond having a coupon other than 4% can be substituted. The amount of premium or discount for each deliverable issue shall be calculated on the basis of a yield equivalent to a Government of Canada Bond bearing a 4% coupon and selling at par.

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d) For the December 2010 2-year Government of Canada Bond Futures contract and for subsequent contract months, shall be deliverable only those Government of Canada bond issues which:

- i) have a remaining maturity of between 1 year 6 months and 2 years 6 months, as of the first day of the delivery month (for the purpose of determining the maturity of a bond eligible for delivery and for settlement, the time to maturity of a given issue shall be calculated in complete one month increments, by rounding down to the nearest entire one month period. e.g. 2 years 1 month and 14 days shall be considered 2 years and 1 month from the first day of the delivery month);
- ii) have an outstanding amount of \$2.4 billion nominal value (net of all potential purchases by the Government of Canada up until the end of the period during which the bond issue is deliverable);
- iii) are originally issued at 2-year Government of Canada bond auctions (a bond which has not been originally issued at a 2-year Government of Canada bond auction and which would otherwise meet the standards of this rule, is also deemed to be deliverable, if during the last 12-month period preceding the first Delivery Notice Day of the contract month, its reopenings total a minimum nominal amount of \$2.4 billion);
- iv) are issued and delivered on or before the 15th day preceding the first Delivery Notice Day corresponding to the delivery month of the contract;
- v) have a face value at maturity in multiples of CAN \$200,000; and
- vi) have a coupon of 6%. However, at the seller's choice, a Government of Canada Bond having a coupon other than 6% can be substituted. The amount of premium or discount for each deliverable issue shall be calculated on the basis of a yield equivalent to a Government of Canada Bond bearing a 6% coupon and selling at par.
- e) For the 30-year Government of Canada Bond Futures contracts expiring before June 2013, shall be deliverable only those Government of Canada Bond issues which:
  - have a remaining maturity of between 21 and 33 years, as of the first day of the delivery month (for the purpose of determining the maturity of a bond eligible for delivery and for settlement, the time to maturity of a given issue shall be calculated in complete periods of three months, by rounding down to the nearest entire three-month period, e.g. 30 years and seven months shall be considered 30½ years from the first day of the delivery month);
  - ii) have an outstanding amount of \$3.5 billion nominal value (net of all potential purchases by the Government of Canada up until the end of the period during which the bond issue is deliverable);
  - iii) are originally issued at 30-year auctions (a bond not issued at a 30-year auction which would otherwise meet the standards of this rule, is also deemed to be deliverable, if during the last 12-month period preceding the first Delivery Notice Day of the contract month, its reopenings total a minimum nominal amount of \$3.5 billion);
  - iv) are issued and delivered on or before the 15th day preceding the first delivery notice day corresponding to the delivery month of the contract;
  - v) have a face value at maturity in multiples of CAN \$100,000; and

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vi) have a coupon of 6%. However, at the seller's choice, a Government of Canada Bond having a coupon other than 6% can be substituted. The amount of premium or discount for each deliverable issue shall be calculated on the basis of a yield equivalent to a Government of Canada Bond bearing a 6% coupon and selling at par.

- f) For the June 2013 30-year Government of Canada Bond Futures contracts, and for subsequent contract months, shall be deliverable only those Government of Canada Bond issues which:
  - i) have a remaining maturity of not less than 25 years, as of the first day of the delivery month (for the purpose of determining the maturity of a bond eligible for delivery and for settlement, the time to maturity of a given issue shall be calculated in complete periods of three months, by rounding down to the nearest entire three-month period, e.g. 30 years and seven months shall be considered 30½ years from the first day of the delivery month);
  - ii) have an outstanding amount of \$3.5 billion nominal value (net of all potential purchases by the Government of Canada up until the end of the period during which the bond issue is deliverable);
  - iii) are originally issued at 30-year auctions (a bond not issued at a 30-year auction which would otherwise meet the standards of this rule, is also deemed to be deliverable, if during the last 12-month period preceding the first Delivery Notice Day of the contract month, its reopenings total a minimum nominal amount of \$3.5 billion);
  - iv) are issued and delivered on or before the 15th day preceding the first delivery notice day corresponding to the delivery month of the contract;
  - v) have a face value at maturity in multiples of CAN \$100,000; and
  - vi) have a coupon of 6%. However, at the seller's choice, a Government of Canada Bond having a coupon other than 6% can be substituted. The amount of premium or discount for each deliverable issue shall be calculated on the basis of a yield equivalent to a Government of Canada Bond bearing a 6% coupon and selling at par.
- fgg)The price of a deliverable Government of Canada Bond shall be determined according to the conversion factors tables published by the Bourse.
  - The conversion factor of a deliverable issue is the actualized value of the deliverable issue to the notional yield of the futures contract considered on the first day of the delivery month, minus the interest accrued until delivery day.
- ghh)The amount to be paid at delivery is equal to \$1,000 (\$2,000 for the 2-year Government of Canada Bond Futures contract) multiplied by the conversion factor of the deliverable issue and multiplied by the settlement price of the futures contract being delivered, plus accrued interests to the delivery day. Accrued interest is charged to the approved participant taking delivery.
- hi) All Government of Canada Bonds being delivered in respect of a futures contract must be of the same issue.

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ij) Before a contract is listed for trading, the Bourse shall have the right to exclude any deliverable Government of Canada bond issue, even if it meets all the standards specified in this Rule.



**Trading Unit** 

**Contract Months** 



March, June, September and December.

C\$100,000 nominal value Government of Canada Bond with 6% notional

LGB – 30-Year Government of Canada Bond I	Lutures
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coupon

Price Quotation	Quoted on a 100 points basis where 1 point equals C\$1,000.
Last Trading Day	Trading ceases at 1:00 p.m. (Montréal time) on the seventh business day preceding the last business day of the contract month.
Contract Type	Physical delivery of eligible Government of Canada Bonds.
Delivery Notices	Delivery notices must be submitted before 5:30 p.m. or before such time set by the clearing corporation on any business day, between the third business day preceding the first business day of the delivery month and the third business day preceding the last business day of the delivery month inclusively.
Delivery Date	Delivery must be made on the third business day following the submission of the delivery notice by the member holding a seller's position or on any other day as determined by the clearing corporation. Delivery shall be completed no later than the last business day of the delivery month.
Minimum Price Fluctuation	0.01 = C\$10 per contract.
Reporting Level	250 contracts.
Position Limits	Information on position limits can be obtained from the Exchange as they are subject to periodic changes.
Minimum Margin Requirements	Information on minimum margin requirements can be obtained from the Exchange as they are subject to periodic changes.
Delivery Standards	Government of Canada Bonds which:  i) have a remaining time to maturity of not less than 25 years between 21 years and 33 years, as of the first day of the delivery month, calculated by rounding down to the nearest entire three-month period;  ii) have an outstanding amount of at least C\$3.5 billion nominal value;  iii) are originally issued at thirty-year Government of Canada Bond auctions;  iv) are issued and delivered on or before the 15th day preceding the first delivery notice day of the contract month.
Daily Price Limit	None.
Trading Hours (Montreal time)	Early session: 6:00 a.m. to 8:05 a.m. Regular session: 8:20 a.m. to 3:00 p.m. Extended session*: 3:06 p.m. to 4:00 p.m.  * There is no extended session on the last trading day of the expiring contract month.
	Note: During early closing days, the regular session closes at 1:00 p.m., time at which the daily settlement price is established. In those circumstances, the extended session is from 1:06 p.m. to 1:30 p.m.
Clearing Corporation	Canadian Derivatives Clearing Corporation (CDCC).
Ticker Symbol	LGB

16.11.07, 20.03.09, 01.10.10, 00.00.00