Tasks for 'Bond Risk Premia in Emerging Markets: Dynamics, Comovement and Drivers '

M. Pavel Solís M.

Contents

1 Data: BLP

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- ☐ After comparing datasets downloaded from BLP on Mar 2018 and Feb 2019: BLP updated values (slightly) in variables starting on: 9/30/2009 (USSW), 5/4/11 (USBC, USBA).
- ☐ EUBS1-EUBS20 for PLN deleted since already downloaded for HUF.
- ☐ Check PZSW*V3 Curncy against PZSW* Curncy for PLN because the former have a shorter history (became active in 2013 vs 2000). Why the substitution? Was it because PZSW* Curncy were discontinued?
- ☐ Download PZSW15 and Curncy PZSW20 to complement the history 6/12/2000-1/30/2013 for Curncy PZSW15V3 Curncy and PZSW20V3 Curncy, respectively.

- ☐ Check MRBS* starting in 4/20/2016 because in the data downloaded in 2019 they were flat most of the time after that date.
- ☐ Check the following series b/c they remain mostly flat during those periods: SABS15 Curncy b/w 4/15/2014-1/27/2016, SABS20 Curncy b/w 4/15/2014-8/28/2015, SABS25 Curncy b/w 1/3/2000-9/5/2011, SABS30 Curncy b/w 1/3/2000-5/10/2010.
- ☐ Check constant yield curves.
  - ☐ NOK: C26610Y Index is flat after Nov 2012, C26610Y is flat twice during the sample.
  - ☐ PHP: Since 29-Oct-2018 BFV data does not vary. In the dataset, the BFV series includes IYC (converted into CE par) yields since 1-Oct-2018. Update BFV series w/ BLP data when access to it is available.

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2 Datasets: Daily

- ☐ For BRL RHO 2Y deviates from DIS starting in 2016. RHO 7Y is not available relative to DIS.
- ☐ For GBP RHO 7Y increases a lot relative to DIS in 2010.
- ☐ For PEN RHO 7Y big decrease in 2018.
- ☐ For PHP RHO 7Y big spike in 2010.
- ☐ For THB, AUD, CHF, DKK, EUR, NZD, SEK RHO 7Y and CAD 3Y, 7Y big declines.
- ☐ Review RHO:
  - ☐ COP 1Y flat b/w 2012-2015.
  - ☐ HUF 3M.
  - ☐ IDR 1Y.
  - ☐ ILS 3M, 7Y.
  - ☐ MYR 2Y.
- ☑ For NOK RHO 2Y, 3Y, 7Y have a hole in 2008-2009. Reason: cutoff date of convention to compute IRS.

3 Data: Codes

- ☐ Consider shorter histories of some series within a country.

- ☐ For PLN consider removing PZBSEC6 Curncy, PZBSEC8 Curncy, PZBSEC9 Curncy (and PZSW6V3 Curncy, PZSW8V3 Curncy, PZSW9V3 Curncy) because they start in 2011 and that seems to eliminate the data before 2011 for PLN even if it is available for all the other tenors; plus it may not be needed, it depends on the other variables in the formula having the 6Y tenor available. Or modify the code so that those tenors are considered once they become available (and discarded before 2011).
- ☐ Availability of data for PZBSEC6 Curncy and PZSW15 and Curncy might be related to the history of the synthetic curves for PLN.
- ☐ Check that the shorter history of PZSW15V3 Curncy and PZSW20V3 Curncy (starts in 2013) does not affect the history of the synthetic curves for PLN.
- ☐ Check that MRBS10 and lower start around 2005, while MRBS15 around 2007 and MRBS20 in mid-2009.
- ☐ RRUSSW10 and lower start in 2006, while RRUSSW15 and RRUSSW20 in 2009.
- ☐ TBSWNI10 and lower start in 2007, TBSWNI15 and TBSWNI20 in 2009.

- ☑ In compute_fp_long.m address cases for HUF, PLN and NOK. If BS (HUF, PLN) and IRS (NOK) series are NaN, use zeros.
- ☑ There are countries with BFV and IYC curves, transform BFV into ZC yields and compare the curves. BFV has CE par yields, IYC has CE ZC yields. Need to be converted into ZC continuously compounding.
- ☒ For countries for which DIS have a longer history than me, check whether it is b/c we use different LC YC (BFV vs. IYC) and one has a longer history. For HUF and PLN is b/c BS series start in 2007 in my sample.
- ☑ Update codes since EUBS1-EUBS20 for HUF and PLN were deleted because they were already downloaded for EUR (plus EUBS25 and EUBS30 are now included).

4 Data: CRSP

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- ☑ Download "Riskfree Series (1-month and 3-month)", "Riskfree Series (4, 13, and 26-week)", Fama Term Structure data for 3- 6- 9- months. Compare them.
- ☑ Update read_usyc.m to read CRSP data for maturities < 1Y.
- ☑ Compare results in LC spread and forward premium for 3M against DIS.

5 Data: Files

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- ☑ In the dataset, the BFV series for PHP includes IYC (converted into CE par) yields since 1-Oct-2018.

- ☑ In AE_EM_Curves_Tickers.xlsx change cutoff date for NOK. Official date 9/2/2008 only applies to 1Y, 5Y and 10Y tenors. New date 5/20/2009 applies to all tenors.
- ☑ It seems that EUBS1-EUBS20 for HUF can be deleted from AE_EM_Curves_BDH.xlsx (codes referencing BS_EUR so far —fltr4tickers and compute_fp_long— updated). Need consistency because the Type column in sheet Identifiers is different for HUF (BS_EUR) than for EUR (BS).
  - ☑ Compare time series of EUBS1-EUBS20 for HUF and for EUR to make sure they are the same (i.e. downloaded correctly).
  - ☑ Highlight in red columns DM-DV in original_Zero_Swap_Curves_Bloomberg.xlsx to indicate that those tickers were removed in current dataset.
  - ☑ Comment after comparison: small differences between 2018 and 2019. No change was made to 2019 series. Same data when comparing EUBS1-EUBS20 for HUF and EUR.
  - ☑ Delete BS_EUR in Type column in README sheet in AE_EM_Curves_Tickers.xlsx. Update Type columns in HUF and PLN sheets for EUBS1-EUBS20 from BS_EUR to BS.
  - ☑ Update AE_EM_Curves_BDH.xlsx.
- ☑ Change name of files to US_Yield_Curve_Data.xlsx, IMF_Country_Codes.xlsx, ISO_Currency_Codes.xlsx, BIS_CB_Policy_rates.xlsx, CIP_Data.xlsx and CIP_data.dta (original_ removed).
- ☑ Update CE_Forecasts.xlsx: change order of groups (APCF, LACF, EECF), correct dates for EECF.
- ☑ Delete EUBS1-EUBS20 for PLN in both sheets (All, Tickers) of AE_EM_Curves_BDH.xlsx.

6 Codes

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- ☐ Updates to Kfs: remove commented nargin for mu_x and mu_y.
- ☐ Move loadings4ylds to the temp folder.
- ☐ Check if the formula for the CCS of HUF needs to be updated in compute_fp_long.m as indicated in the AE_EM_Curves_Tickers.xlsx file (check the sign —plus or minus— for TBS6v3).
- ☑ Update loadings4ylds: help, round maturities so that input as [0.25 1:5:10]
- ☑ Consider to include files as subfunctions.
  - ☑ findNaN.m into remove_NaNcols.m.

- ☒ matchtnrs.m into extract_vars.m. extract_vars.m is already long.
- ☒ fltr4tickers.m into extract_vars.m. Filter also used by compare_ycs.m and zc_yields.m.
- ☒ y_NS into y_NSS.m. They are used separately by zc_yields.m.

☑ Add read_cip.m and iso2names.m in m-files called in read_data.m.

☑ Move old codes to Aux-¿Temp folder.

☒ Check what the mat-files (ccs_data.mat, ccs_info.mat) contain to decide whether to move them to the Aux folder. Obtained with old codes.

☑ Filter SPT in THdt to see if the currency tickers are identified. Yes, actually curncs is now obtained directly from the headers table.

7 Facts

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☐ No EM was at the ZLB over the period.

☐ Countries w/ LCNOM YCs of less than 10Y maturities:

- ☐ IDR b/w 25-Feb-2003 and 15-Apr-2003 max tenor was 8Y.
- ☐ KOR b/w 3-Jan-2000 and 30-Oct-2000 max tenor was 8Y.
- ☐ RUB b/w 04-Apr-2006 and 19-Jun-2007 max tenor was 7Y.
- ☐ TRY b/w 17-Feb-2005 and 22-Feb-2005 max tenor was 3Y.
- ☐ TRY b/w 22-Feb-2005 and 28-Jun-2010 max tenor was 5Y.

☐ Advantage of LCSYNT (longer history) instead of LCNOM for: BRL, IDR, PHP, RUB, TRY. Disadvantage for COP, HUF, ILS, MXN, MYR, PEN, PLN, THB, ZAR.

☐ Since 2016, CHF and DKK negative YC up to 10Y and 7Y, respectively. Before GFC, close to ZLB.

8 Analysis

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☐ Estimate ATSM for AEs and EMs. Save TP w/ JSZ and w/ surveys for LCNOM and LCSYNT.

☐ After estimating ATSM, generate yields (P, Q) and TP for ALL maturities to get balanced panels (output tenors vs input tenors).

☐ Add policy rates data to macro data in structure of all countries.

☐ Replicate the analysis in Dahlquist & Hasseltoft on time-varying bond risk premia.

- ☐ Compare TP of Guimaraes vs KW and ACM.
- ☐ Structure for the US YC. In daily2monthly for US extract LCNOM, OIS, FF. Add Guimaraes TP.
- ☐ Correct US YC for credit risk (Chernov, Schmidt, Song).
- ☐ Repeat analysis using dataset of Wu (competes against GSW) to see how sensitive the results are to using GSW.
- ☐ Replicate Lloyd.
- ☑ Make sure all monthly data (yields, surveys, macro) has SAME end-of-month dates.
- ☒ Add als in pca to be able to estimate JSZ for initial values. Need balanced panel to use JSZ.
- ☑ Generate dataset w/o fitting NS to YCs.
- ☑ Replicate Guimaraes but w/o including the survey maturity for 10Y to see how much that maturity helps pinning down the parameters of the model. It helps a lot, especially with shorter samples.
- ☑ Explicit that longer series for AEs and surveys for EMs. Also, no surveys for AEs for comparison w/ other studies.
- ☑ Decompose US YC.
- ☑ Use surveys to decompose US YC and compare to Guimaraes.
- ☑ Look for ST expectations in CE for EMs to complement LT ones.
  - ☐ .

9 Literature

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- ☐ Serge Jeanneau and Camilo Tovar (2007) on development of LC bonds markets (before short-term debt and dollar-indexed liabilities). Jeanneau and Tovar (2008): for developments in LC bond markets.
- ☐ Papers suggested by Duffee: Agustin, Chernov, Schmid, Song; Banque de France.
- ☐ BIS bulleting 2020.
  - ☐ Hoffman Im and Shin (2020) for developments and references on LC bond markets. Emerging market economy exchange rates and local currency bond markets amid the Covid-19 pandemic.
  - ☐ Dollar funding costs during the Covid-19 crisis through the lens of the FX swap market.

- ☐ Leverage and margin spirals in fixed income markets during the Covid-19 crisis.

☐ JHU alumni paper on the Journal of Banking using C-P regressions, implications for replicating Dahlquist & Hasseltoft.

☐ R&R (2010): The Forgotten History of Domestic Debt.

☐ IMF(2019): A Guide to Sovereign Debt Data.

☐ G20(2020): Recent developments in EM LC bond markets.

☐ Erce & Mallucci (2018): Selective Sovereign Defaults