Information for Data Set

A Decomposition of Global Linkages in Financial Markets Over Time
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INFORMATION FOR DATASET USED TO ESTIMATE FACTOR MODEL
All data is weekly and taken from Datastream
Variables with a “_Ch” or “_Ret” are the changes or returns, respectively
Variables followed by “_MA” are the 2-week moving average returns

**StkRetUSD:** Stock market return for country ** expressed in US dollars
**StkRetLOC:** Stock market return for country ** expressed in local currency
**BonRetUSD:** Stock market return for country ** expressed in US dollars
**BonRetLOC:** Stock market return for country ** expressed in local currency
**ERChUSD:** Change in exchange rate for country **, expressed in local currency/USD

**WoStkRetUSD:** Return for World Stock Market Index in USD, calculated by MSCI
**Oil_Ch:** Change in Brent Current Oil price, FOB, in $ per barrel
**Gold_Ch:** Change in price of gold bullion, in $/oz, on the London Bullion Market
**Comm_Econ_Ch:** Change in index of commodities, calculated by the Economist, USD
**Comm_DJ_Ch:** Change in commodity index calculated by Dow Jones

**Disc_US:** Overnight discount rate in the US
**Disc_UK:** Overnight discount rate in the UK
**Disc_JP:** Overnight discount rate in Japan
**Disc_FR:** Overnight discount rate in France
**Disc_GE:** Overnight discount rate in Germany

**PC1** Principal component of US, UK, Japanese & German interest rates
**PC2** Principal component of US, UK, Japanese & ECB interest rates
**PC3** Principal component of US, UK & Japanese interest rates

**Sectoral Indices:** MSCI industrial sector indices (Morgan Stanley Capital International)
Original Indices: Based on 45 stock markets around world. Indices in US dollars.

1 Sec_Aero  Aerospace & Military Tech
2 Sec_Appl  Appliances & Household durables
3 Sec_Auto  Automobiles
4 Sec_Bank  Banking
5 Sec_Publ  Broadcasting & Publishing
6 Sec_Build  Building Materials & Comp
7 Sec_Bus  Business & Public Service
8 Sec_Chem  Chemicals
These 36 indices are then combined or dropped to construct 14 sectoral indices (process and definitions described in paper appendix); the resulting sectors used for the main analysis are denoted by Sec3*** and are:

Sec3Auto
Sec3Chem
Sec3Consum
Sec3Elec
Sec3Energy
Sec3Forest
Sec3Indust
Sec3Finance
Sec3Leisure
Sec3Merchand
Sec3Metal
Sec3Telecom
Sec3Text
Sec3Transp

Sec3Auto
Sec3Chem
Sec3Consum
Sec3Elec
Sec3Energy
Sec3Forest
Sec3Indust
Sec3Finance
Sec3Leisure
Sec3Merchand
Sec3Metal
Sec3Telecom
Sec3Text
Sec3Transp
INFORMATION FOR DATASET USED TO ESTIMATE BILATERAL LINKAGE MODEL

For Large Countries $c$: country number, country, country abbreviations
12. France FR
13. Germany GE
23. Japan JP
42. UK UK
43. US US

Full List of all Countries $i$ and $c$, plus abbreviations
1 Argentina AR
2 Australia AU
3 Austria OE
4 Belgium BE
5 Brazil BR
6 Canada CA
7 Chile CL
8 China CH
9 Colombia CB
10 Denmark DE
11 Finland FI
12 France FR
13 Germany GE
14 Greece GR
15 Hong Kong HK
16 Hungary HU
17 Iceland IC
18 India ID
19 Indonesia IN
20 Ireland IR
21 Israel IS
22 Italy IT
23 Japan JP
24 Korea KO
25 Kuwait KU
26 Malaysia MA
27 Mexico ME
28 Morocco MO
29 Netherlands NE
30 New Zealand NZ
31 Norway NO
32 Philippines PH
33 Poland PO
34 Portugal PT
35 Singapore SI
Codes for the years:
The flow variables are taken for the current year, the stock variables are taken from start of current year or end of previous year

1985-2000 Data for the individual year 1985 through 2000
1  Data for the full period from 1985-2000, averaged
2  Data for the full period from 1994-2000, averaged
10 Data for the full period from 1986-1990, averaged (mainly for stock markets)
11 Data for the full period from 1991-1995, averaged (mainly for stock markets)
12 Data for the full period from 1996-2000, averaged (mainly for stock markets)
20 Data for the full period from 1994-1997, averaged (mainly for bond markets)
21 Data for the full period from 1998-2000, averaged (mainly for bond markets)

Variables with “yr**” are dummies for the year **; for example yr1985 is a dummy equal to 1 if the year is 1985; yr1 is a dummy for the period 1985-2000

Definitions for Annual Data
Included_pair: A dummy equal to 1 if the pair of countries is included in the analysis
ctry_pairs: concatenate code for country i and code for country c

match1: Code to match data; format is country i number _country c number_year
match2: Code used to match data; number for country i_year

For all of following variables:
  _p: Variables followed by “_p” are expressed as percents; so ImportDem_p is ImportDem/100
  _sq: Variables followed by “_sq” are the squared terms
  _dif: Variables with a “dif” are first differences
  _lag: Variables with a “lag” are lagged by 1 period

GDP: GDP in '000 of US dollars; source: World Development Indicators
  Gdp_i: GDP for country i
  Gdp_c: GDP for country c
ImportDem: Import Demand, measured by imports into country c from country i as a share of country i GDP (multiplied by 100)

TradeComp: Trade competition from country c with country i based on 4-digit SIC codes; measured as exports from country c as a share of world exports in each 4-digit SIC group multiplied exports from country i as a share of country i GDP; product of these ratios is multiplied by each SIC group and divided by max to create an index

BankLend: Bank Lending, measured as BIS bank lending from country c into country i as a share of country i GDP (multiplied by 100)

ForeignInv: Foreign Investment, measured as the stock of foreign investment by country c in country i as a share of country i GDP (multiplied by 100)

reg_americas: Dummy equal to 1 if country is in the Americas region
reg_asia: Dummy equal to 1 if country is in the Asia region
reg_europe: Dummy equal to 1 if country is in the Europe region
reg_meafrica: Dummy equal to 1 if country is in the Middle East and Africa region
(See Table in paper for regional divisions)

oilgas_exp: Total exports in given year (in USD) of oil and gas (SITC codes 33 & 34)
SITC code 33 = petroleum, petroleum products & related materials
SITC code 34= gas, natural and manufactured

oilgas_GDP: Ratio of oilgas_exp to GDP

oilgas_dum: Dummy variable equal to 1 if country exports of oil&gas/GDP>5%

low_inc: Dummy variable equal to 1 if is a low income country, based on WDR, 2000
mid_inc: Dummy variable equal to 1 if is a middle income country, based on WDR, 2000
lowmid_inc: Dummy variable equal to 1 if is a low or middle income country, based on WDR, 2000
high_inc: Dummy variable equal to 1 if is a high income country, based on WDR, 2000

crisis_bank: Dummy variable equal to 1 if was a systemic banking crisis (as defined by Caprio & Klingebiel)
crisis_cur: Dummy variable equal to 1 if was a currency crisis (defined as a 25% fall in USD ER in any 4 week period)

outlier1: Dummy equal to 1 if one of the variables included in the base equation for that observation is an outlier; define outlier as equal to mean +/- 3 standard deviations for sample of included pairs
outlier2: Dummy equal to 1 if one of the variables included in the base equation for that observation is an outlier; define outlier as equal to mean +/- 5 standard deviations for sample of included pairs

IMFCode_ctryi: IMF/World Bank numerical code for country i
IMFCode_ctryc: IMF/World Bank numerical code for country c
**Definitions: Capital Control Data**

From Kaminsky-Schmukler (2002), 3 is more restricted & 1 is freer

- **KS DFS**: Capital controls measure for domestic financial system
- **KS KA**: Capital controls measure for the capital account
- **KS SM**: Capital controls measure for the stock market

From Edison-Warnock (2002)

- **EW FORS**: Foreign ownership restrictions-smoothed
- **EW FORU**: Foreign ownership restrictions-unsmoothed

From KA open measure

- **KA Open**: From Chinn and Ito (2002); see appendix in paper

**Betas**

Calculated in the factor model (equation 1) and then used for the bilateral linkage regressions (equation 2)

- **B WS ST USD**: Beta, with sectors, stock markets, USD
- **B WS ST LOC**: Beta, with sectors, stock markets, local currency
- **B WS BO USD**: Beta, with sectors, bond markets, USD
- **B WS BO LOC**: Beta, with sectors, bond markets, local currency
- **B NS ST USD**: Beta, no sectors, stock markets, USD
- **B NS ST LOC**: Beta, no sectors, stock markets, local currency
- **B NS BO USD**: Beta, no sectors, bond markets, USD
- **B NS BO LOC**: Beta, no sectors, bond markets, local currency
- **B LS ST USD**: Beta, large set of sectors (orig 37), stocks, USD
- **B LS ST LOC**: Beta, large set of sectors (orig 37), stocks, local currency
- **B LS BO USD**: Beta, large set of sectors (orig 37), bonds, USD
- **B LS BO LOC**: Beta, large set of sectors (orig 37), bonds, local currency
- **B NGWS ST USD**: Beta with no global factors, with sectors, stocks, USD
- **B NGWS ST LOC**: Beta with no global factors, with sectors, stocks, local cur
- **B NGWS BO USD**: Beta with no global factors, with sectors, bonds, USD
- **B NGWS BO LOC**: Beta with no global factors, with sectors, bonds, local cur
- **B NGNS ST USD**: Beta with no global factors, no sectors, stocks, USD
- **B NGNS ST LOC**: Beta with no global factors, no sectors, stocks, local cur
- **B NGNS BO USD**: Beta with no global factors, no sectors, bonds, USD
- **B NGNS BO LOC**: Beta with no global factors, no sectors, bonds, local cur
- **B NS XX ST USD**: Beta, no sectors, excludes x-country for UK & GE, stocks, USD
- **B NS XX ST LOC**: Beta, no sectors, excludes x-country for UK & GE, stocks, loc
- **B NS XX BO USD**: Beta, no sectors, excludes x-country for UK & GE, bonds, USD
- **B NS XX BO LOC**: Beta, no sectors, excludes x-country for UK & GE, bonds, loc
**Definitions: Gravity Model Data**

All following variables taken from Andy Rose (2002), “Do We Really know that the WTO Increases Trade?”, NBER Working Paper #9273, and available on Rose’s website.

*border:* Binary variable equal to 1 if countries $i$ and $c$ share a land border, originally from CIA World Factbook

*common_lang:* Binary variable equal to 1 if $i$ and $c$ have a common language, originally from CIA World Factbook

*colony:* Binary variable equal to 1 if $i$ ever colonized $c$ (or vice versa), originally from CIA World Factbook

*ln_distance:* Natural log of the distance between countries $i$ and $c$, with distance based on latitude and longitude data from CIA World Factbook

*real_GDP_i:* Real GDP (in constant 1995 US dollars) of country $i$, from WDI

*real_GDP_c:* Real GDP (in constant 1995 US dollars) of country $c$, from WDI

*ln_real_GDP_ic:* Ln of the Product of real_GDP_i and real_GDP_c