BANK FOR INTERNATIONAL SETTLEMENTS

Use of the BIS international banking statistics

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Primary uses of BIS data by policy makers

- System-level ***Maturity transformation*** and ***funding risk***
  - Funding ("roll-over") needs in particular currencies
  - Ex: Non-US banks' cross-currency funding of USD assets

- ***Credit risks and Common exposures***
  - Ex: European banks' aggregate to US mortgage risk
  - Ex: European banks' aggregate exposure to European sovereign risk

- ***BIS International Banking Statistics*** (IBS) useful in both analyses
  - Statistics not designed with these questions in mind…
  - … but are a stepping stone to more complete data

What are the BIS International Banking Statistics (BIS IBS)

- Four different datasets:
  1. LBS_R: Locational by residency
  2. LBS_N: Locational by nationality
  3. CBS_IB: Consolidated on immediate borrower basis (IB basis)
  4. CBS_UR: Consolidated on ultimate risk basis (UR basis)

- What's in there (generally speaking)?
  - Banks' consolidated *foreign assets*
  - …and limited information on their *foreign liabilities*
  - Positions broken down by:
    - Counterparty country (ie "vis-à-vis country")
    - Counterparty sector (coarse breakdown)
    - Currency (5 majors plus domestic currency of counterparty country)

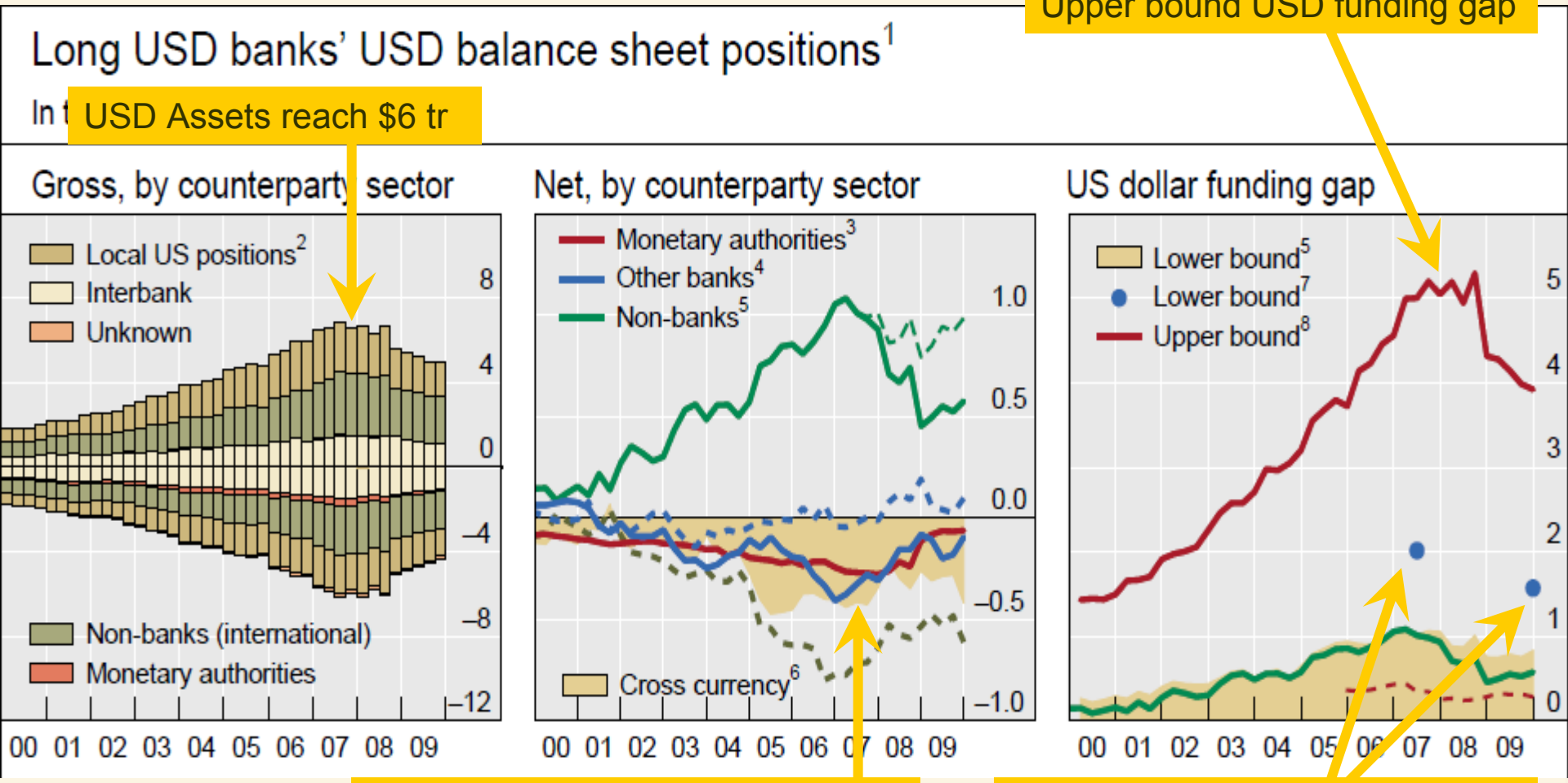
Funding Risks: Currency is key

- Central banks' USD swap lines were needed to calm funding markets

- ***Central bankers' questions:***
  - *How big are funding requests from foreign central banks likely to be?*
  - *In which currencies?*
  - *How can a CB monitor the extraterritorial use of its currency?*

- ***BIS data:*** picture of banks' consolidated *foreign currency* positions
  - Combination of CBS and LBS provide rough estimates
  - But there are holes !! (explained below)

Funding risks: European banks' USD positions



Funding Risks: Holes in the BIS IBS

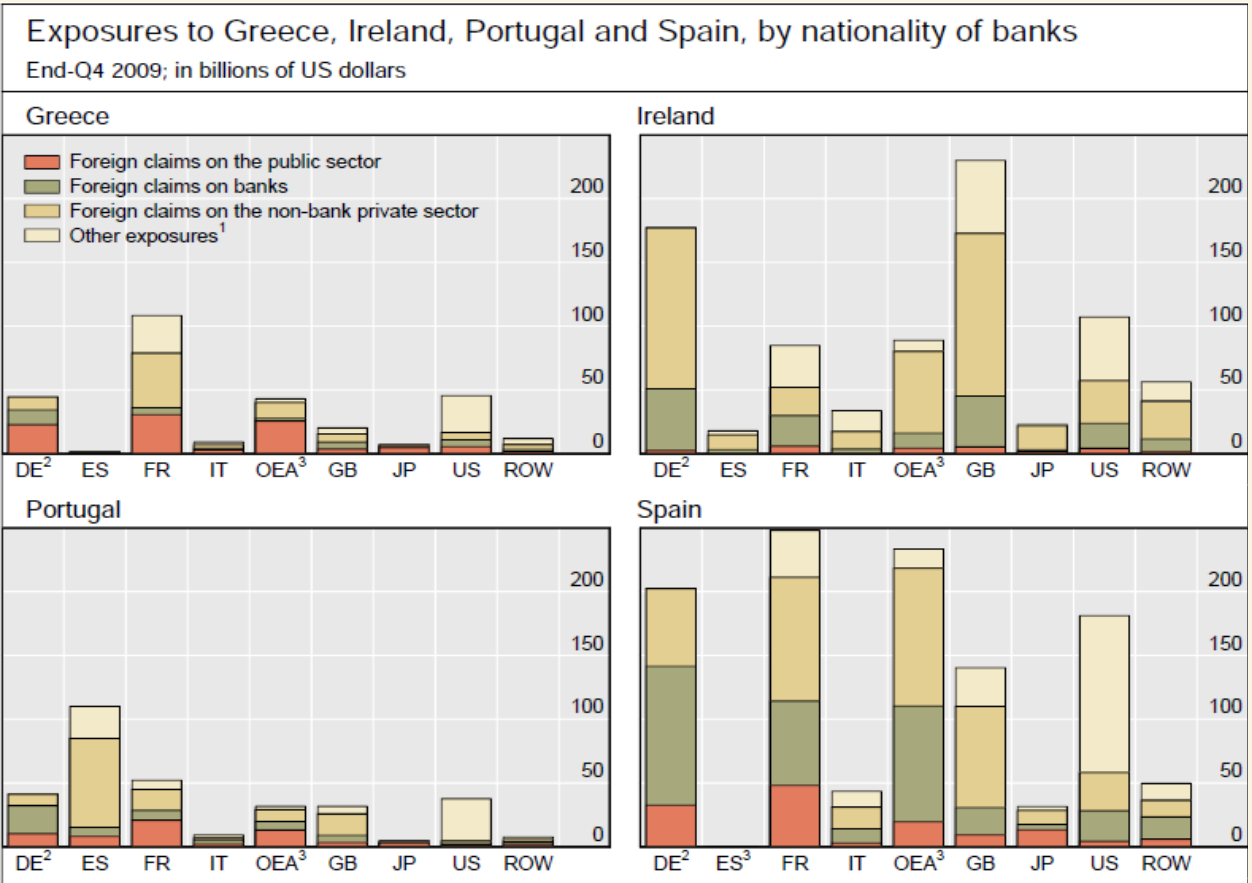
- ***Currency*** and ***counterparty country*** data are nice, but…

- No actual data on the ***remaining maturity*** of assets and liabilities
  - Above analysis used counterparty sector as a (very) rough proxy

- No detailed information on ***counterparty types***
  - Above analysis treated all "non-banks" the same
  - Can't aggregate funding from "non-bank financial sector" (eg MMFs)

- No information on ***instrument types***
  - No actual data on use of "FX swaps" and cross-currency hedging
  - Above analysis derived FX swaps from a "balanced book" (TA=TL in USD)
  - Cannot differentiate between loans, bonds and structured finance assets

Credit Risks Example 1: European Sovereigns



- BIS IBS provide internationally-comparable measures
- "Ultimate Risk" takes into account ***credit risk mitigants*** (CRMs)
- Figures can be compared to capital
- See also Table 9.E here: http://www.bis.org/statistics/r_qa1206_anx9e_u.pdf

Credit Risks Example 1: European Sovereigns

Claims on the public sector as a share of Tier I capital (end-Q1 2011)

	Exposures to	AT	BE	FI	FR	DE	GR	IE	IT	NL	PT	ES	ROE	EA
Bank nationality	US	0.3%	1.3%	0.4%	3.0%	7.7%	0.2%	0.2%	1.6%	0.6%	0.1%	0.7%	0.3%	16.3%
	GB	0.2%	1.1%	0.7%	9.4%	14.1%	0.8%	0.9%	2.6%	4.7%	0.4%	1.8%	1.2%	38.0%
	JP	0.8%	2.0%	0.4%	7.9%	20.4%	0.0%	0.2%	6.2%	2.0%	0.2%	2.2%	0.1%	42.5%
	SEA	3.6%	8.7%	0.8%	7.2%	12.2%	3.5%	0.9%	21.7%	3.7%	2.3%	8.0%	2.0%	52.5%
	Exposures to	CA	HK	JP	SG	CH	GB	US	A & ME	A & P	LA & C	DEE	ROW	TOTAL
Bank nationality	US	1.7%	1.0%	11.3%	1.6%	0.6%	6.6%		2.4%	11.6%	10.5%	3.5%	4.9%	**72.1%**
	GB	4.1%	15.0%	10.9%	4.1%	4.8%		64.9%	11.1%	22.4%	12.5%	3.5%	9.7%	**200.9%**
	JP	4.0%	1.2%		1.1%	0.2%	7.8%	84.1%	1.1%	7.9%	7.9%	2.1%	12.5%	**172.3%**
	SEA	4.6%	1.1%	10.1%	1.0%	1.9%	2.7%	19.8%	3.6%	5.4%	2.7%	13.4%	6.0%	**146.9%**

A & ME = Developing Africa and Middle East; A & P = Developing Asia and Pacific; AT = Austria; BE = Belgium; CA = Canada; CH = Switzerland; CY = Cyprus; DE = Germany; DEE = Developing Europe; DK = Denmark; EA = Euro area; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; GR = Greece; HK = Hong Kong SAR; IE = Ireland; IT = Italy; JP = Japan; LA & C = Developing Latin America and Caribbean.; LU = Luxembourg; MT = Malta; NL = Netherlands; NO = Norway; PT = Portugal; ROE = rest of euro area countries; ROW = rest of the world; SEA = Selected euro area countries (BE, DE, FR and NL); SG = Singapore; SI = Slovenia; SK = Slovakia; US = United States.

Colour coding is applied as follows: 10%≤ < 50%≤ < 100% ≤

Credit risk Ex 2: Exposure to US mortgage market

- Back in 2005, many policy makers *asked* *repeatedly* about
  - … the size of banks' exposures to the US *household sector*
  - … how banks laid-off this risk (eg hedged)
  - … where this risk accumulated (via net risk transfers)

- BIS IBS data proved less useful in this case. Why?
  - Counterparty-sector too broad (households not broken out)
  - BIS "ultimate risk" too broad (includes inward risk transfers)
  - No direction of risk transfers ➔ can't see where hedges accumulate

That's it!

Thank you.

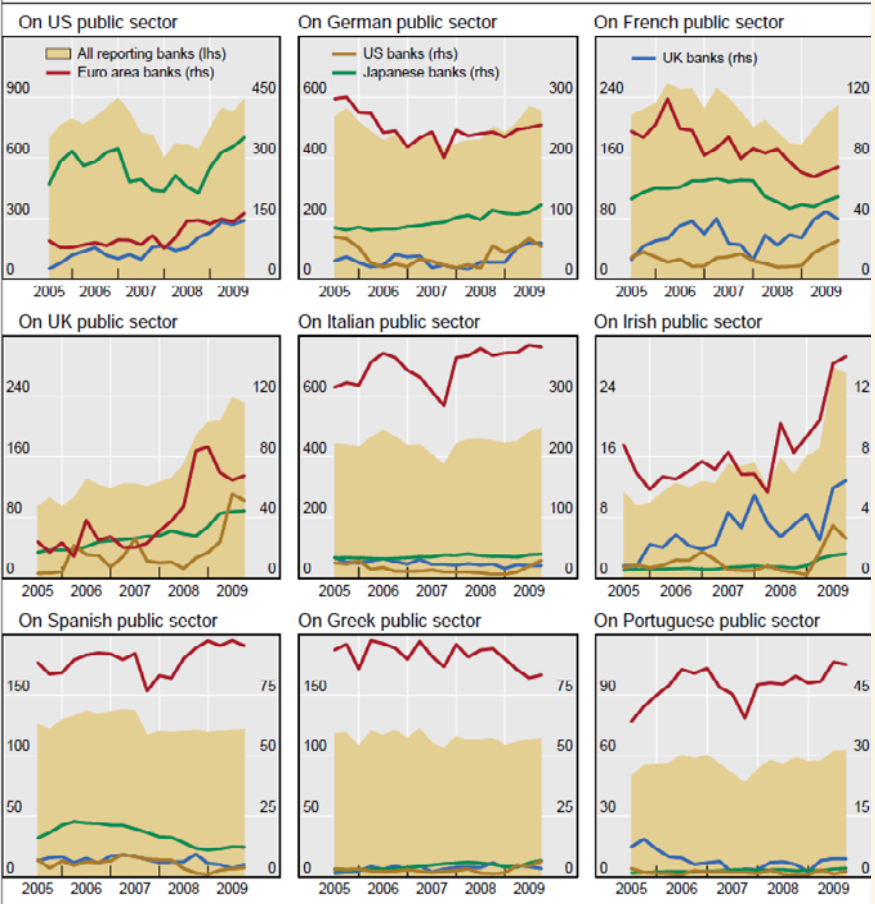
Questions?

(extra slides below)

Credit risk: Sovereign Risk

Foreign claims on the public sector by nationality of reporting banks[1]

At constant end-Q3 2009 exchange rates, in billions of US dollars



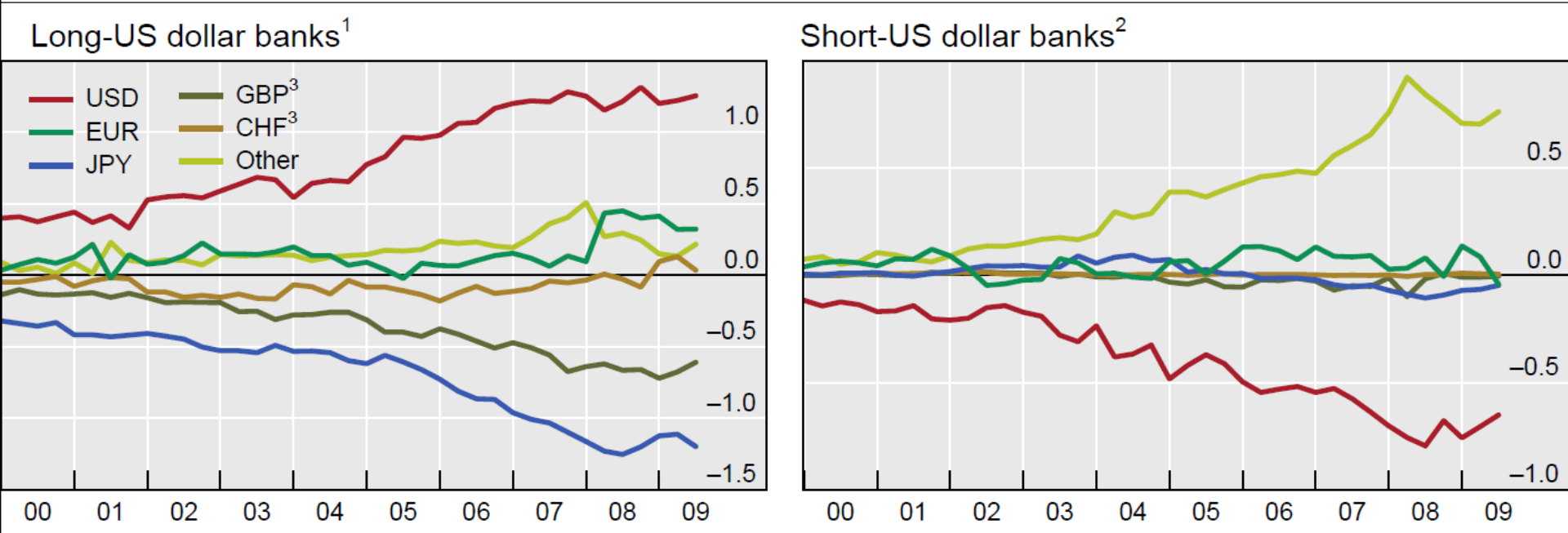
[1] Public sector comprises the general government sector, central banks and multilateral development banks. Claims on the public sector of each country are assumed to be denominated in the currency of the respective country.

Source: BIS consolidated banking statistics (ultimate risk basis). Graph 5

Funding risk: Opaque "FX swap" financing

Short- and long-US dollar banks' net FX swap positions, by currency

In trillions of US dollars



[1] Includes Canadian, Dutch, German, Japanese, Swiss and UK banks. [2] Includes Australian, Belgian, Danish, Spanish, Finnish, French, Italian, Luxembourgian, Norwegian, Portuguese, Swedish, Hong Kong, Greek, Turkish and Taiwanese banks. [3] Positions booked by offices located in Switzerland (for CHF) and in the United Kingdom (for GBP). CHF and GBP positions reported by offices located elsewhere are included in "Other".

Sources: BIS consolidated statistics (immediate borrower and ultimate risk basis); BIS locational statistics by nationality; BIS calculations.

Graph 6