ARE REGULATION AND ECONOMIC DEVELOPMENTS PUSHING RISKS INTO SHADOW BANKING?

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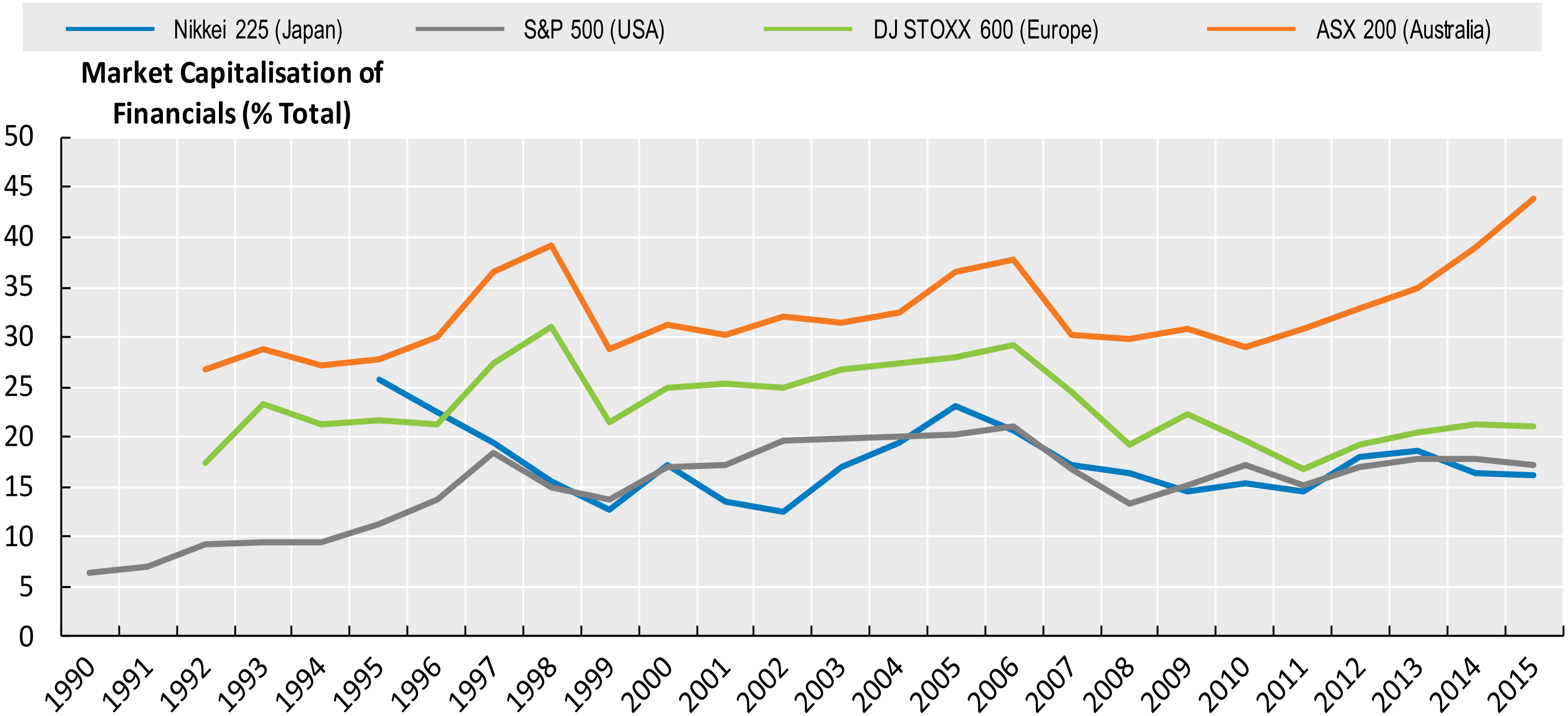
OECD
BETTER POLICIES FOR BETTER LIVES

OECD 2008-09 View on Dealing with the Crisis

OECD publications consistently recommended three key elements of banking reform:

- Deal with any troubled assets first.
- Recapitalise banks.
- Regulatory focus on a simple leverage ratio of at least 5% of the un-weighted (IFRS) balance sheet, and not to rely on the Basel risk weighting approach to capital rules.
- Separate derivatives and other high-risk investment banking activities from insured deposit balance sheets that subsidises these activities and leads to an under-pricing of risk

Financialisation: Share of Financial Companies Among Overall Equity Index Components



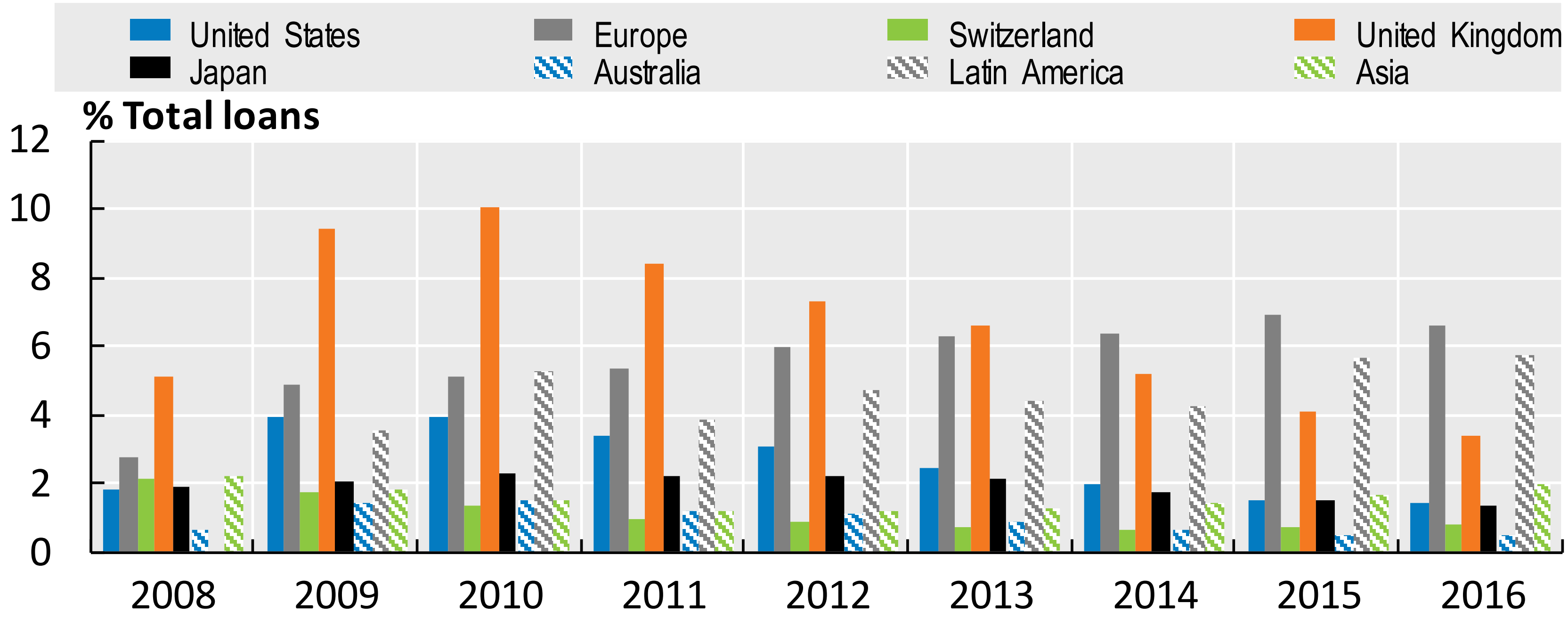
The Basel III Framework

	Capital					Liquidity
	Pillar 1			Pillar 2	Pillar 3	
	Capital	Risk coverage	Containing	Risk management and	Market discipline	
All banks	**Quality and level of capital** Greater focus on common equity Minimum 4.5% of RWA after deductions **Capital loss absorption at the point of non-viability** Write-off or conversion to common shares allowe if the bank is judged to be non-viable **Capital conservation buffer** Comprising common equity of 2.5% of RWA (standard up-to 7%) Constraint on a bank's discretionary distributions when falling into the buffer range **Countercyclical buffer** Imposed within a range of 0-2.5% comprising common equity When authorities judge credit growth is resulting in an unacceptable build up of systematic risk	**Securitisations** Strengthens capital treatment for complex securitisations More rigorous credit analyses of externally rated securitisations **Trading book** Higher capital for trading and derivatives activities and complex securitisations A stressed value-at-risk framework to help mitigate procyclicality A capital charge for incremental risk estimating default and migration risks of unsecuritised credit products **Counterparty credit risk** More stringent requirements for measuring exposure Capital incentives to use central counterparties for derivatives Higher capital for inter-financial sector exposures **Bank exposures to central counterparties (CCPs)** Trade exposures to a qualifying CCP receive a 2% risk weight Default fund exposures to a qualifying CCP capitalised according to a risk-based method on risk arising from such default fund	**Leverage ratio** A non-risk-based leverage ratio including off-balance sheet exposures to contain system wide build up of leverage	Address firm-wide governance and risk management Capturing the risk of off-balance sheet exposures and securitisation activities Managing risk concentrations Providing incentives for banks to better manage risk and returns over the long term Sound compensation practices Valuation practices Stress testing Accounting standards for financial instruments Corporate governance Supervisory colleges	Requirements for securitisation exposures and sponsorship of off-balance sheet vehicles Enhanced disclosures on the detail of the components of regulatory capital and their reconciliation to the reported accounts	**Liquidity coverage ratio** Sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is specified by supervisors **Net stable funding ratio** Longer-term structural ratio designed to address liquidity mismatches Covering the entire balance sheet and providing incentives for banks to use stable sources of funding **Principles for Sound Liquidity Risk Management and Supervision** The Committee's 2008 guidance takes account of lessons learned during the crisis and is based on a fundamental review of sound practices for managing liquidity risk in banking organisations **Supervisory monitoring** A common set of monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system-wide level
G-SIFIs	Additional loss absorbency requirements with a progressive Common Equity Tier 1 (CET1) capital requirement ranging from 1% to 2.5% An additional loss absorbency of 1% could be applied for banks facing the highest SIB surcharge					

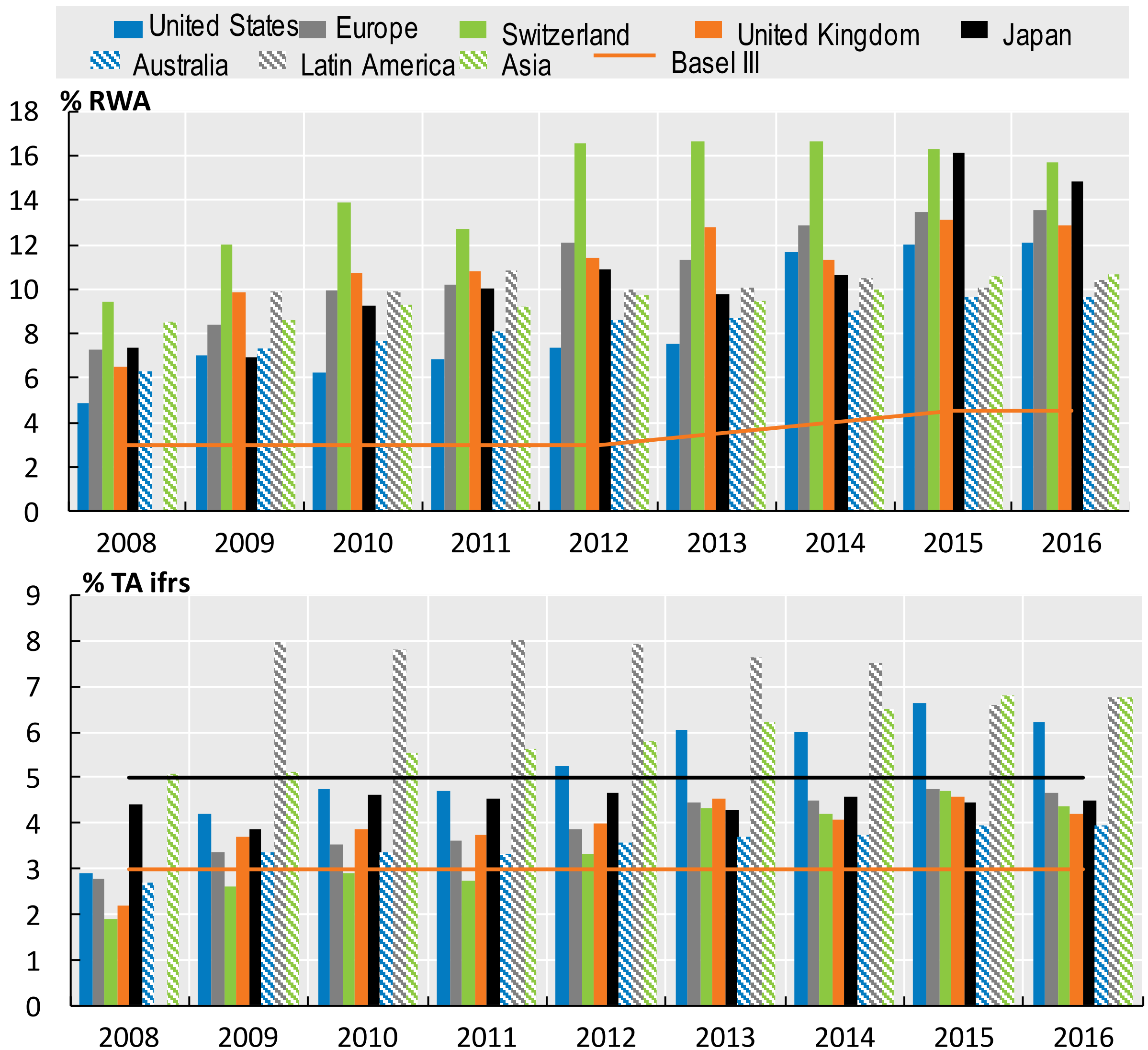
Phasing in Basel III Implementation Framework

	Phases	2013	2014	2015	2016	2017	2018	2019
Capital	**Leverage Ratio**		Parallel run 1 Jan 2013 – 1 Jan 2017, Disclosure starts 1 Jan 2015				Migration to Pillar 1	**3.0**
	Minimum Common Equity Capital Ratio	3.5	4.0		4.5			**4.5**
	Capital Conservation Buffer				0.625	1.25	1.875	**2.5**
	Minimum common equity plus capital conservation buffer	3.5	4.0	4.5	5.125	5.75	6.375	**7.0**
	Phase-in of deductions from CET1*		20	40	60	80	100	**100**
	Minimum Tier 1 Capital	4.5	5.5		6.0			**6.0**
	Minimum Total Capital				8.0			**8.0**
	Minimum Total Capital plus conservation buffer		8.0		8.625	9.25	9.875	**10.5**
	Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital		Phased out over 10 year horizon beginning 2013					
Liquidity	**Liquidity coverage ratio**			60	70	80	90	**100**
	Net stable funding ratio						Minimum standard	

Non performing Loans by Region



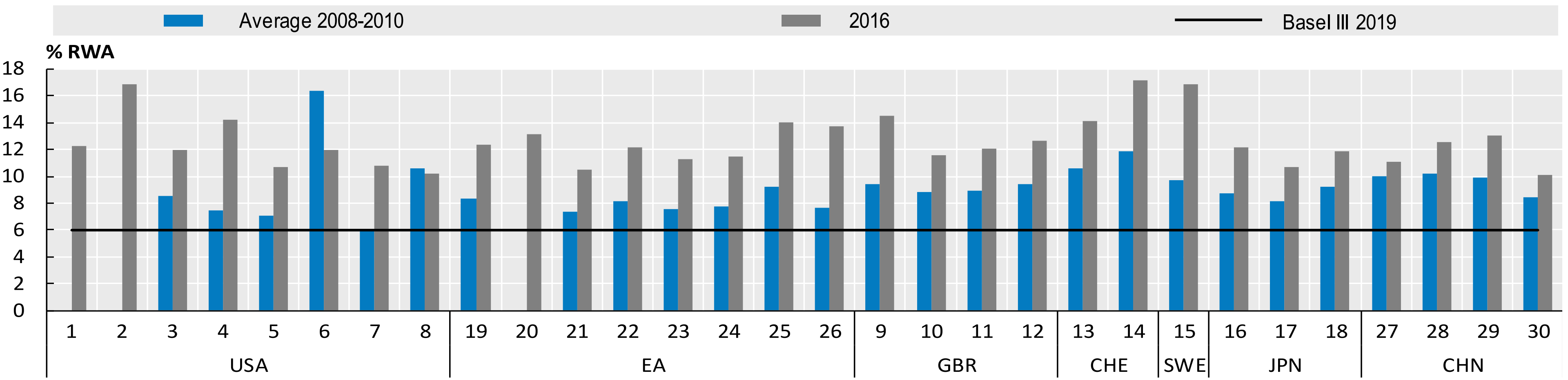
Core Tier 1: Basel Risk-Weighted versus the Simple Leverage Ratio

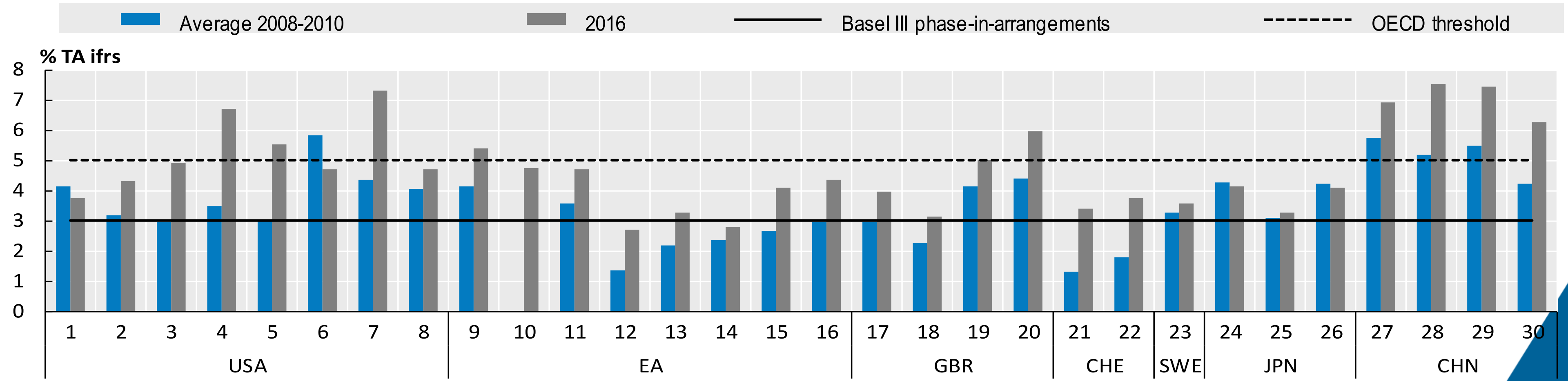


Capital Shortfall to Reach a 5% Leverage Ratio and a 3% Ratio, % GDP

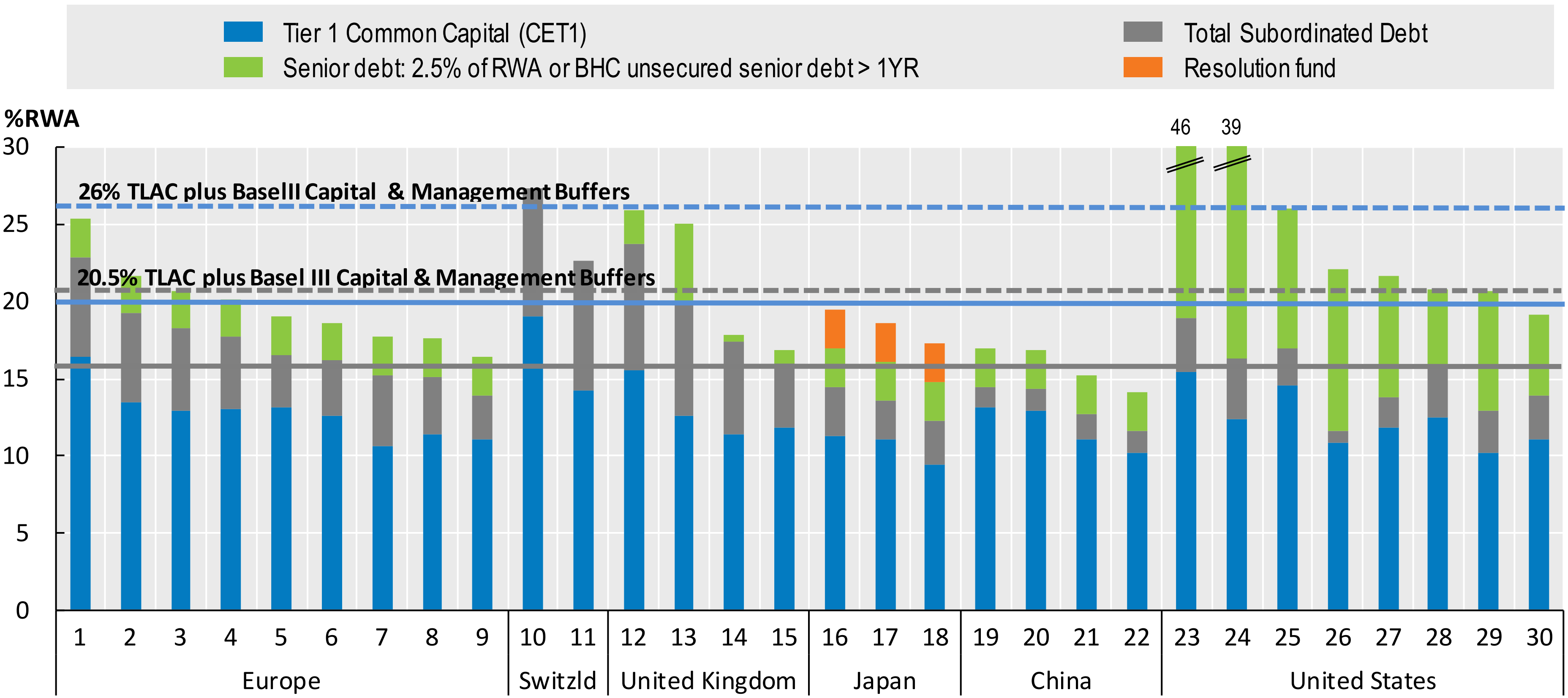
	Tier 1 capital leverage ratio (%)	Core Tier 1 capital leverage ratio (%)	Core Tier-1 capital required to reach 5% of assets in selected banks (%GDP)	Core Tier-1 capital required to reach 3% of assets in selected banks (%GDP)
Austria	6.8	6.6	0.3	0.0
Belgium	5.1	4.8	1.3	0.0
Cyprus	11.4	11.0	0.0	0.0
Denmark	4.8	4.4	2.6	0.0
Finland	4.9	4.7	1.6	0.0
France	4.1	3.7	3.8	0.1
Germany	4.2	4.0	1.8	0.2
Switzerland	5.5	4.9	2.8	0.0
Greece	10.9	10.9	0.0	0.0
Ireland	7.2	6.6	0.3	0.1
Italy	5.7	5.4	0.2	0.0
Netherlands	5.1	4.4	1.9	0.0
Malta	5.5	5.5	0.3	0.0
Norway	7.5	6.9	0.0	0.0
Portugal	6.0	6.0	0.4	0.0
Spain	5.8	5.7	0.1	0.0
Sweden	4.2	3.7	3.4	0.0
UK	**5.0**	**4.2**	**2.3**	**0.0**
Europe	**5.0**	**4.6**	**1.7**	**0.1**
Japan	**4.9**	**4.5**	**3.0**	**0.0**
USA	**7.1**	**6.3**	**0.3**	**0.0**
Australia	**5.0**	**4.3**	**2.1**	**0.0**
Canada	**4.4**	**3.8**	**3.0**	**0.0**

How Do Individual Banks Compare: Basel III versus the Leverage Ratio for Core Tier 1?





TLAC and Individual Banks

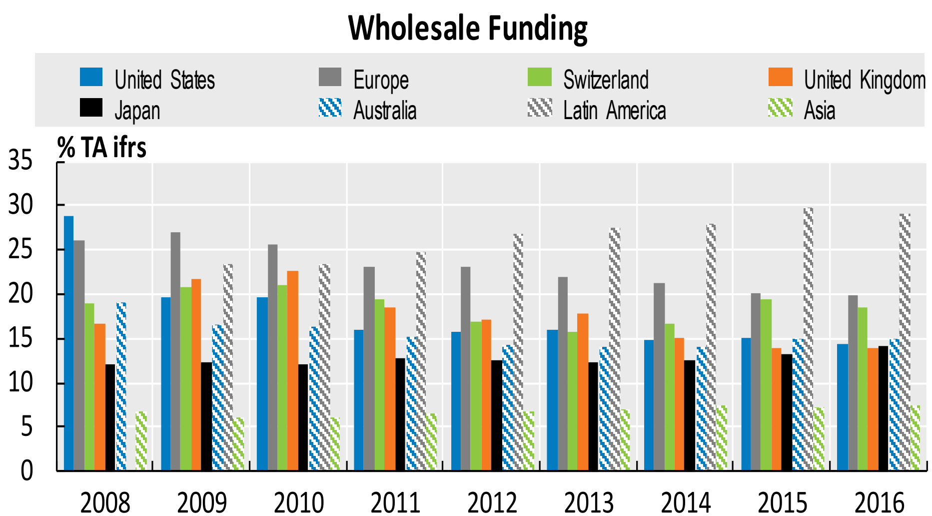


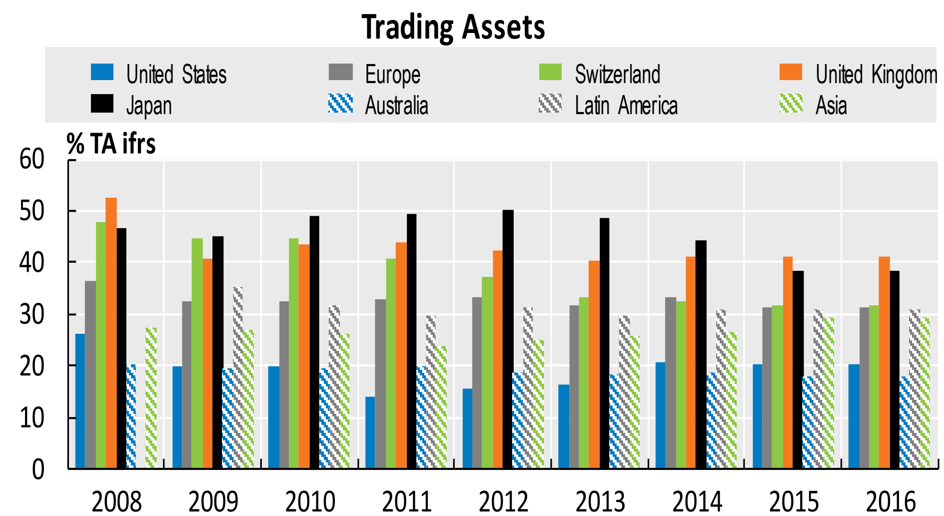
Determinants of Bank Risk

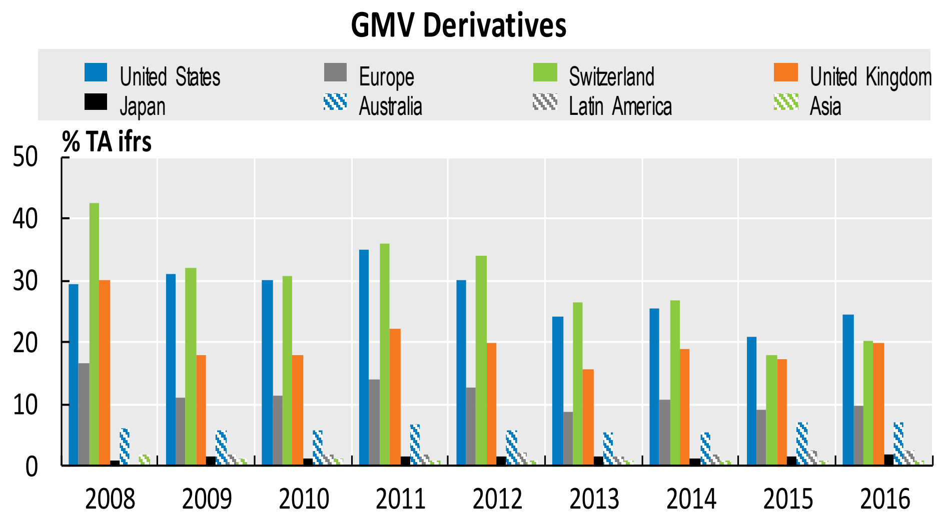
OECD research consistently revealed that the Basel risk-weighted capital ratio has never had any correlation with the DTD, regardless of the sample period chosen. Instead four factors were found always to be important:

- The simple leverage ratio (higher is safer).
- The ratio of gross market value (GMV) of derivatives (which embodies synthetic leverage) to total assets (TA) is negatively associated with the DTD—higher is more risky).
- The ratio of available-for-sale tradable securities to TA (higher makes a bank safer as it provides a buffer in the event of liquidity crises).
- The ratio of wholesale funding to TA (higher is more risky), so that a stable funding deposit base is to be preferred.

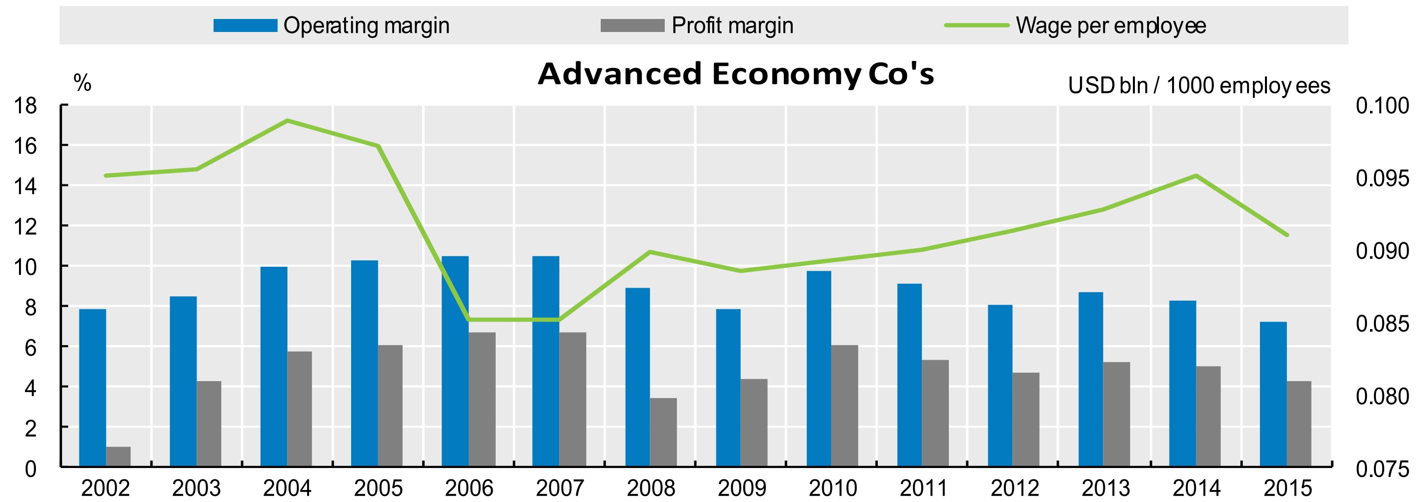
Business Model Features That Drive Risk in GSIB Banks

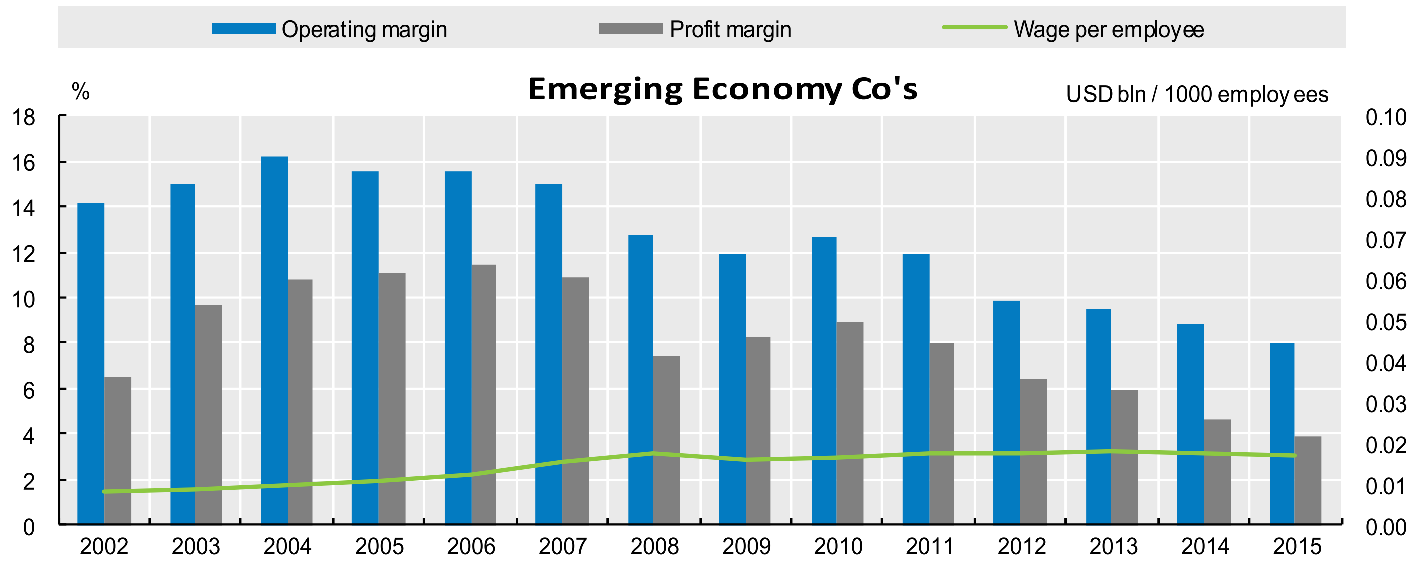




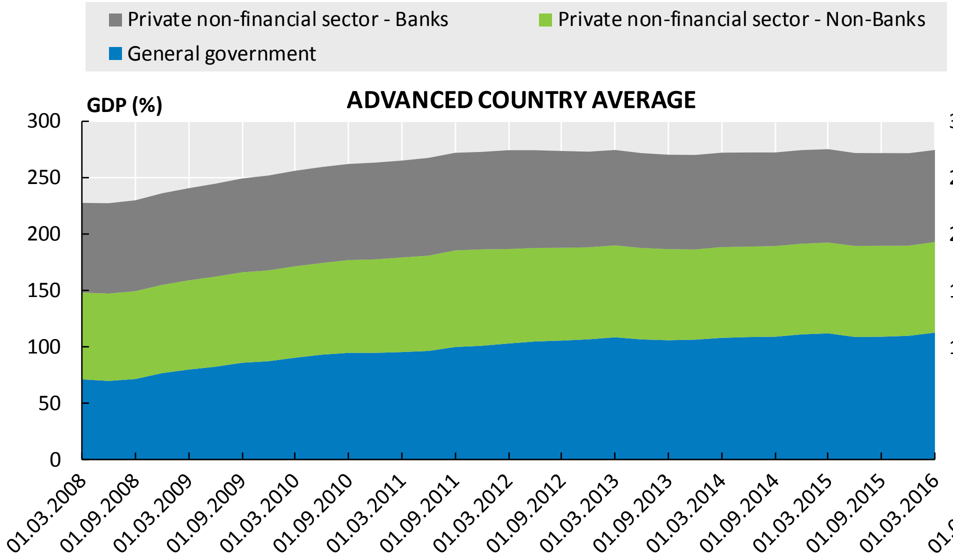


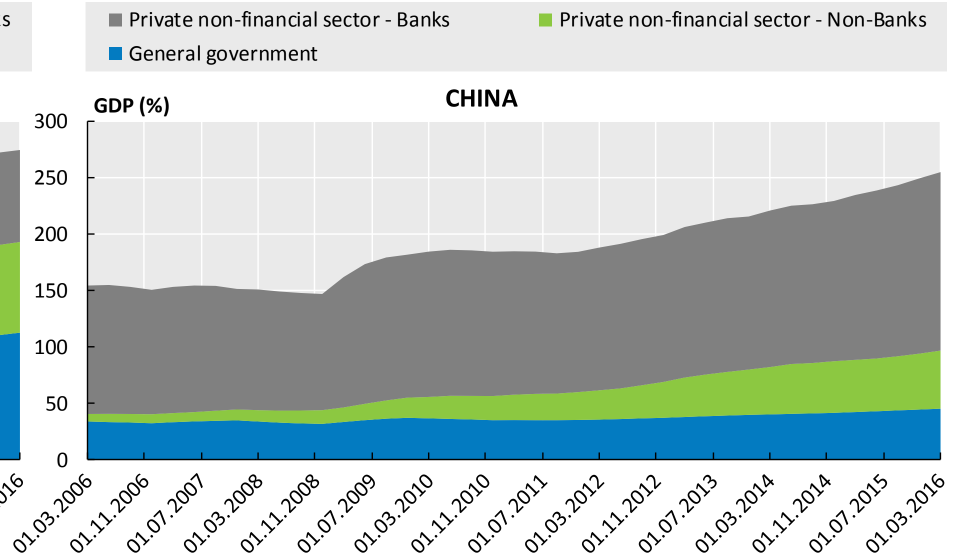
Profit Margins and Remuneration in Advanced versus Emerging Countries

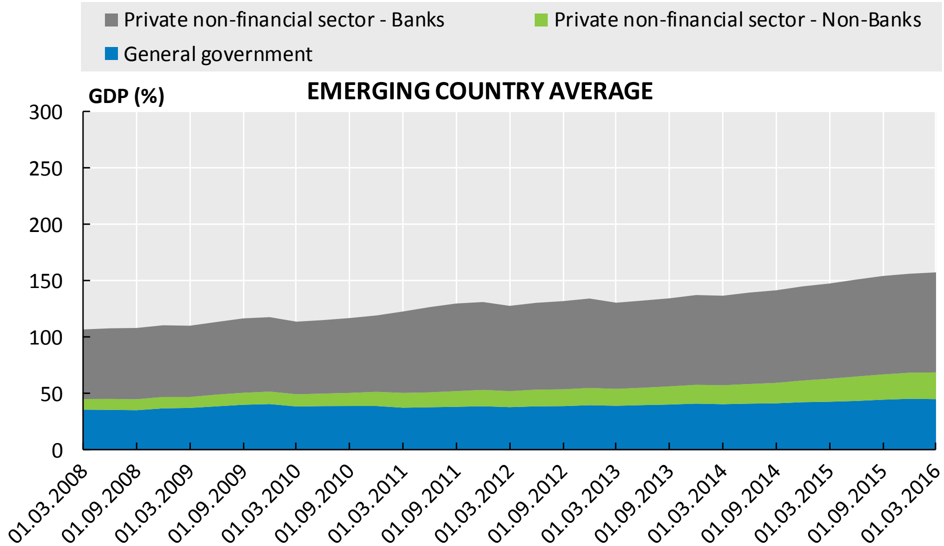




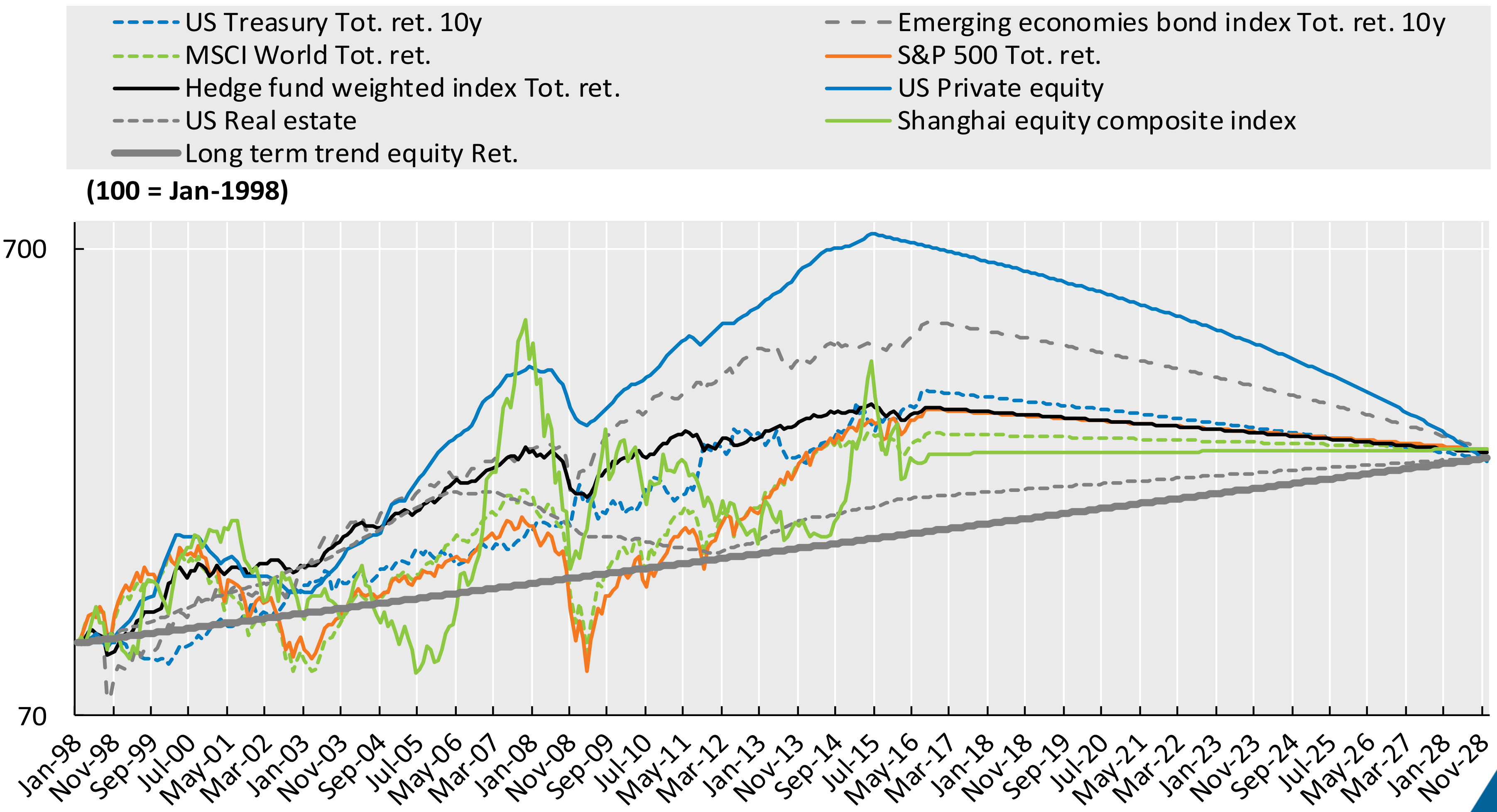
Indebtedness by Sector in Advanced and Emerging Countries



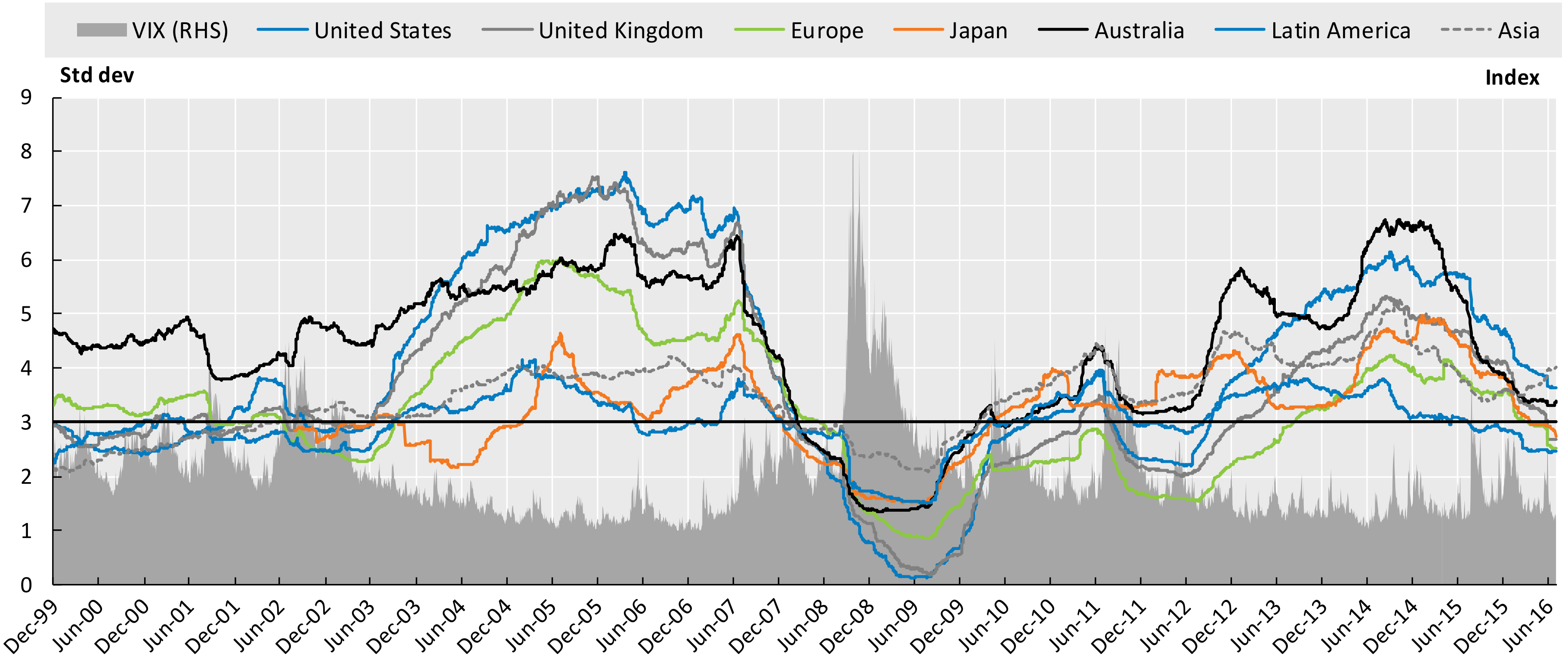




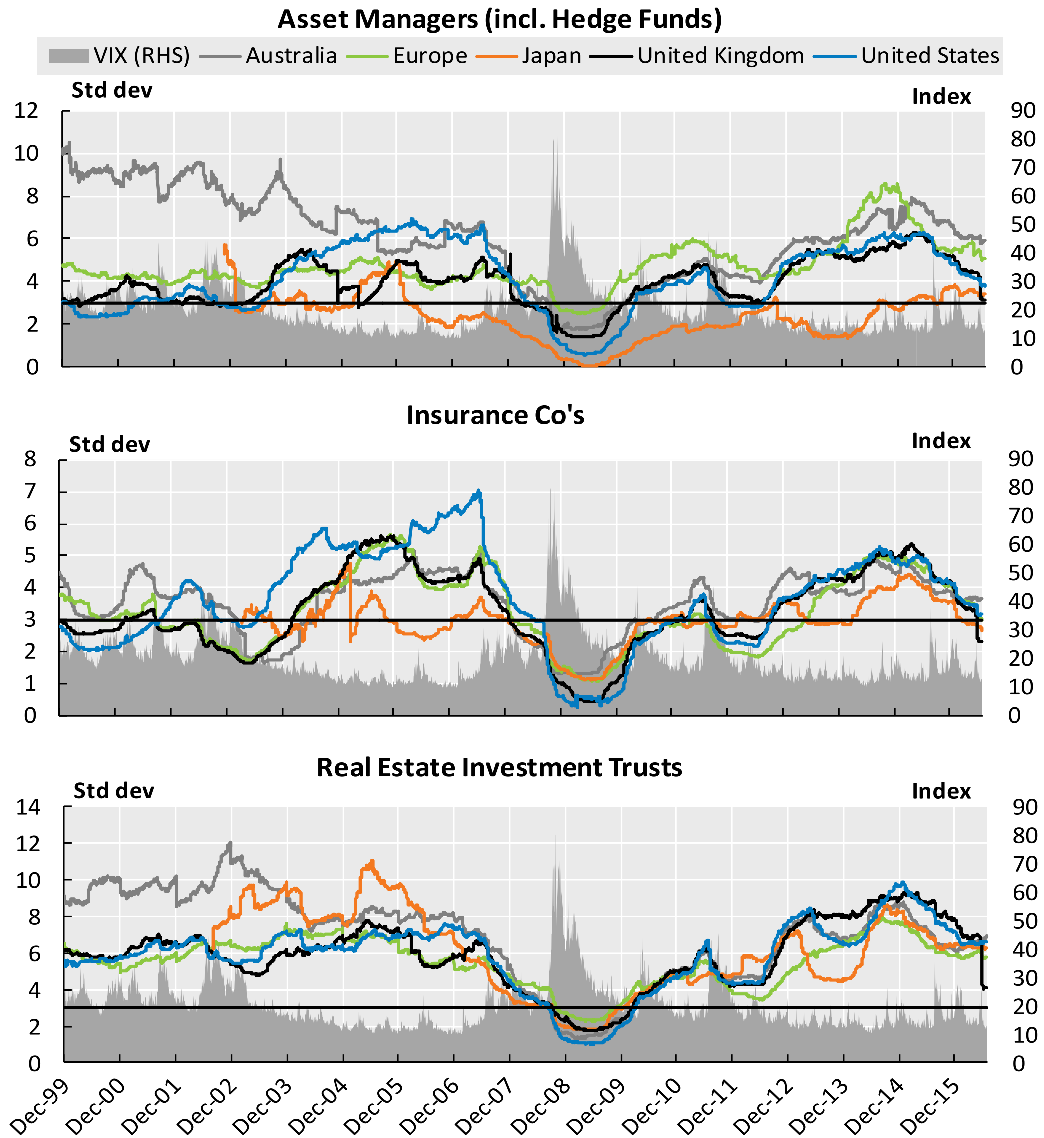
Selected Asset Prices versus Long-run Trend



Bank Distance-to-Default: Weighted Bank Averages by Region



Shadow Bank Distance-to-Default: Weighted Bank Averages by Region



Shadow Bank 'Beta' versus the Distance-to-Default of Banks by Country

	2000-2007	2008-2016
All Countries		
Assets managers	1.21	1.40
Life insurers	1.08	1.02
Real estate investment funds	0.37	1.88

Distance-to-Default Granger Causality Tests: Banks, Asset Managers, Insurance Companies and REITS (1)

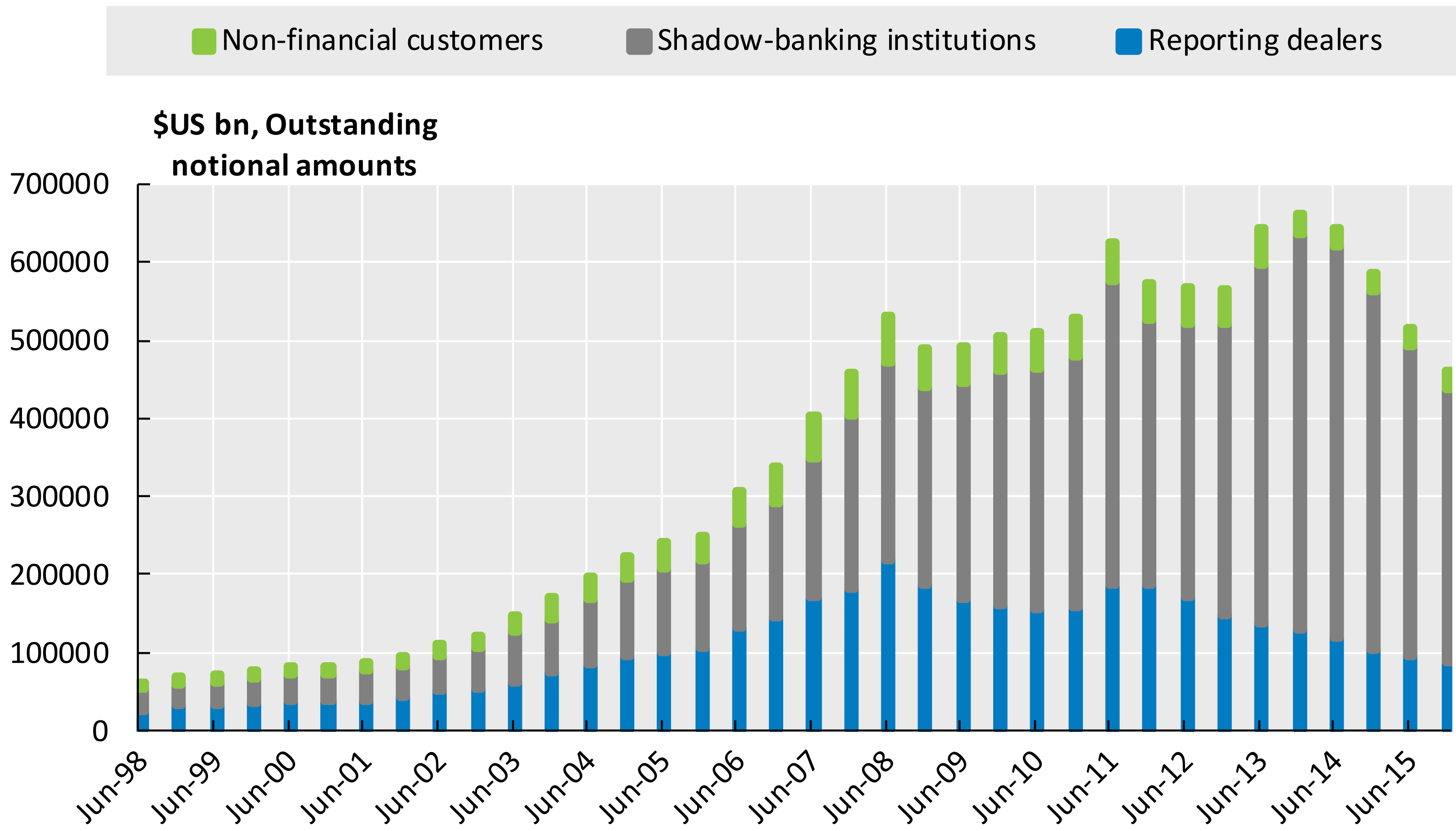
Granger causality results using 30 days lags: Hypothesis variable in the left column does not cause the variable in the row. The dependent variable is the distance-to-default of banks.

	Daily financial company data from 01-2000 to 12-2007				Daily financial company data from 01-2008 to 06-2016			
	DTD Assets managers	DTD Life insurers	DTD Real estate investment funds	DTD Banks	DTD Assets managers	DTD Life insurers	DTD Real estate investment funds	DTD Banks
All Countries								
DTD Assets managers	-	-	-	reject **	-	-	-	reject **
DTD Life insurers	-	-	-	reject **	-	-	-	reject **
DTD Real estate investment funds	-	-	-	reject **	-	-	-	reject *
DTD Banks	reject ***	reject ***	reject ***	-	reject ***	reject ***	reject ***	-
United States								
DTD Assets managers	-	-	-	reject ***	-	-	-	no reject
DTD Life insurers	-	-	-	reject ***	-	-	-	no reject
DTD Real estate investment funds	-	-	-	no reject	-	-	-	reject ***
DTD Banks	reject ***	reject ***	reject ***	-	reject ***	reject ***	reject ***	-
Europe								
DTD Assets managers	-	-	-	reject ***	-	-	-	reject **
DTD Life insurers	-	-	-	reject ***	-	-	-	reject ***
DTD Real estate investment funds	-	-	-	no reject	-	-	-	reject ***
DTD Banks	reject ***	reject ***	reject ***	-	reject ***	reject ***	reject ***	-

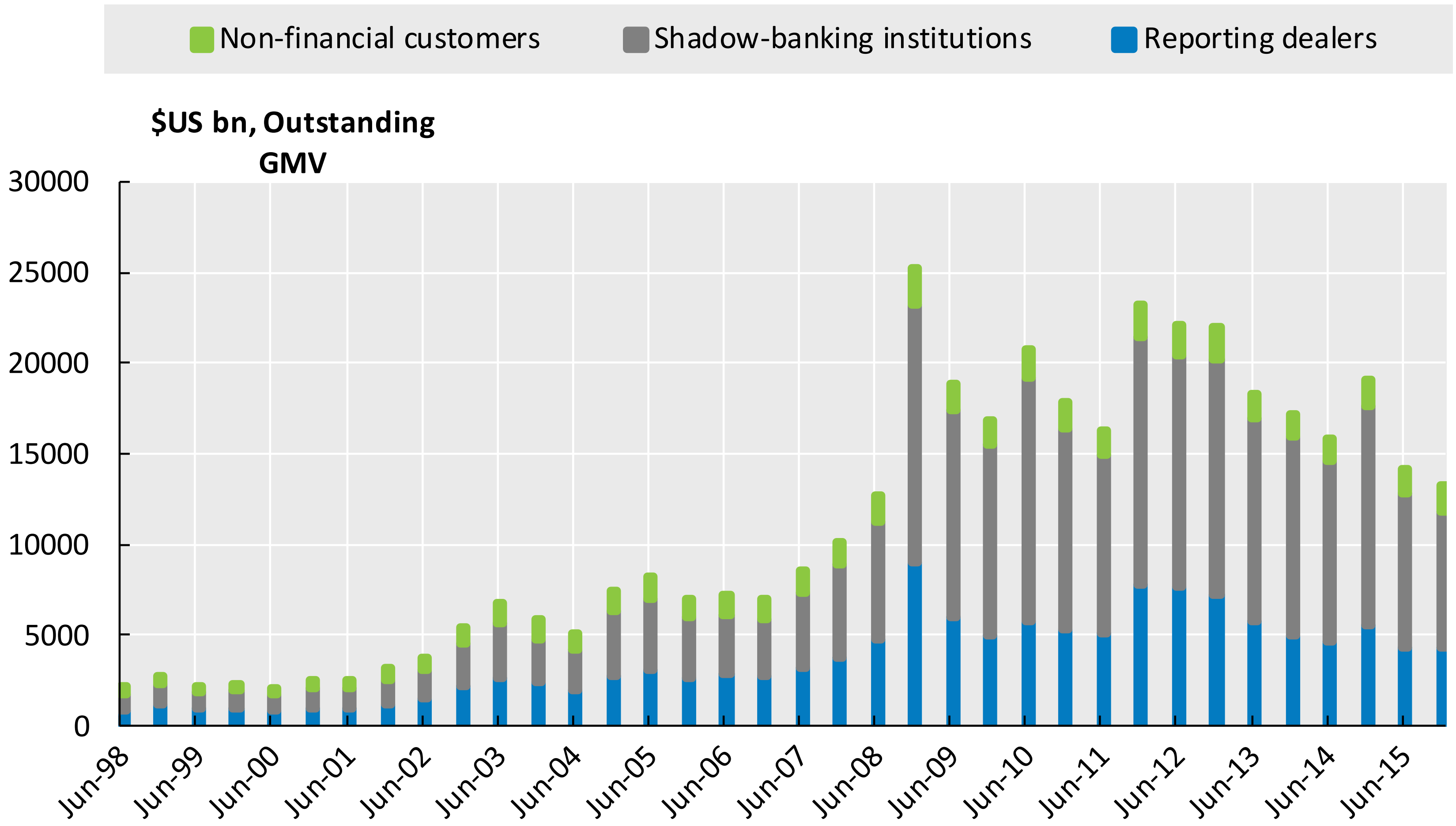
Distance-to-Default Granger Causality Tests: Banks, Asset Managers, Insurance Companies and REITS (2)

Granger causality results using 30 days lags: Hypothesis variable in the left column does not cause the variable in the row. The dependent variable is the distance-to-default of banks.								
	Daily financial company data from 01-2000 to 12-2007				Daily financial company data from 01-2008 to 06-2016			
	DTD Assets managers	DTD Life insurers	DTD Real estate investment funds	DTD Banks	DTD Assets managers	DTD Life insurers	DTD Real estate investment funds	DTD Banks
United Kingdom								
DTD Assets managers	-	-	-	no reject	-	-	-	reject ***
DTD Life insurers	-	-	-	reject ***	-	-	-	no reject
DTD Real estate investment funds	-	-	-	reject ***	-	-	-	no reject
DTD Banks	reject ***	reject ***	reject ***	-	reject ***	reject ***	reject ***	-
Japan								
DTD Assets managers	-	-	-	no reject	-	-	-	no reject
DTD Life insurers	-	-	-	reject ***	-	-	-	reject ***
DTD Real estate investment funds	-	-	-	no reject	-	-	-	reject ***
DTD Banks	no reject	no reject	reject ***	-	reject ***	reject ***	reject ***	-
Australia								
DTD Assets managers	-	-	-	no reject	-	-	-	reject *
DTD Life insurers	-	-	-	no reject	-	-	-	reject **
DTD Real estate investment funds	-	-	-	no reject	-	-	-	reject ***
DTD Banks	reject ***	reject ***	reject ***	-	reject ***	reject ***	reject ***	-
BRIICS								
DTD Assets managers	-	-	-	no reject	-	-	-	reject ***
DTD Life insurers	-	-	-	no reject	-	-	-	reject ***
DTD Real estate investment funds	-	-	-	no reject	-	-	-	reject **
DTD Banks	no reject	no reject	no reject	-	reject ***	reject ***	reject *	-

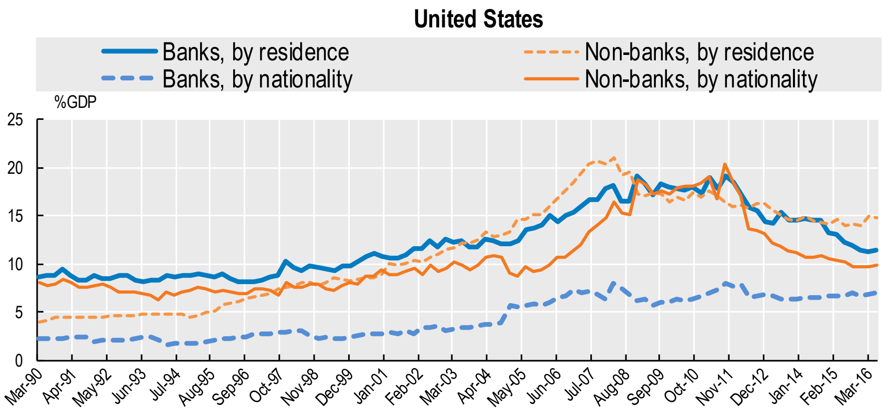
Holdings of Derivatives: Banks vs Shadow Banks (outstanding notional amounts)

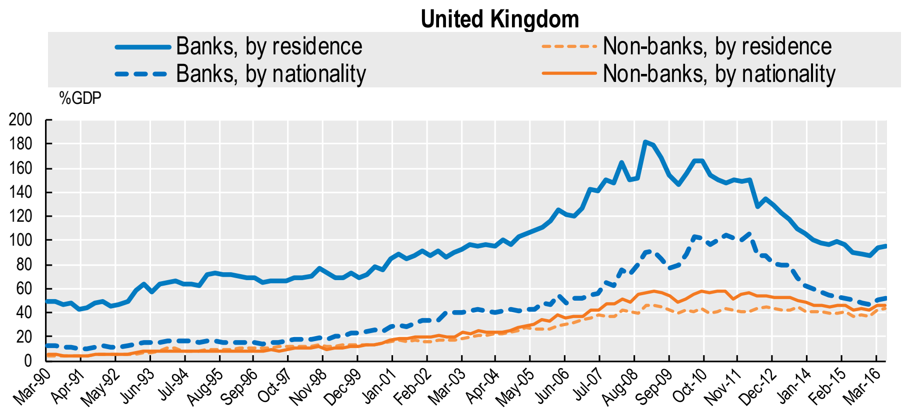


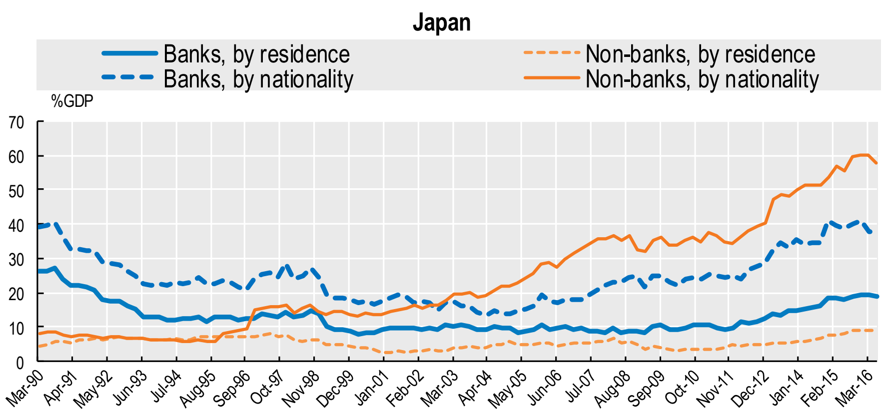
Holdings of Derivatives: Banks vs Shadow Banks (gross market value)

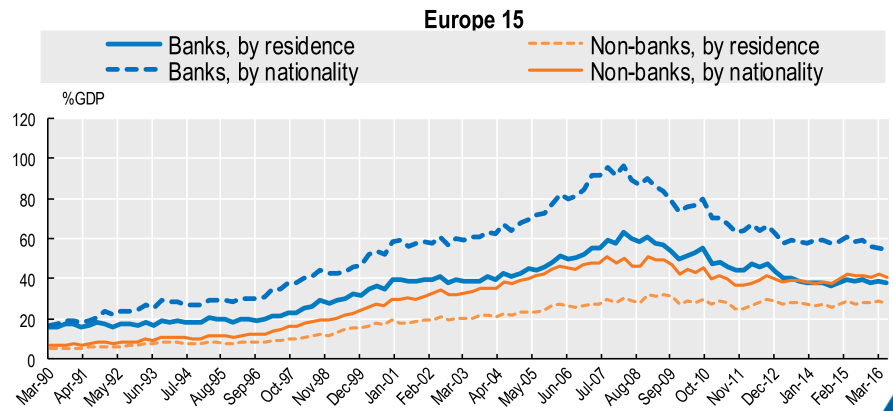


Cross-Border Claims by Nationality or Residence: Banks versus Shadow Banks









Global Primary Securities versus OTC Derivatives