



8 December 2015

Market Risk: Understanding and Managing Tail Events

Scenario 2: Dollar Deposed

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Risk Studies



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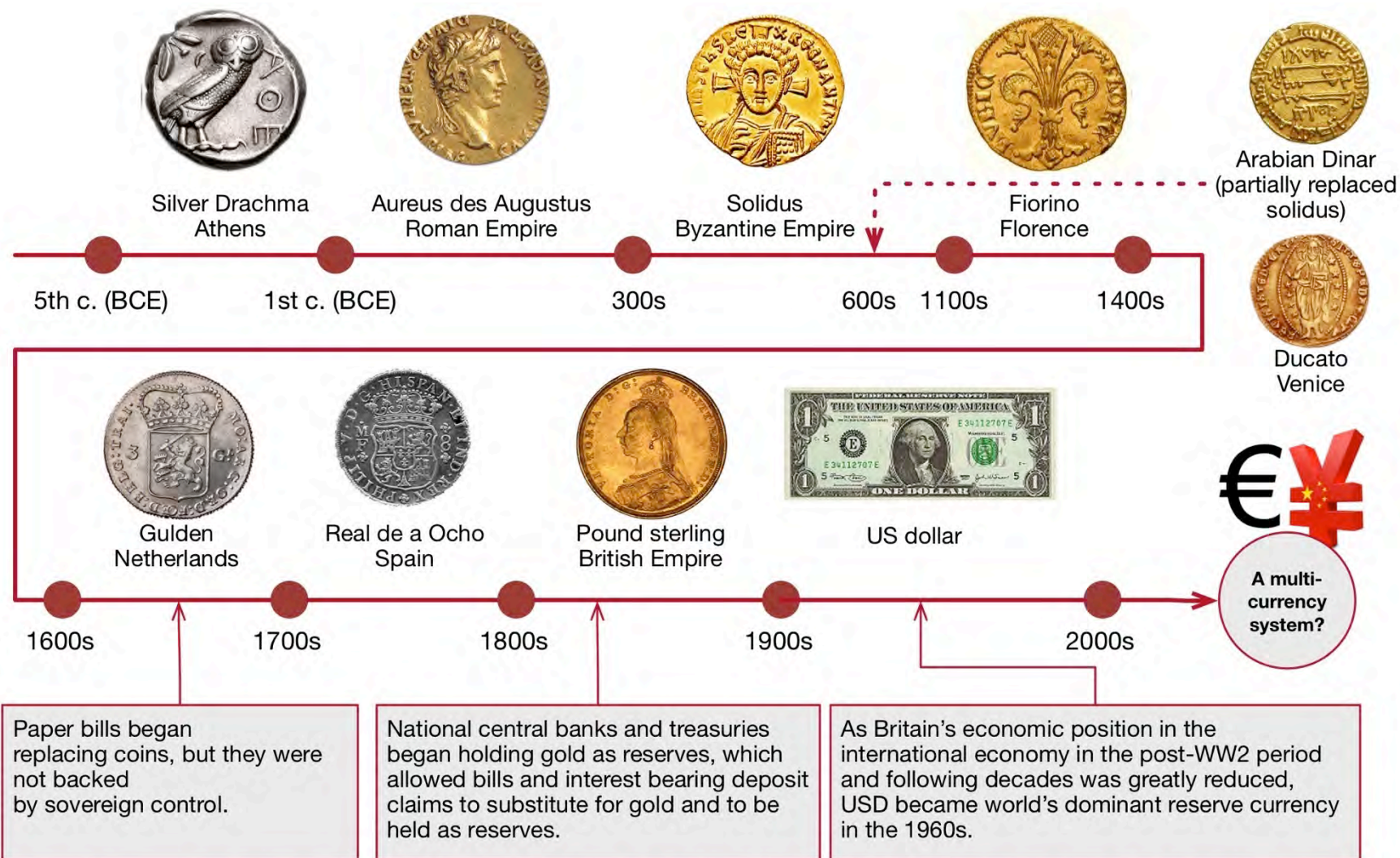
Jay Jung

Risk Researcher
Centre for Risk Studies



OXFORD
ECONOMICS

Reserve currencies don't last forever!



Source: Reconstructed from World Bank, *Global Development Horizon* (2011); Schenk, C.R., *The Decline of Sterling* (2010)

Inclusion RMB to SDR (Nov 30th, 2015)

- The first emerging market currency to be added to the IMF's global currency basket.
- A symbolic recognition of China's importance to the world economy.
- A pat on the back from IMF encouraging China to continue opening up of capital accounts and financial reforms.



“Joining the SDR also means that the international community will have more expectations for China in many financial and economic aspects, so we also feel the burden on our shoulders is heavier.”

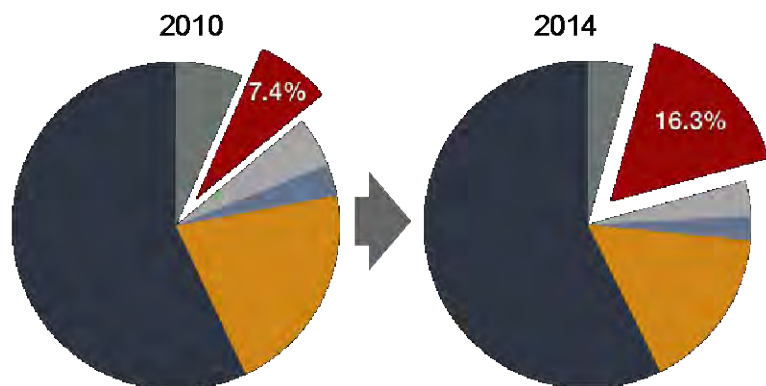
Yi Gang

Deputy Governor, PBoC
Bloomberg report on Dec. 3, 2015



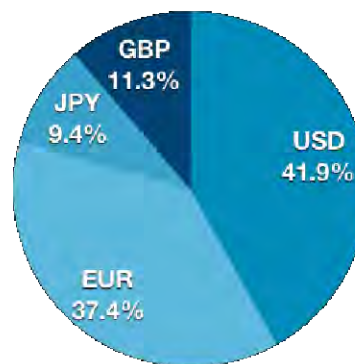
China's contribution to global economy

China's % of World GDP

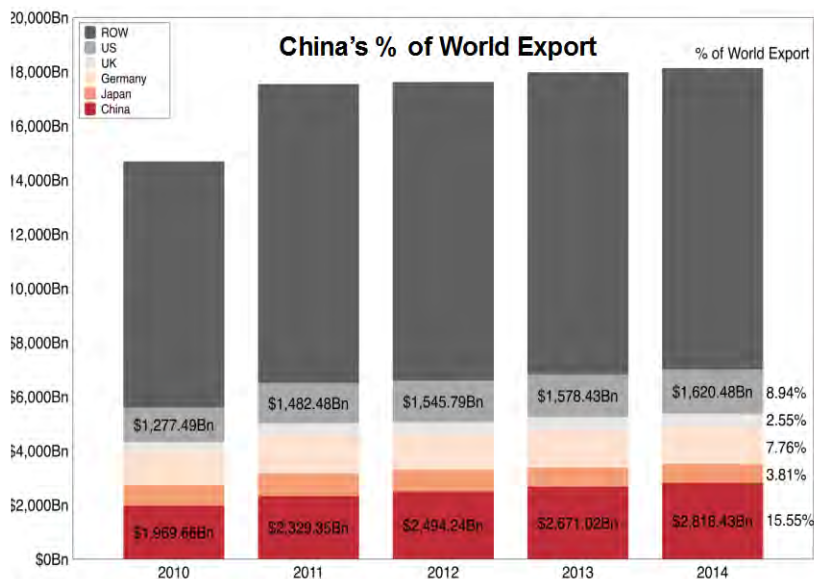
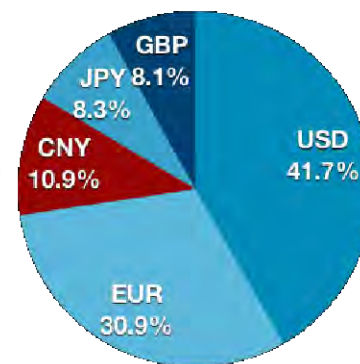


RMB's Inclusion to SDR

Current SDR Basket

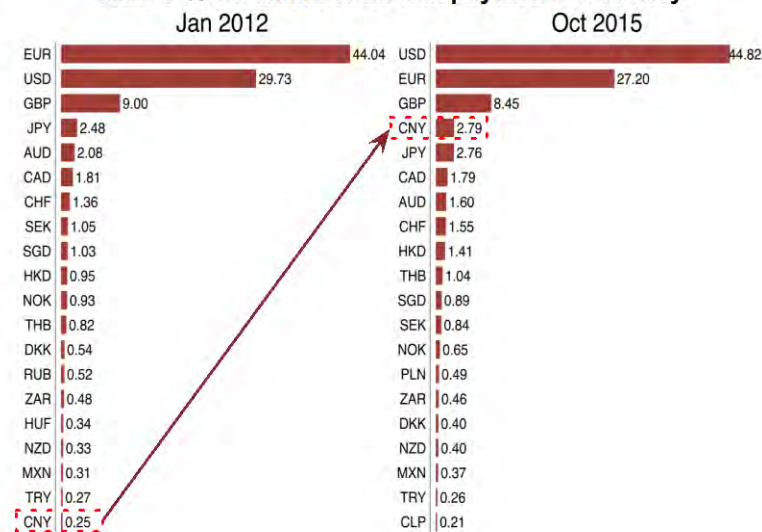


New SD basket

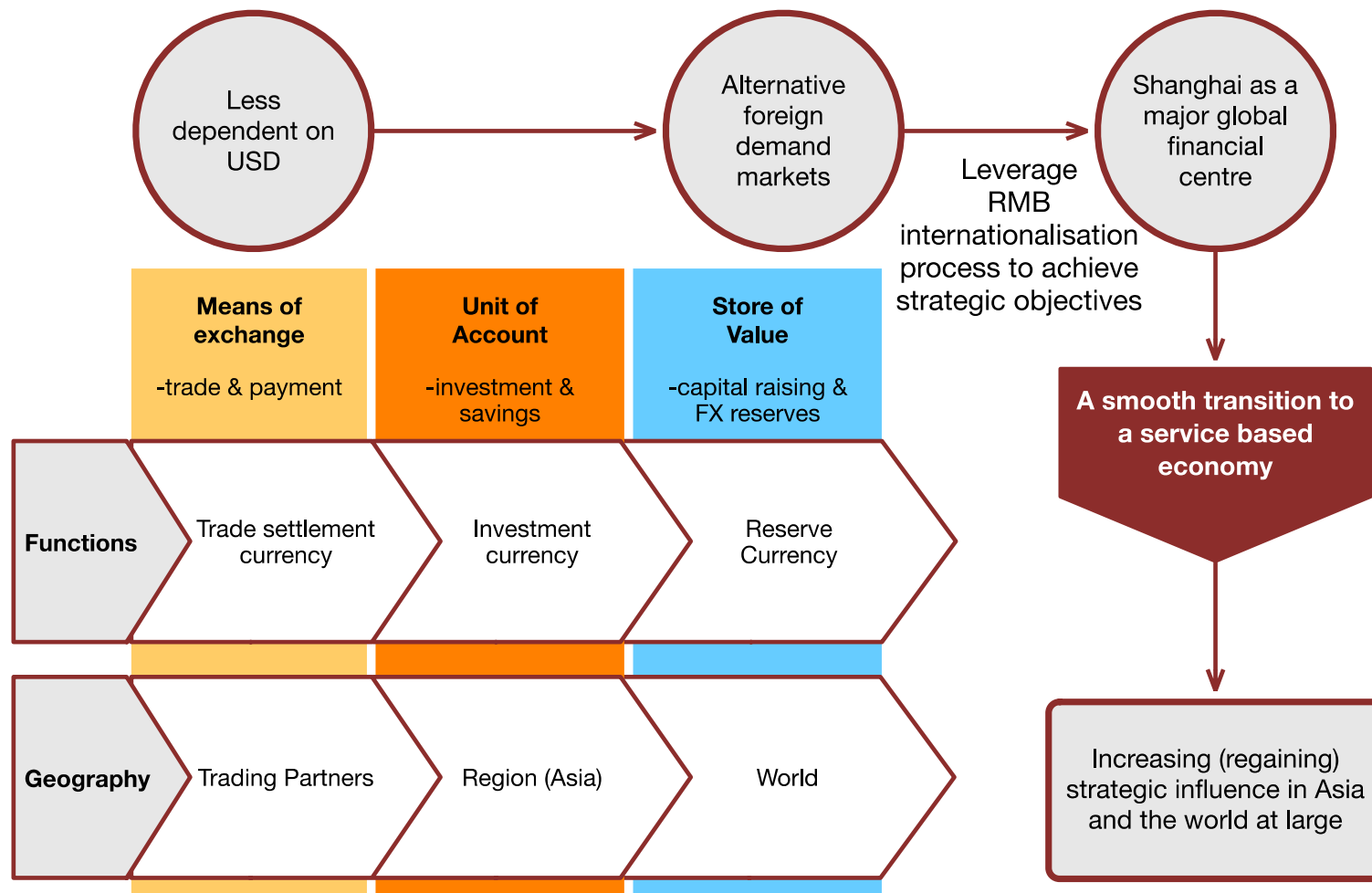


Source: IMF; IMF DOTS; SWIFT and CRS research

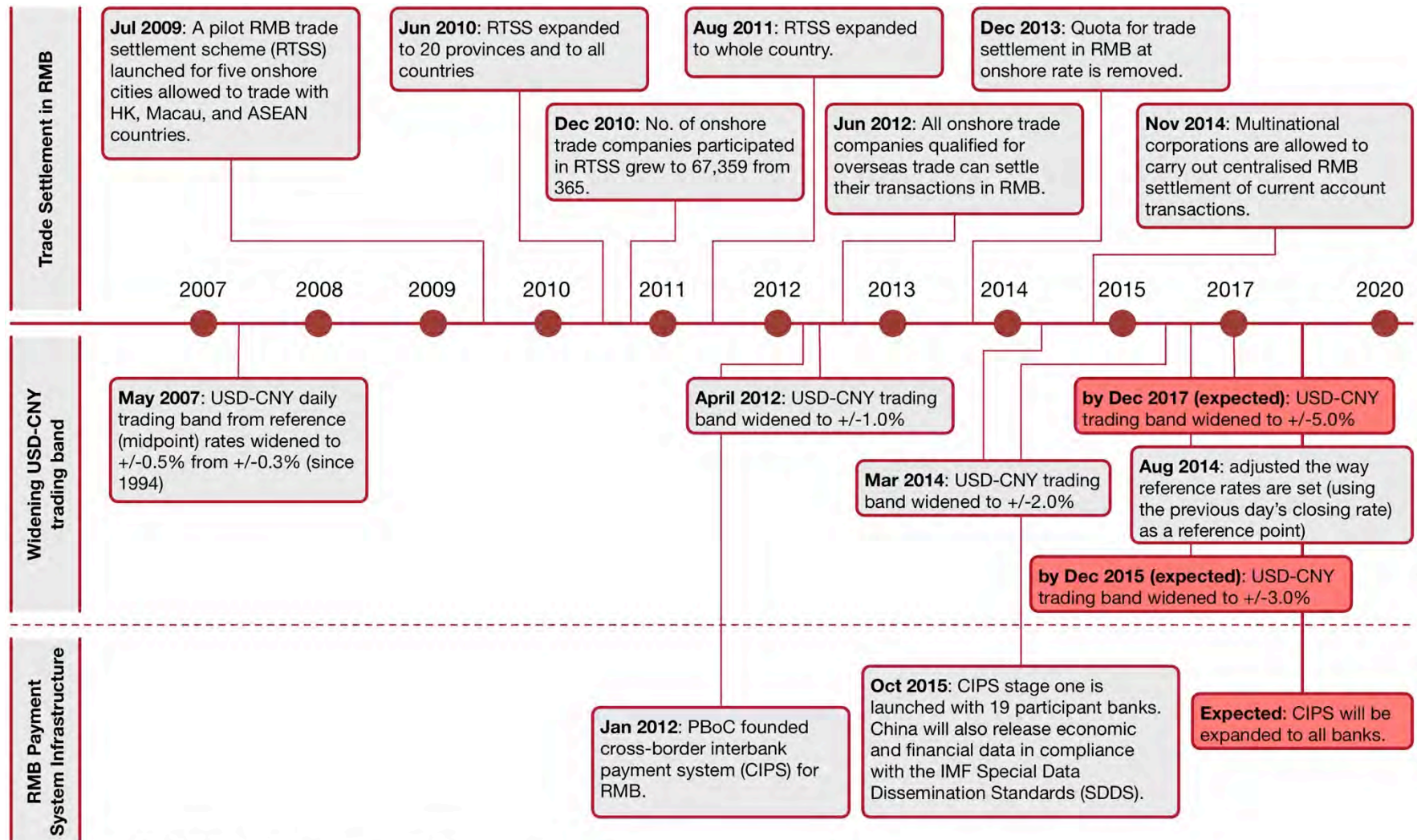
RMB's % as an international payments currency



China's RMB internationalization strategy roadmap

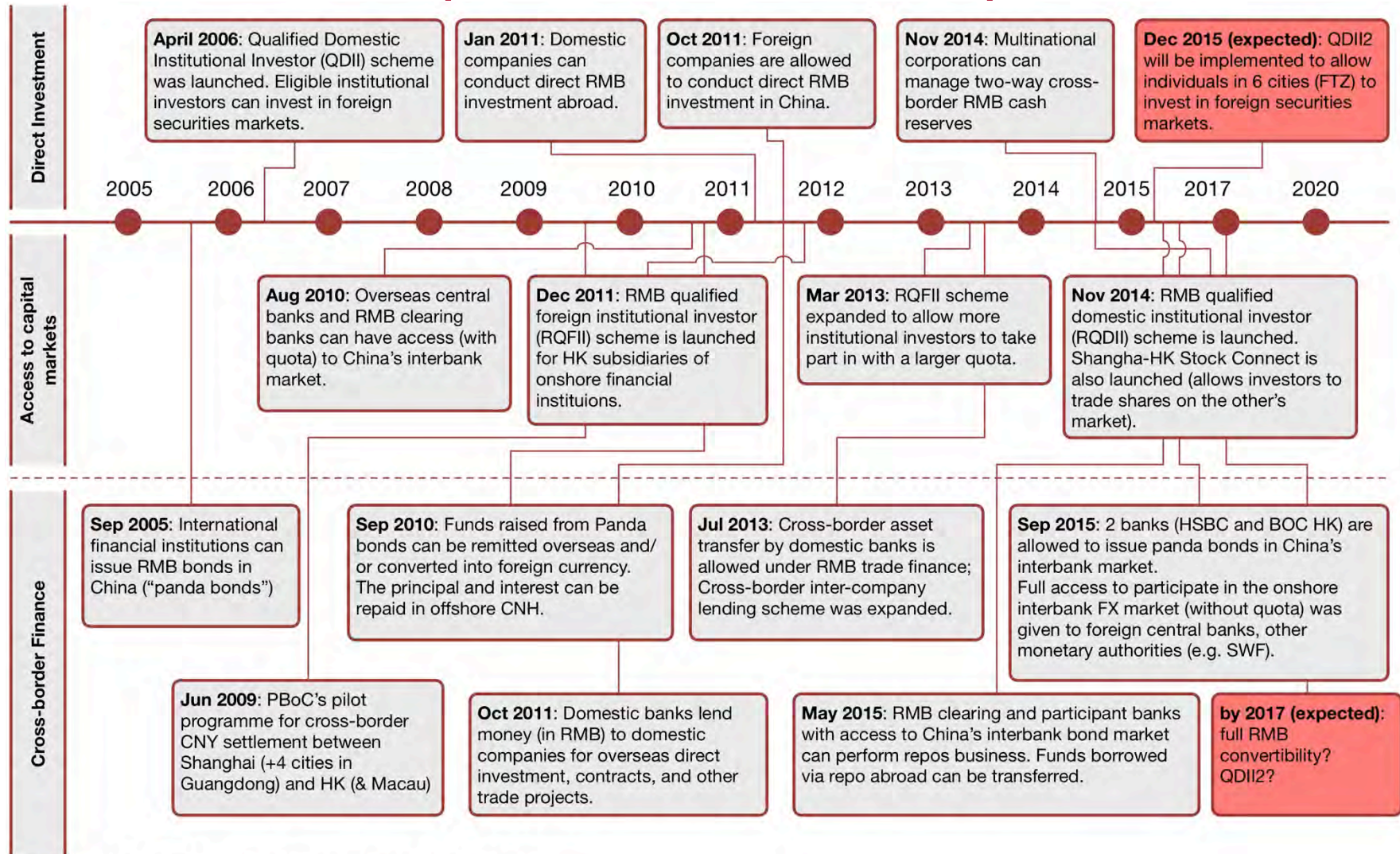


Implementation of RMB Internationalization (trade settlement)



Source: PBoC, SAFE, media reports, and CRS research

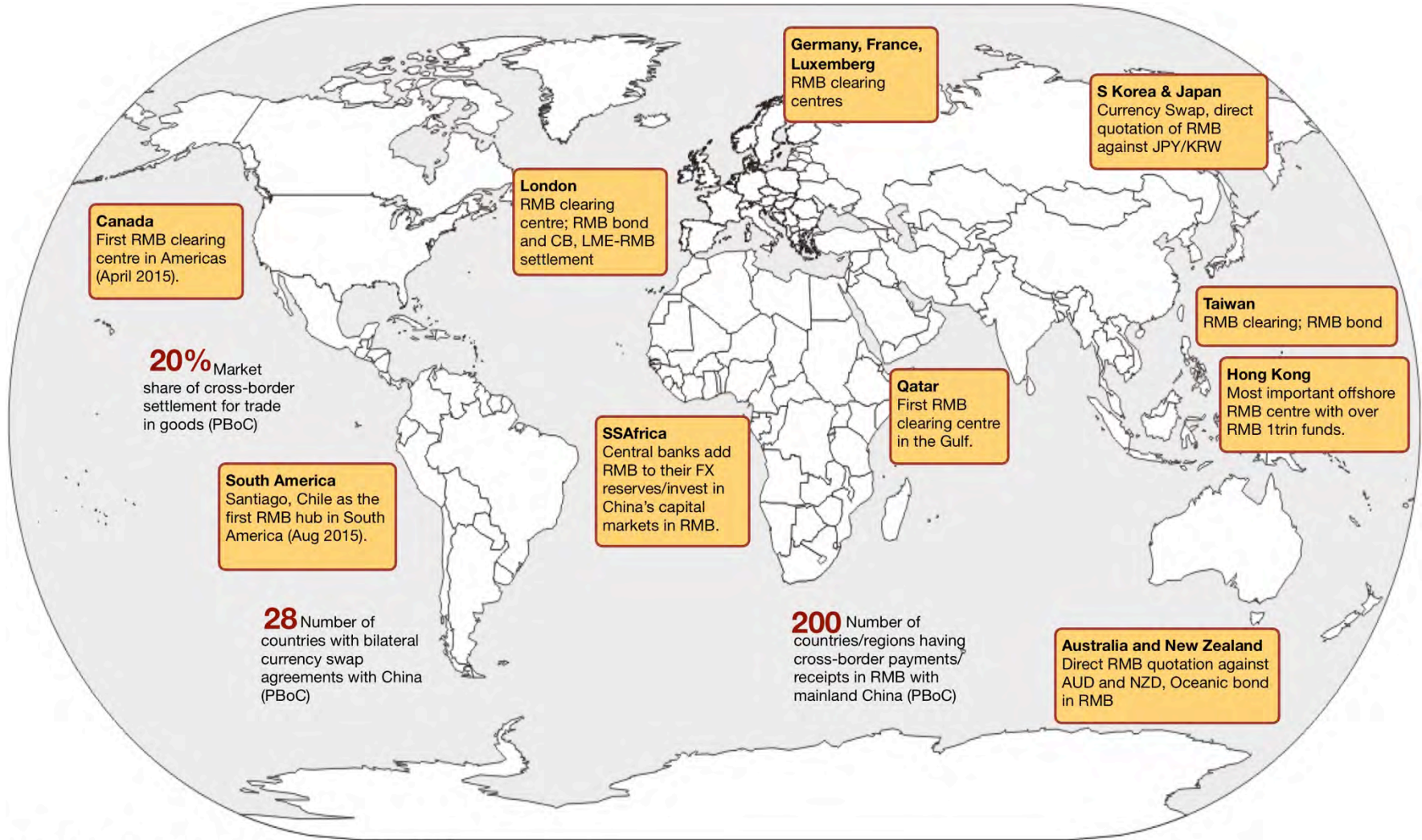
Implementation of RMB Internationalization (investment & finance)



Source: PBoC, SAFE, media reports, and CRS research

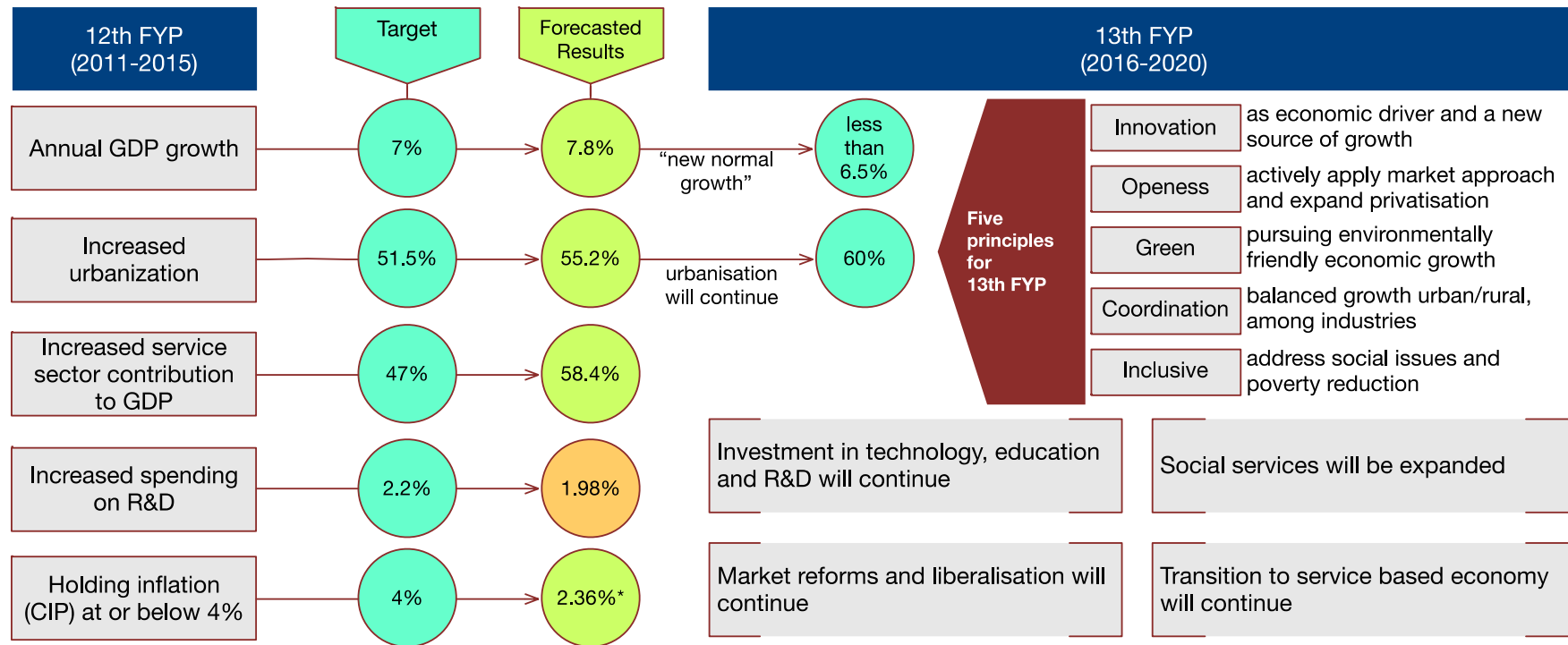
Gradual, incremental and progressive changes

RMB's global expansion



Source: PBoC, BOC, media reports, and CRS research

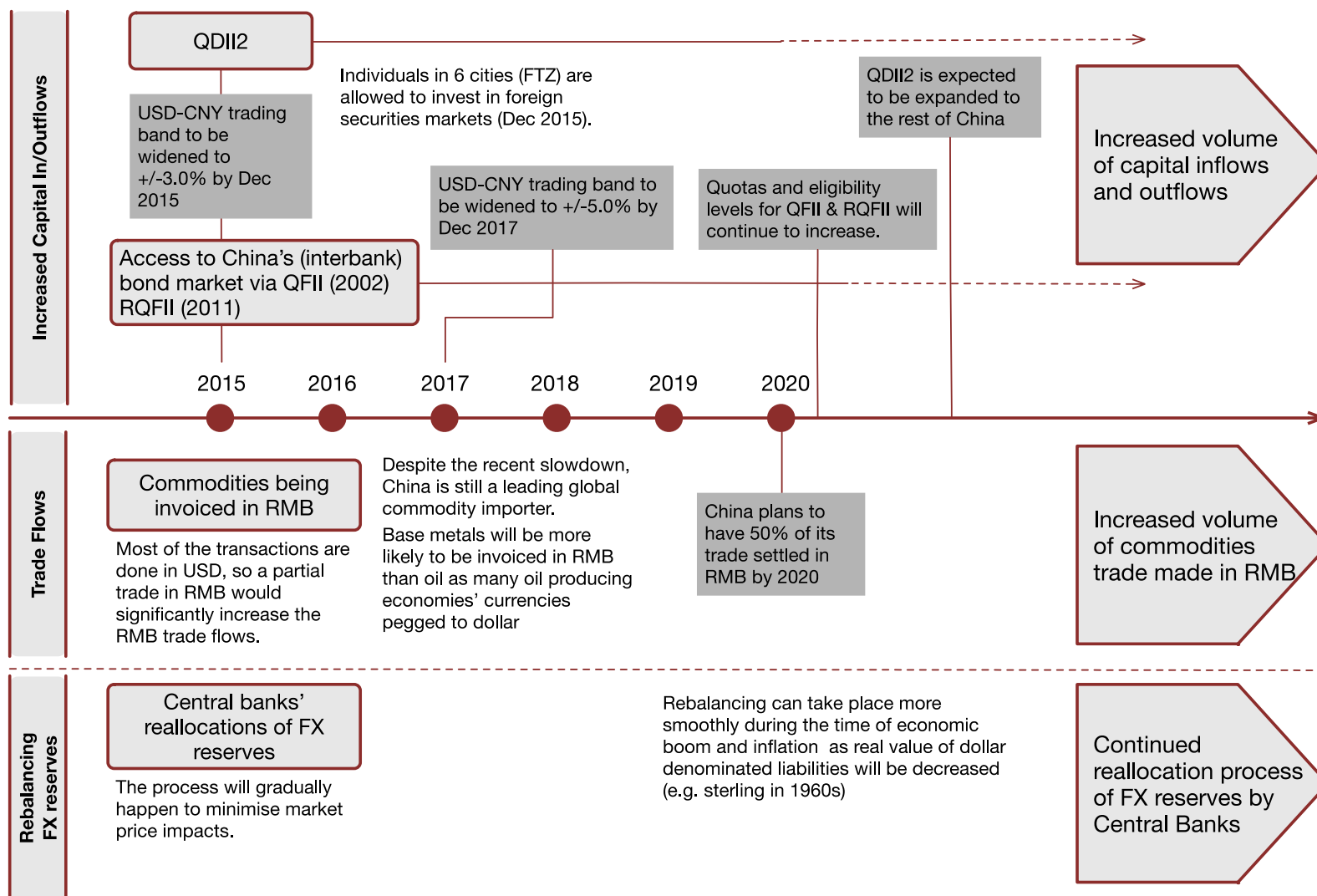
China's 12th & 13th 5 Year Plan (FYP)



*5 year average

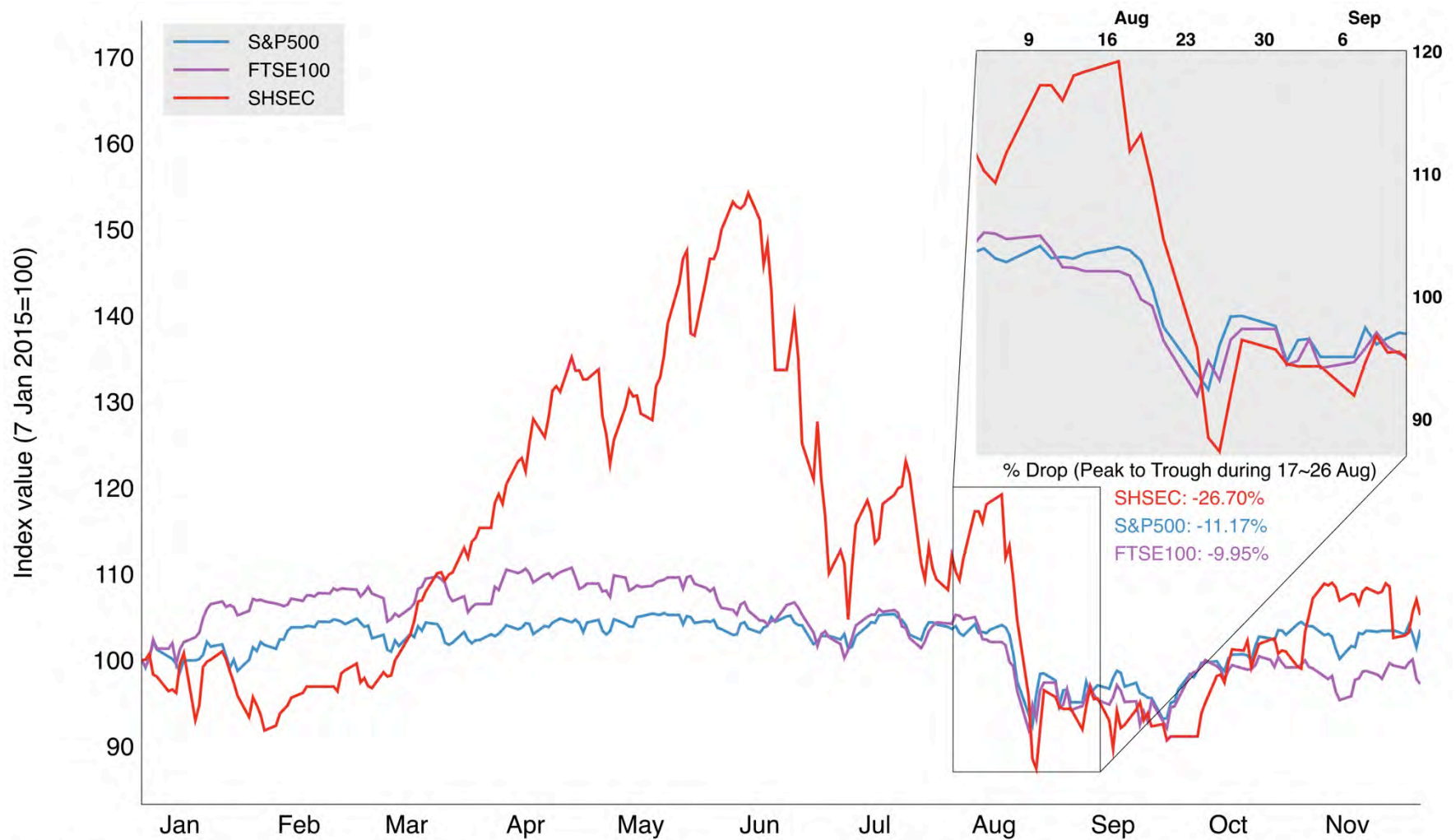
Source: PBoC, BOC, BBVA, media reports, and CRS research

Key Events in the RMB internationalization process



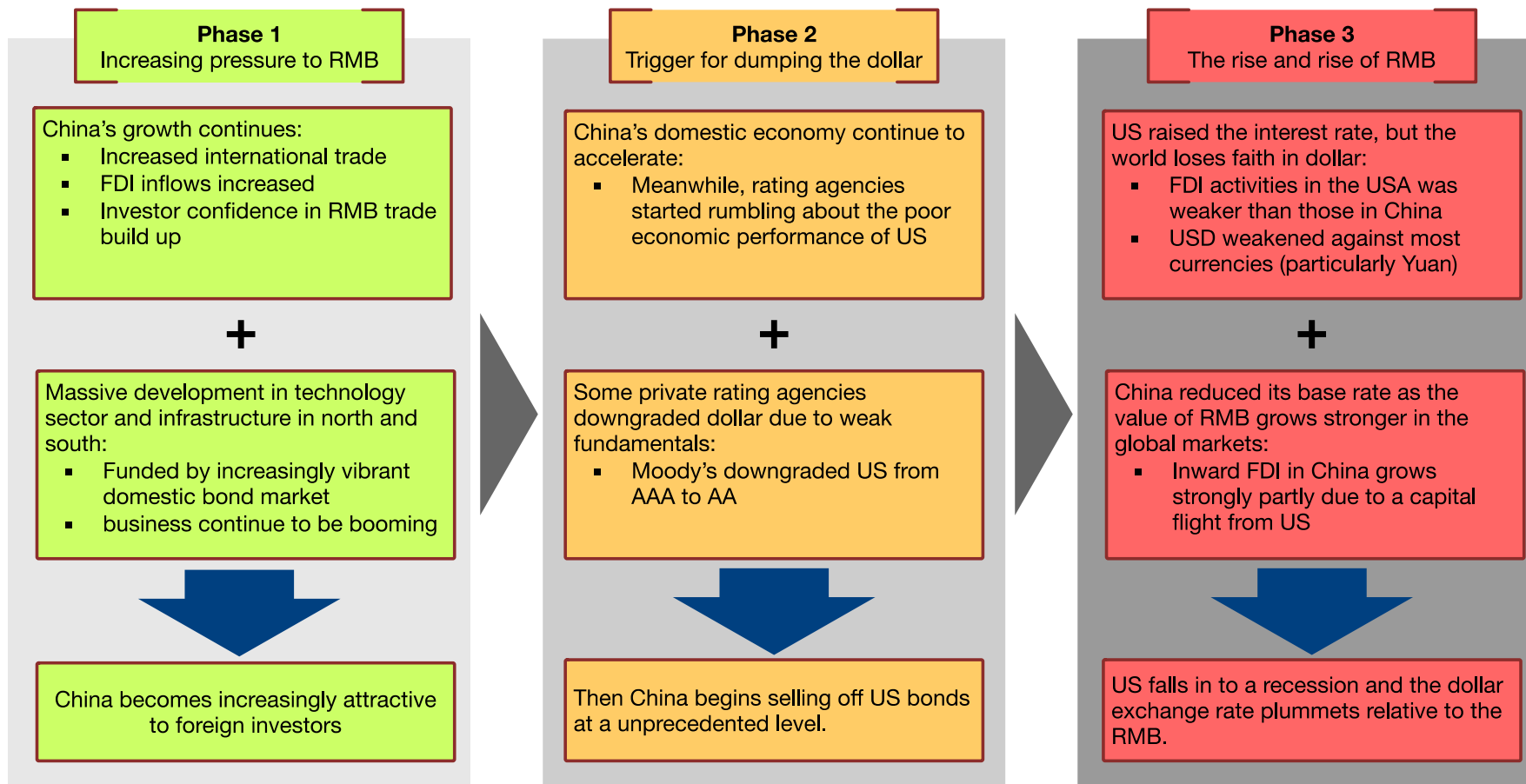
Source: PBoC, BOC, BBVA, media reports, and CRS research

Events in China can have global implications



Source: Bloomberg, CRS research

Stress-test Scenario Summary



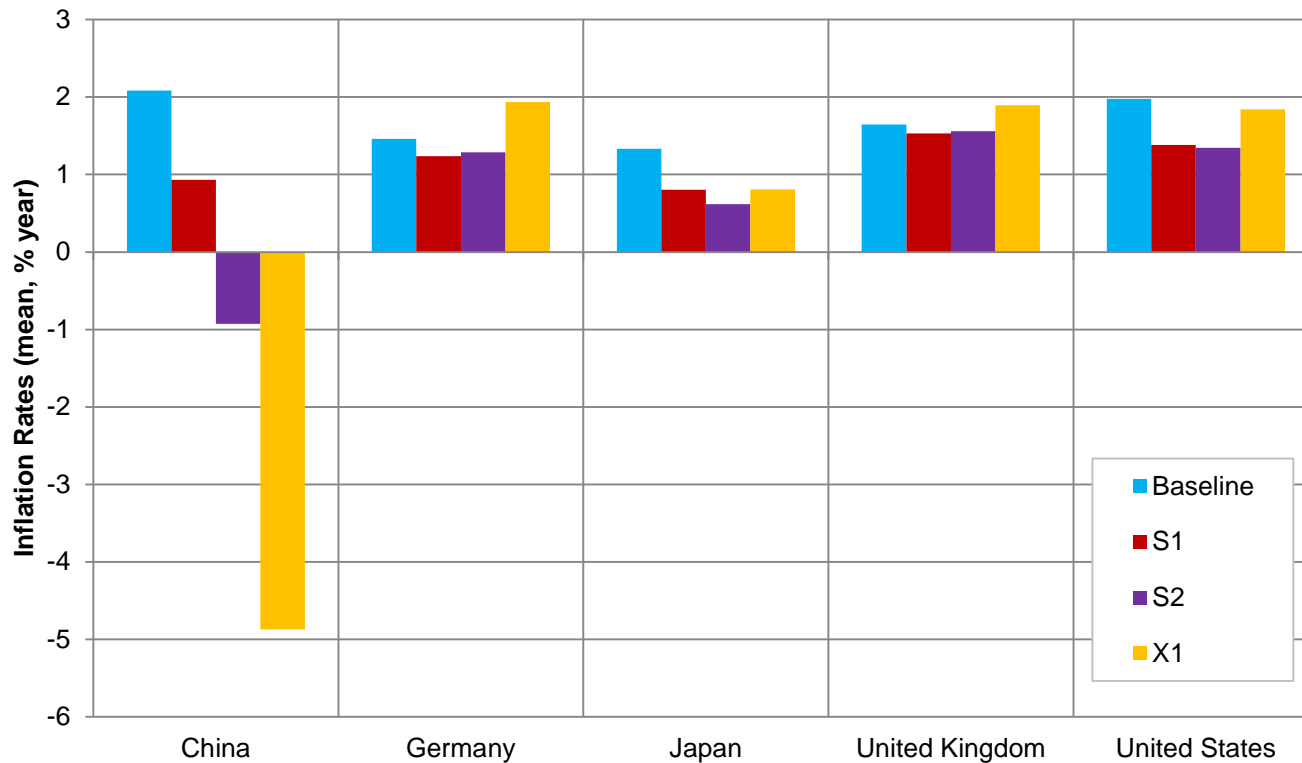
Input Variables to Scenario Global Economic Model

S/N	Input Variable	Scenario Variants			Max. Shock duration applied
		S1	S2	X1	
1	Bond Market Stress				
	United States	5%	8%	12%	4 Qtrs
2	Short-term Interest Rate				
	United States	4%	6%	8%	4 Qtrs
3	Currency Exchange Rate [^]				
	China	10%	25%	50%	5 yrs
	Other countries [#]	2%	5%	10%	5 yrs

[#]Other currencies: The Eurozone, UK, Japan, Australia, Indonesia, South Africa, Argentina, Brazil, Malaysia, Thailand, Philippines, Singapore, S Korea, Taiwan, Hong Kong, Canada, Chile, Russia, and India

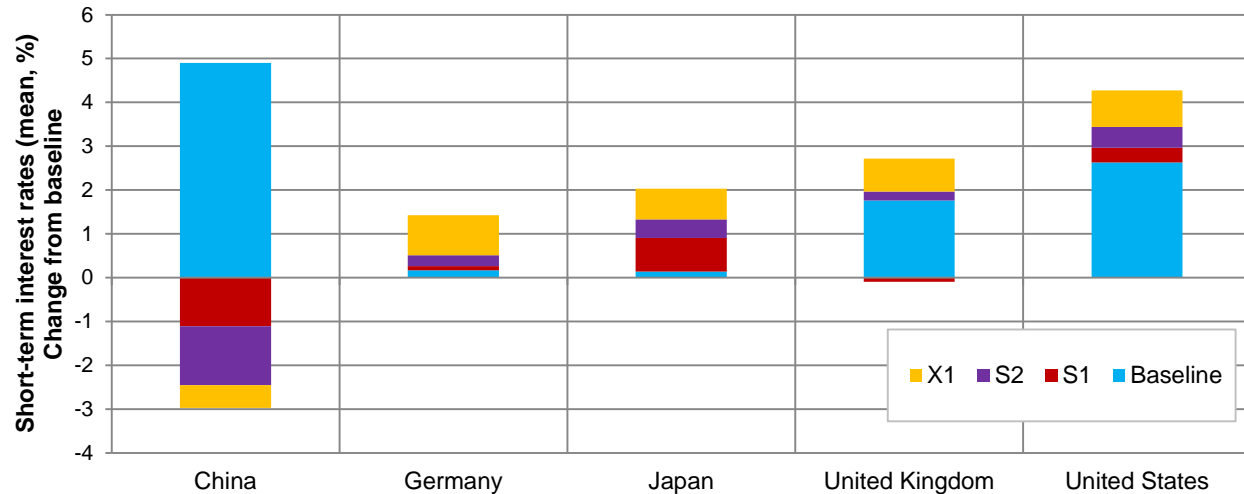
Macroeconomic Impacts by Country (Dollar Deposited)

Average inflation
rates (%) comparison

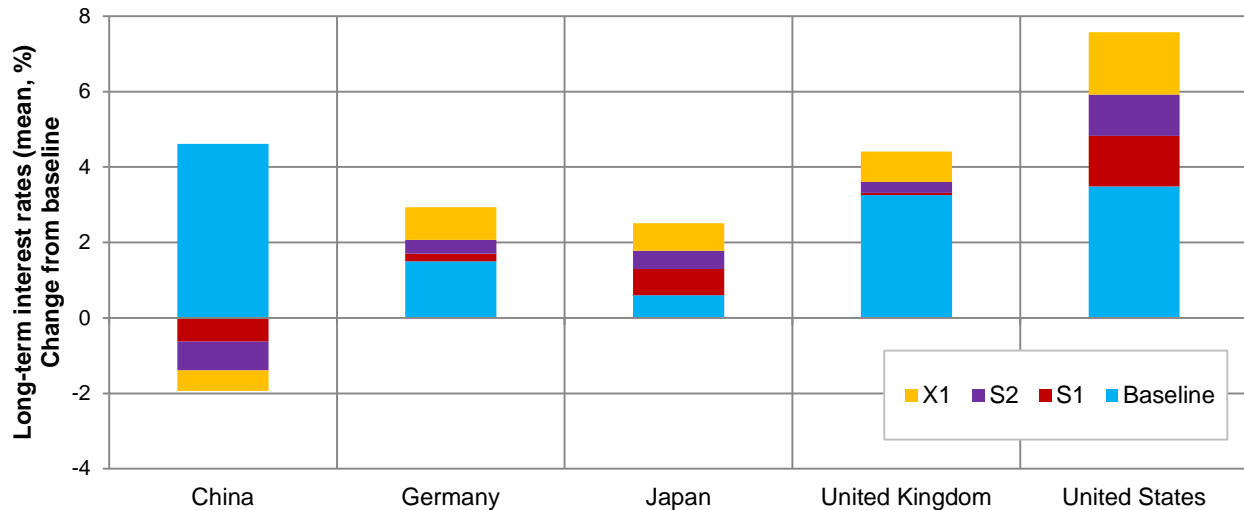


Macroeconomic Impacts by Country (Dollar Deposited)

**Average short-term
interest rate increase**

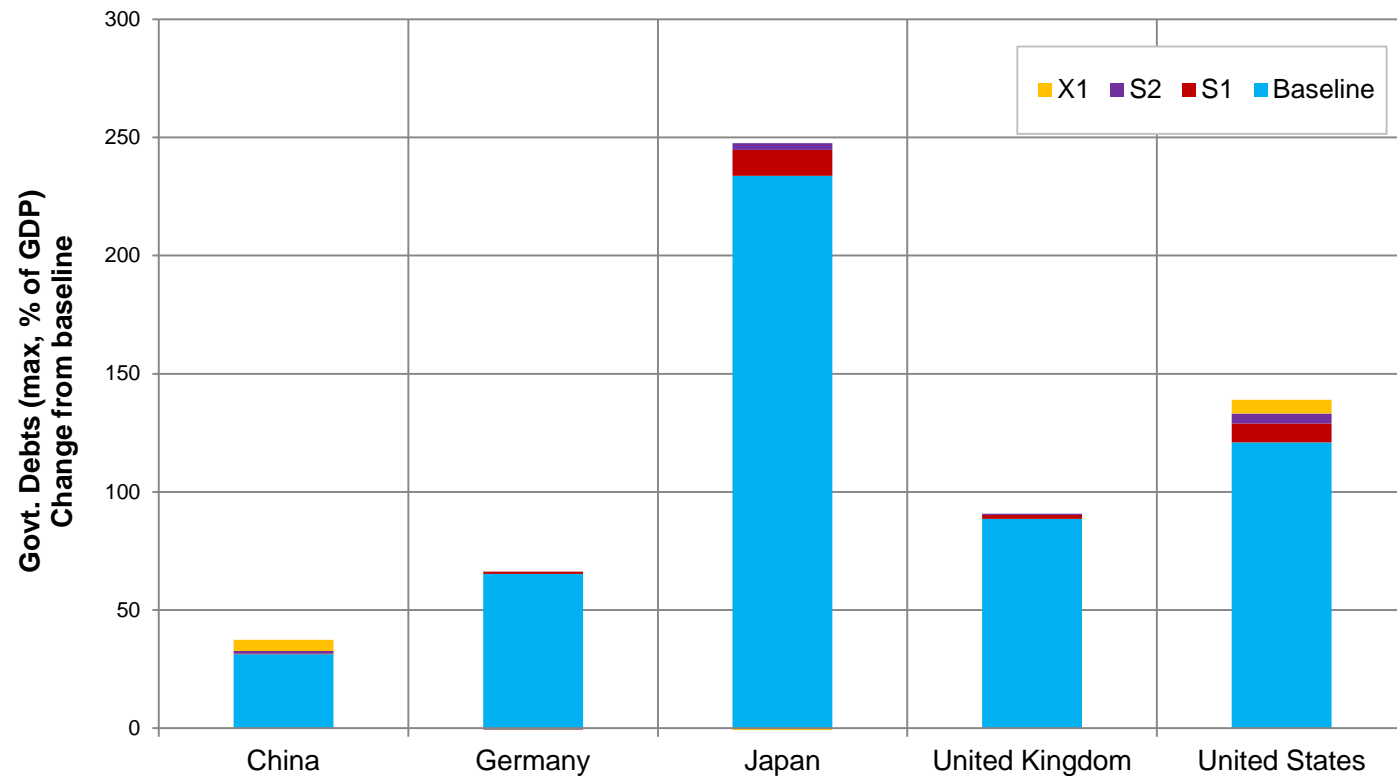


**Average long-term
interest rate increase**



Macroeconomic Impacts by Country (Dollar Deposited)

Maximum government debt increase



Macroeconomic Impacts by Country (Dollar Deposited)

Location	Minimum Credit Rating			
	Baseline	S1	S2	X1
China	AA	AA	AA	BBB
Germany	AAA	AAA	AAA	AAA
Japan	AA	BBB	BBB	BBB
United Kingdom	AAA	AAA	AAA	AAA
United States	AAA	AAA	AA	AA

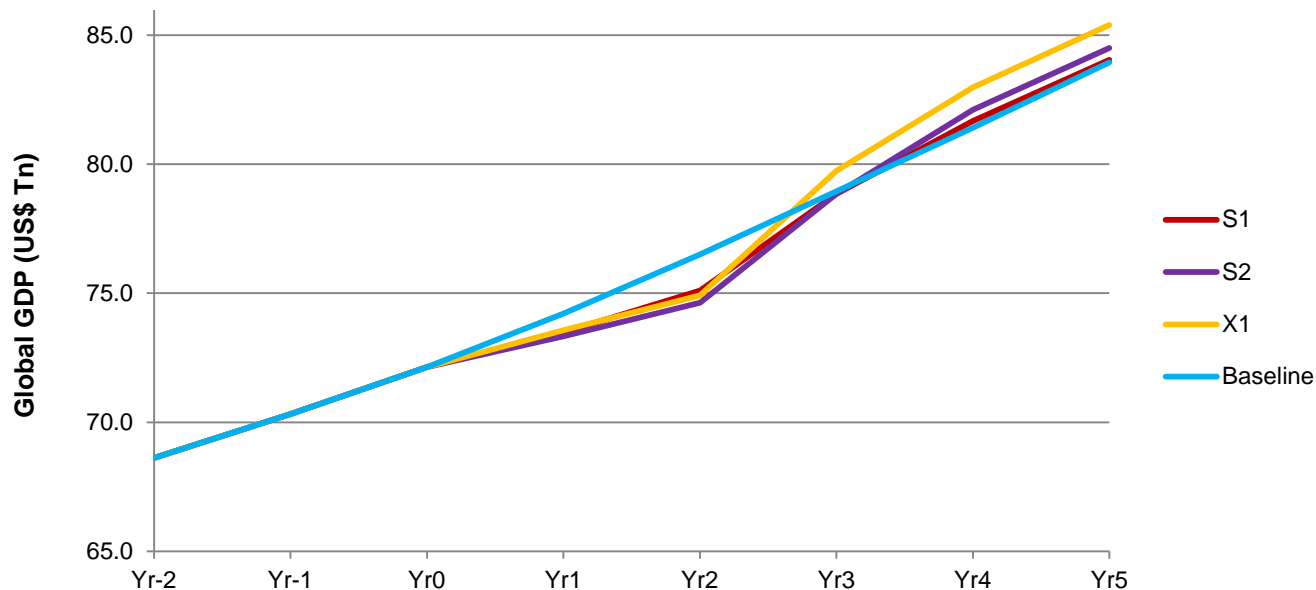
Global Macroeconomic Impacts (Dollar Deposed)

Global and Country-Specific Recession Severity

Country/ Region	Minimum Annual GDP Growth Rate (% Qtr)				Worst Recession Duration	Recession Variant(s)
	Baseline	S1	S2	X1		
China	5.3	3.5	0.5	-6.0	2 Qtrs	X1
Germany	1.0	0.9	0.8	0.3	N/A	
Japan	-1.2	-1.4	-1.4	-1.2	2 Qtrs	S2
United Kingdom	2.2	1.5	1.3	1.0	N/A	
United States	2.7	-2.5	-4.6	-5.7	4 Qtrs	S1, S2, X1
World	2.7	0.7	-0.3	-0.8	N/A	

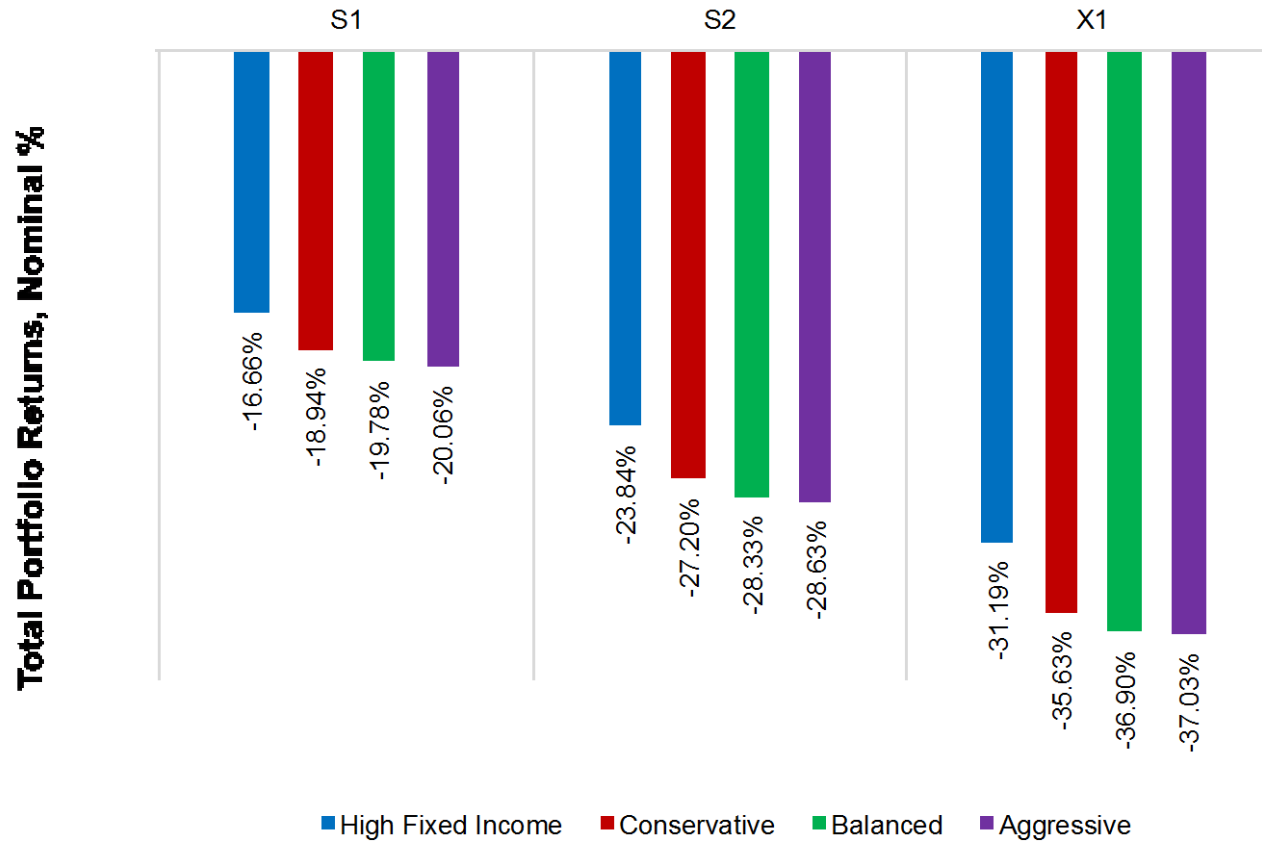
Global Macroeconomic Impacts: GDP@Risk (Dollar Deposed)

Location	5-Year GDP (US\$ Tn)	S1		S2		X1	
		GDP@Risk (US\$ Tn)	GDP@Risk (%)	GDP@Risk (US\$ Tn)	GDP@Risk (%)	GDP@Risk (US\$ Tn)	GDP@Risk (%)
China	48.4	-0.4	-0.8%	-0.9	-1.8%	-1.5	-3.1%
Germany	19.1	0.0	0.1%	0.0	-0.2%	-0.2	-1.1%
Japan	29.3	0.2	0.8%	0.2	0.6%	-0.2	-0.8%
UK	14.0	0.0	0.1%	0.0	0.0%	-0.1	-0.8%
US	88.9	1.5	1.7%	2.1	2.4%	2.3	2.6%
World	395.0	1.9	0.5%	1.6	0.4%	-1.6	-0.4%



Portfolio Performance Comparison

Dollar Deposited Scenario Max Downturn by Portfolio Structures (Nominal %)



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