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Financial Crisis
What do we know?

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IESE

Global

Propagation of the Financial Crisis

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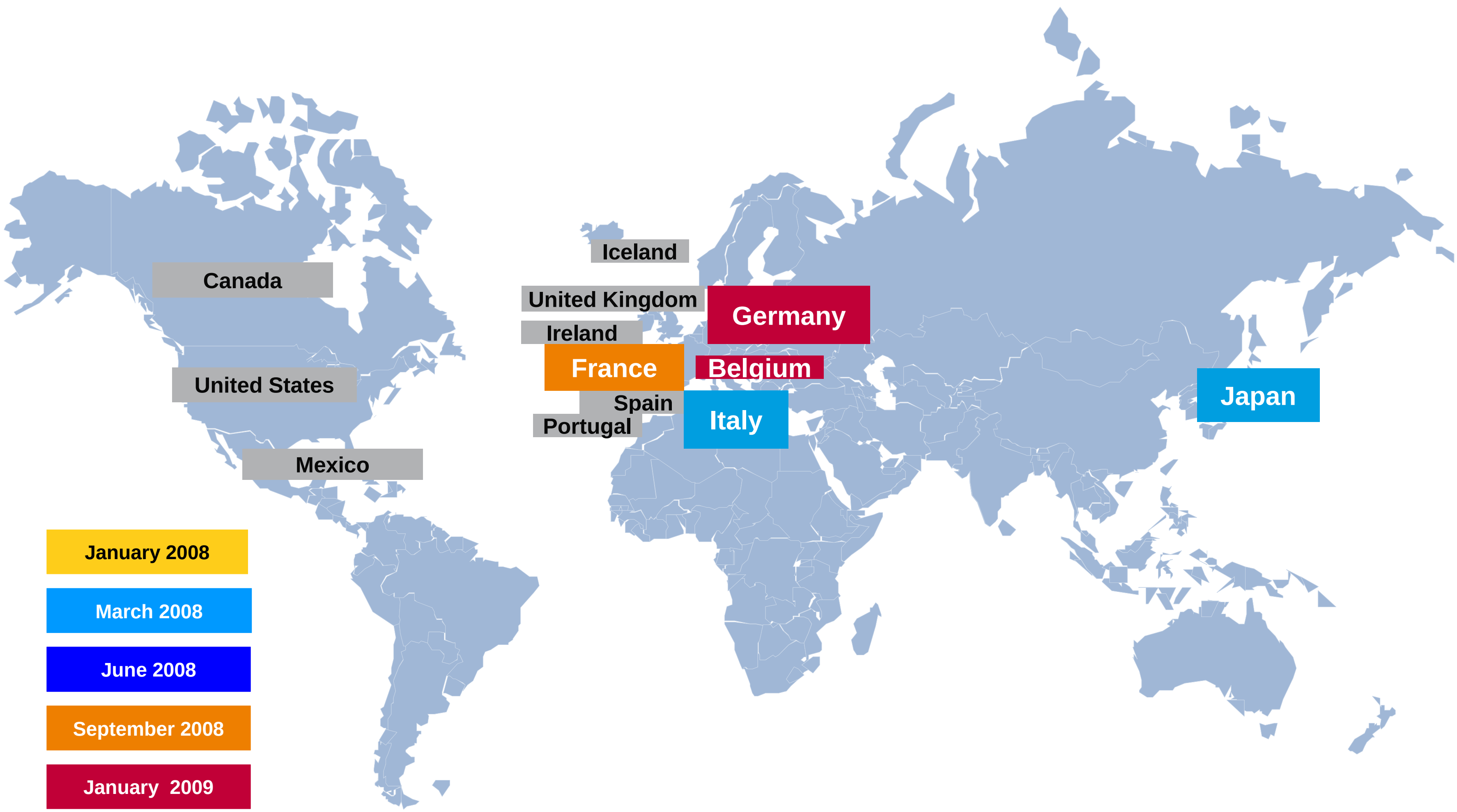
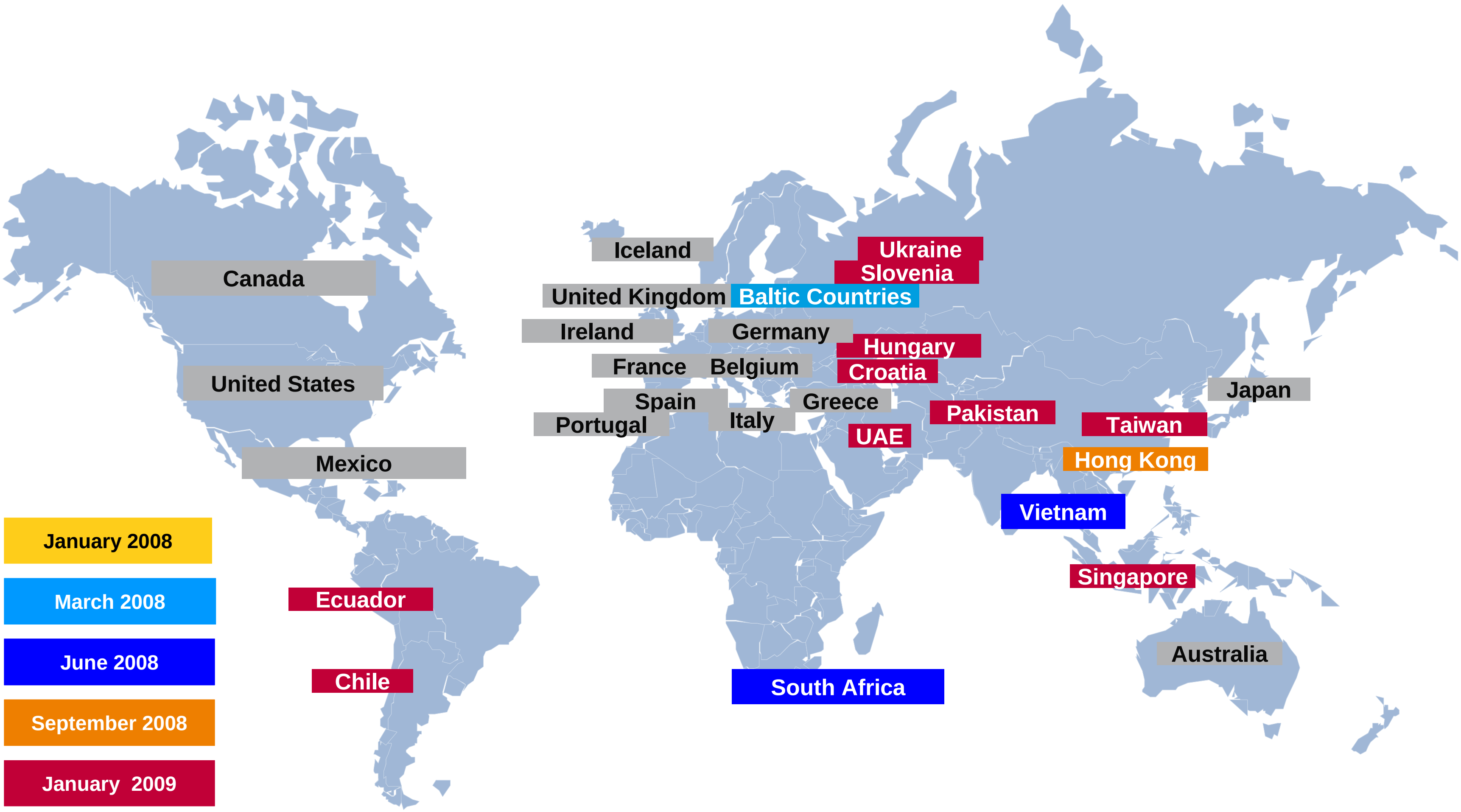
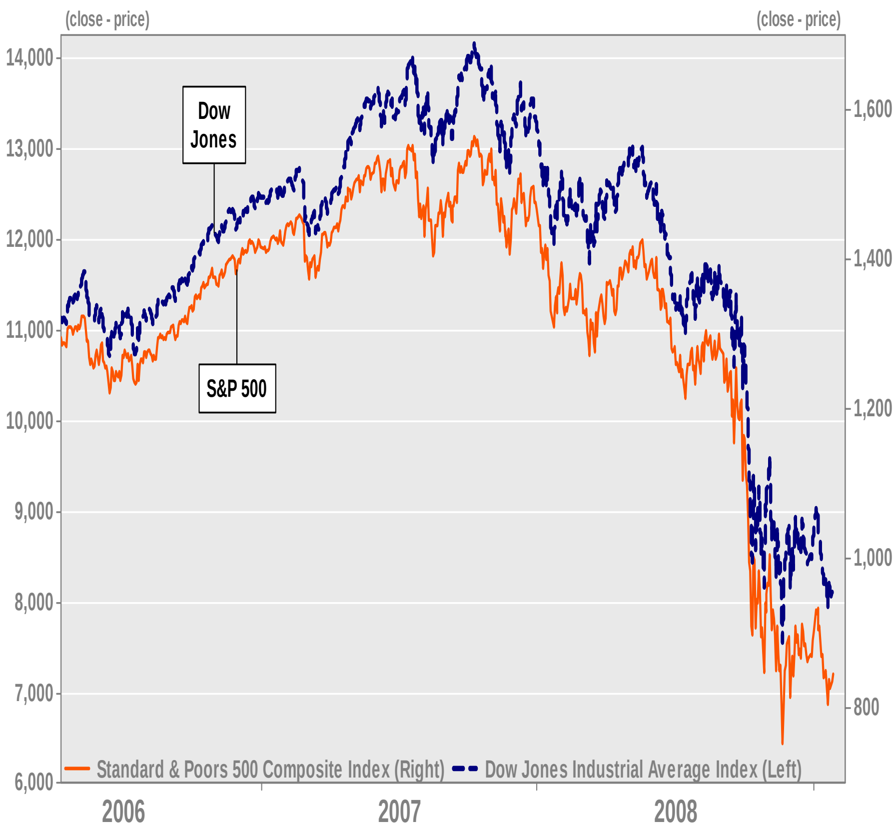


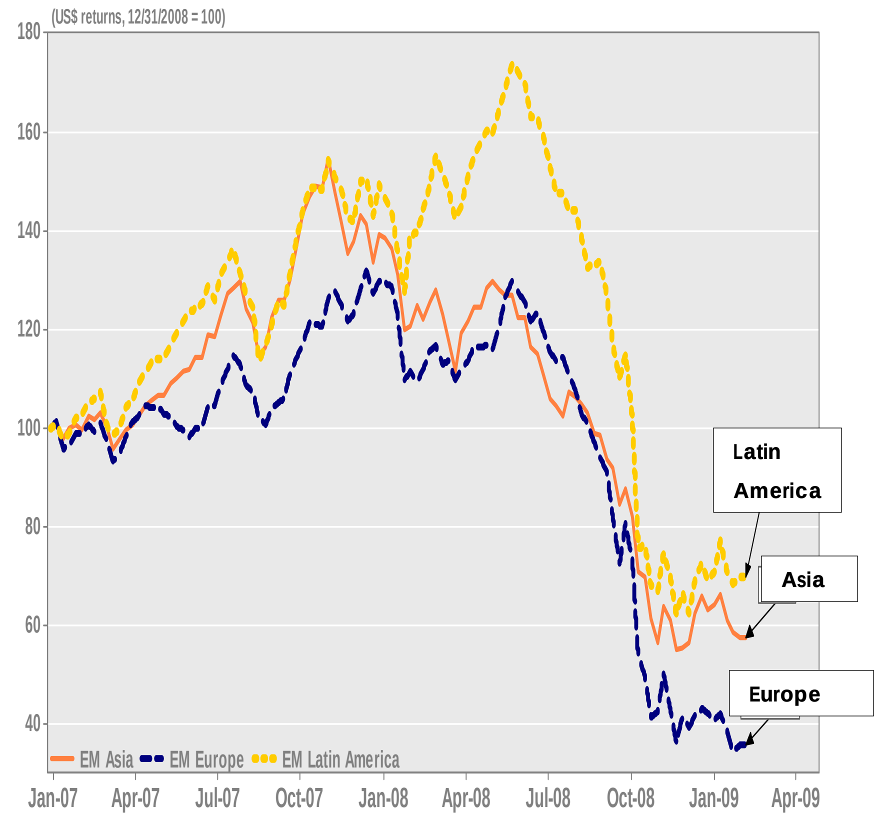
Propagation of the Financial Crisis



Propagation of the Financial Crisis

Global Equity Markets





Source: Bloomberg, Market Data, Last Update Jan 27 2009

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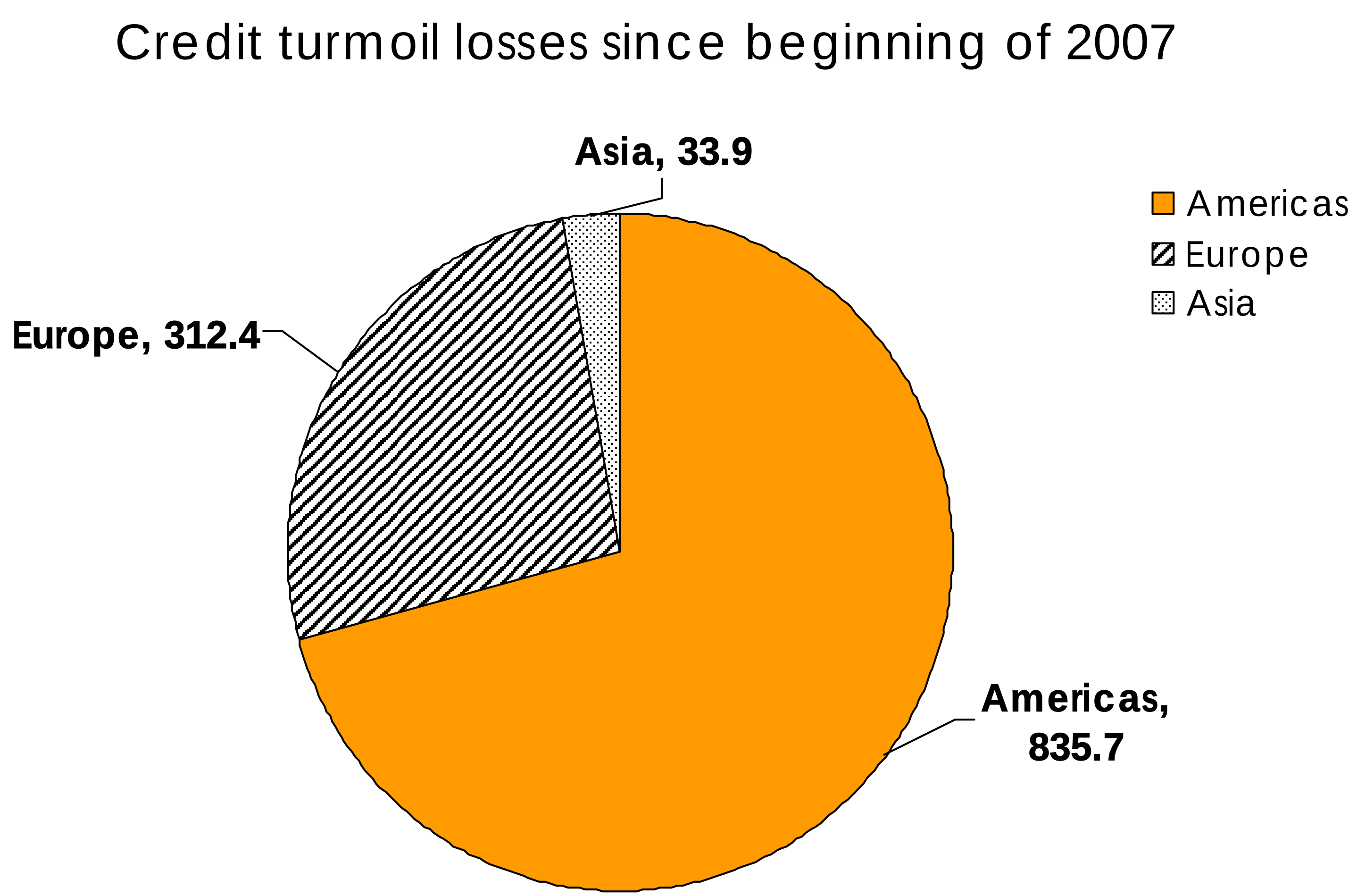
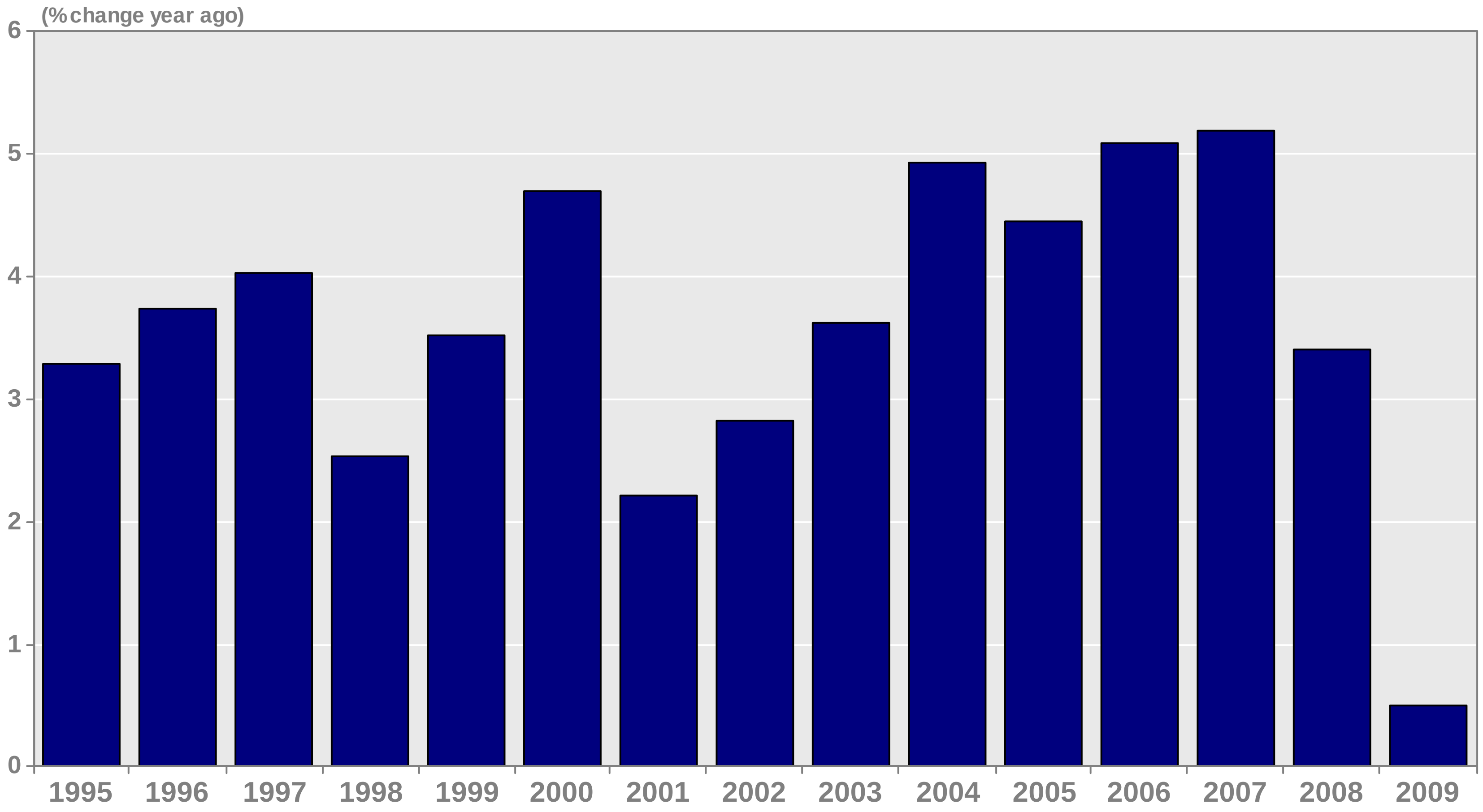
Credit Market Losses: All Financials (bill. Usd)



Source: Bloomberg, Quarterly, Last update March 2 , 2009

Global GDP Growth (%)



Source: IMF, av. Annual growth rates, last update Jan 28 2009, WEO (2008 Estimate, 2009 forecast)

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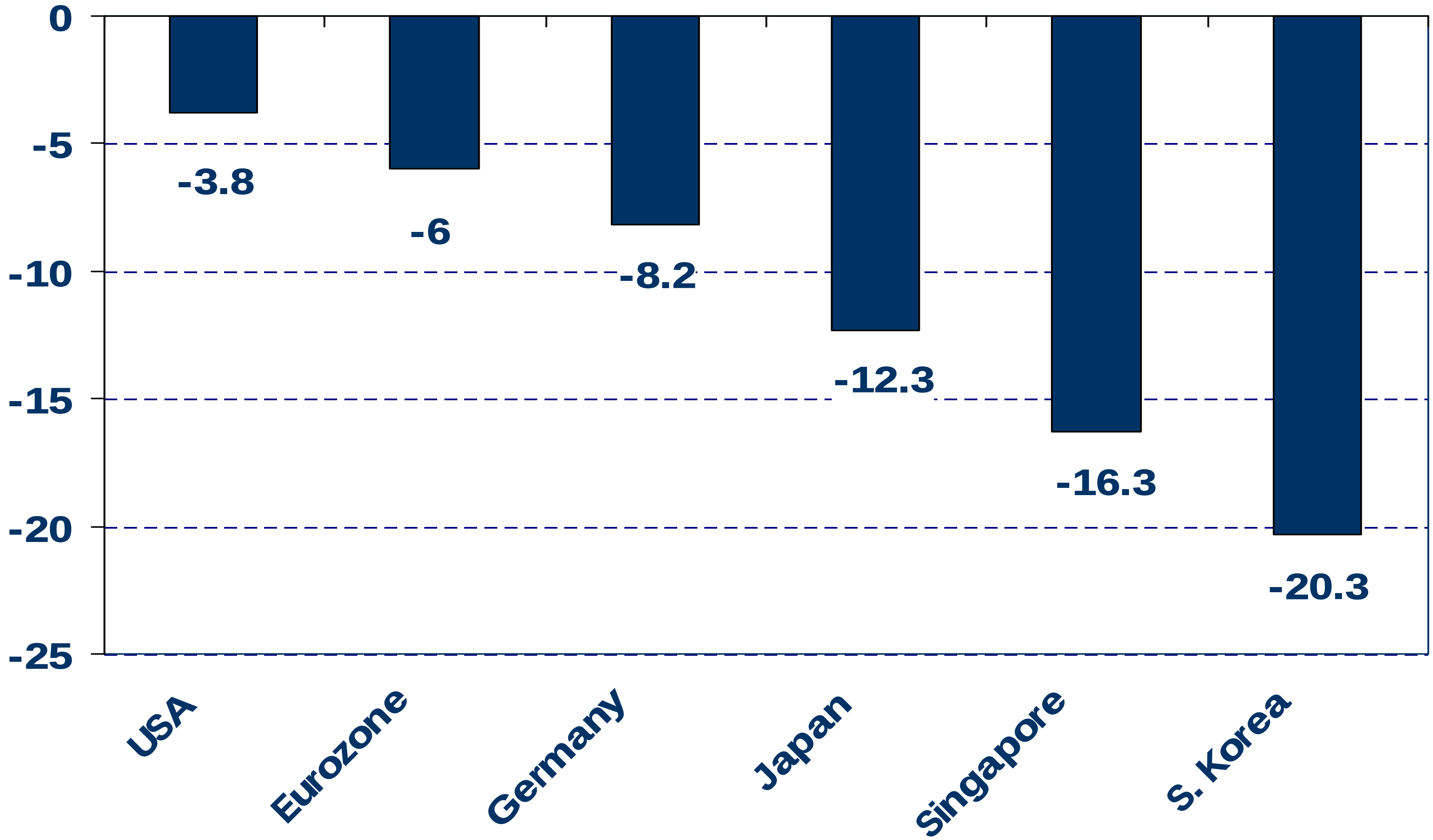
Real GDP Growth last quarter 2008

% Last quarter at annual rate



Source: RGE

IMF's Financial Packages since September 2008

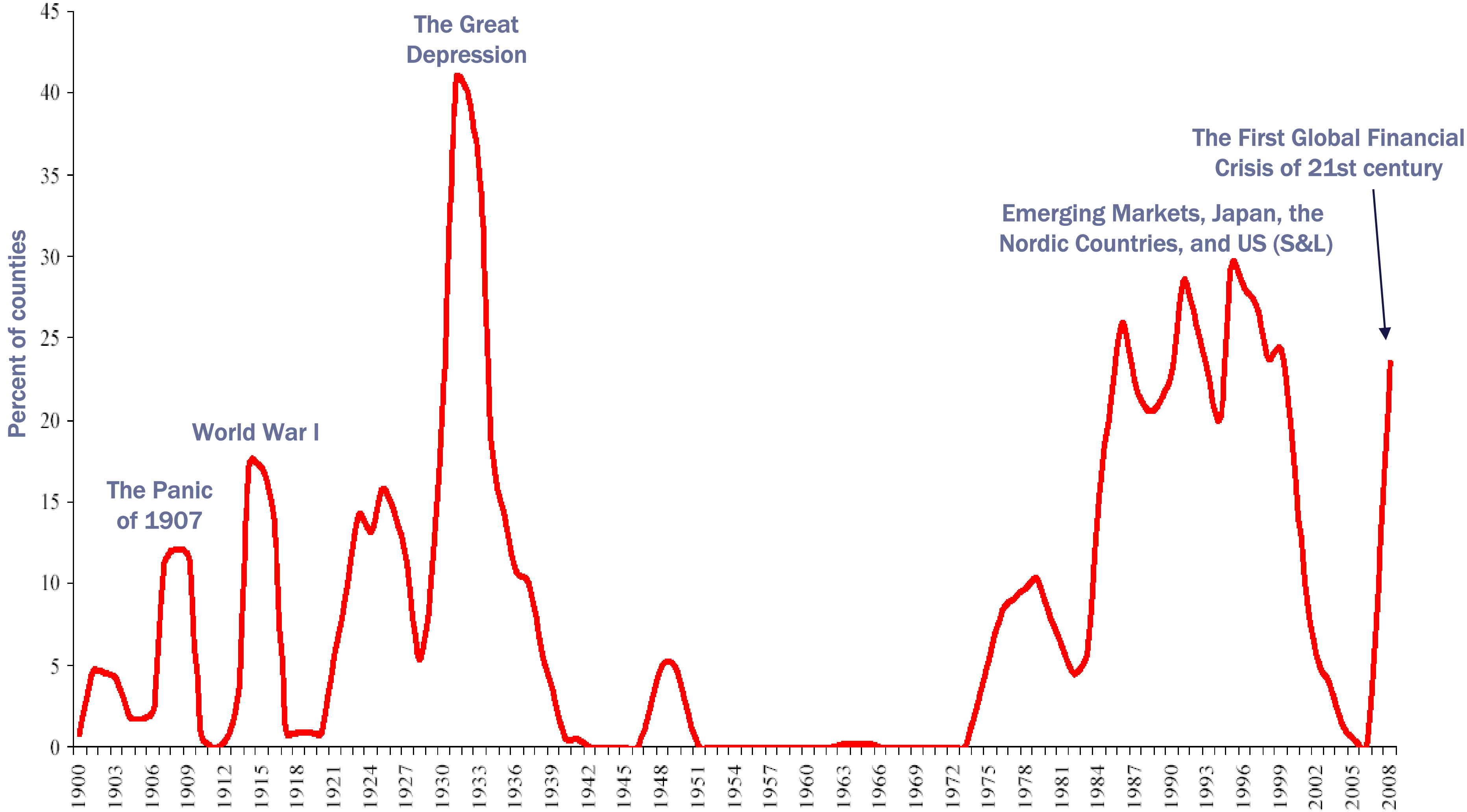
Country	IMF ($ bl)	Total ($ bl.)	% of GDP
Belarus	2.5	7.4	13
Hungary	15.7	25.4	16
Iceland	2.1	10.9	65
Latvia	2.4	10.5	33
Pakistan	7.6	12.4	7
Ukraine	16.4	18.0	10

Source: IMF, WEO Jan. 2009

Recurrent

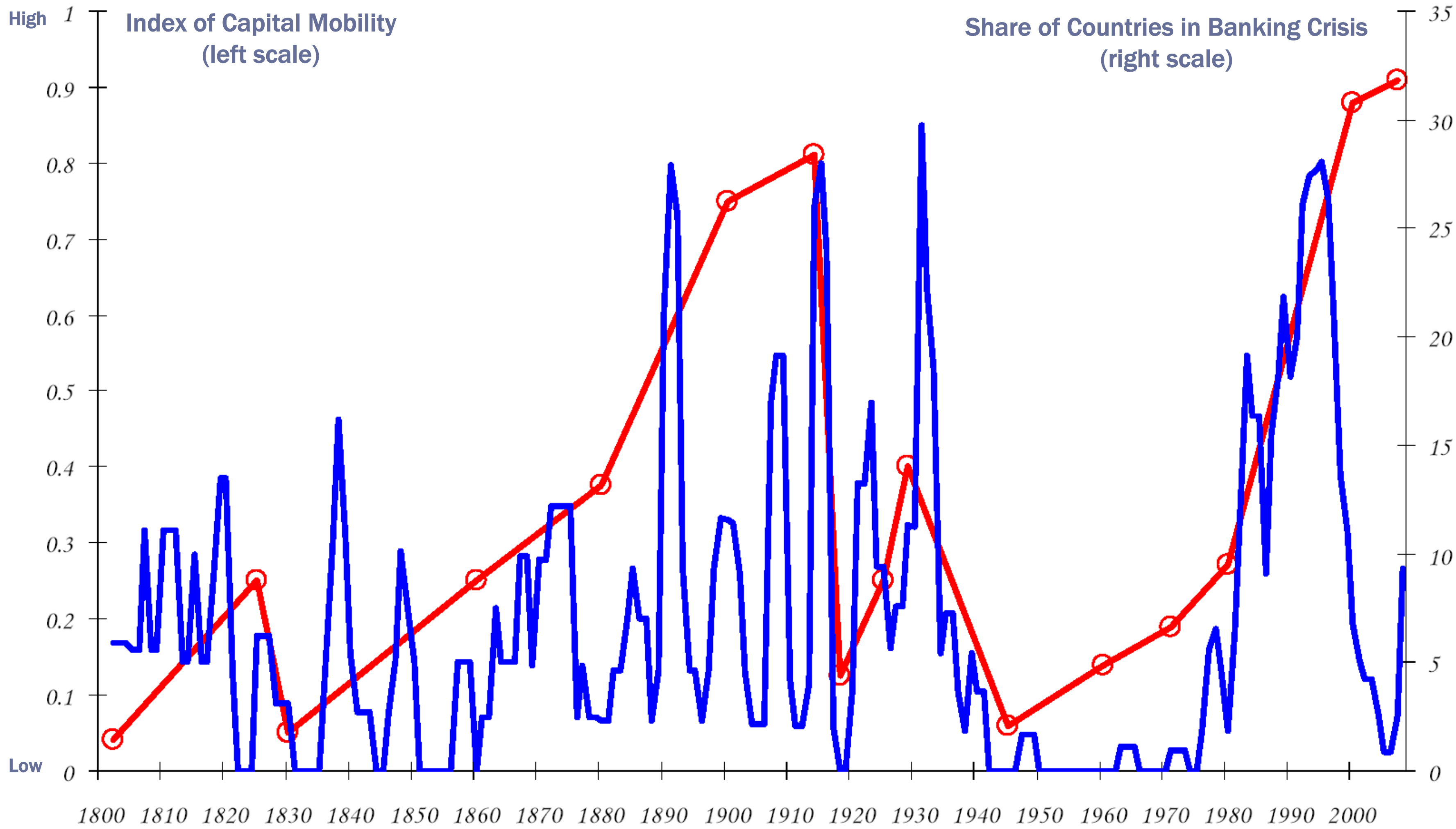
Proportion of Countries with Financial Crises, 1900-2008

Weighted by their share of world income



Source: Reinhart and Rogoff, 2009

Capital Mobility and the Incidence of Financial Crisis



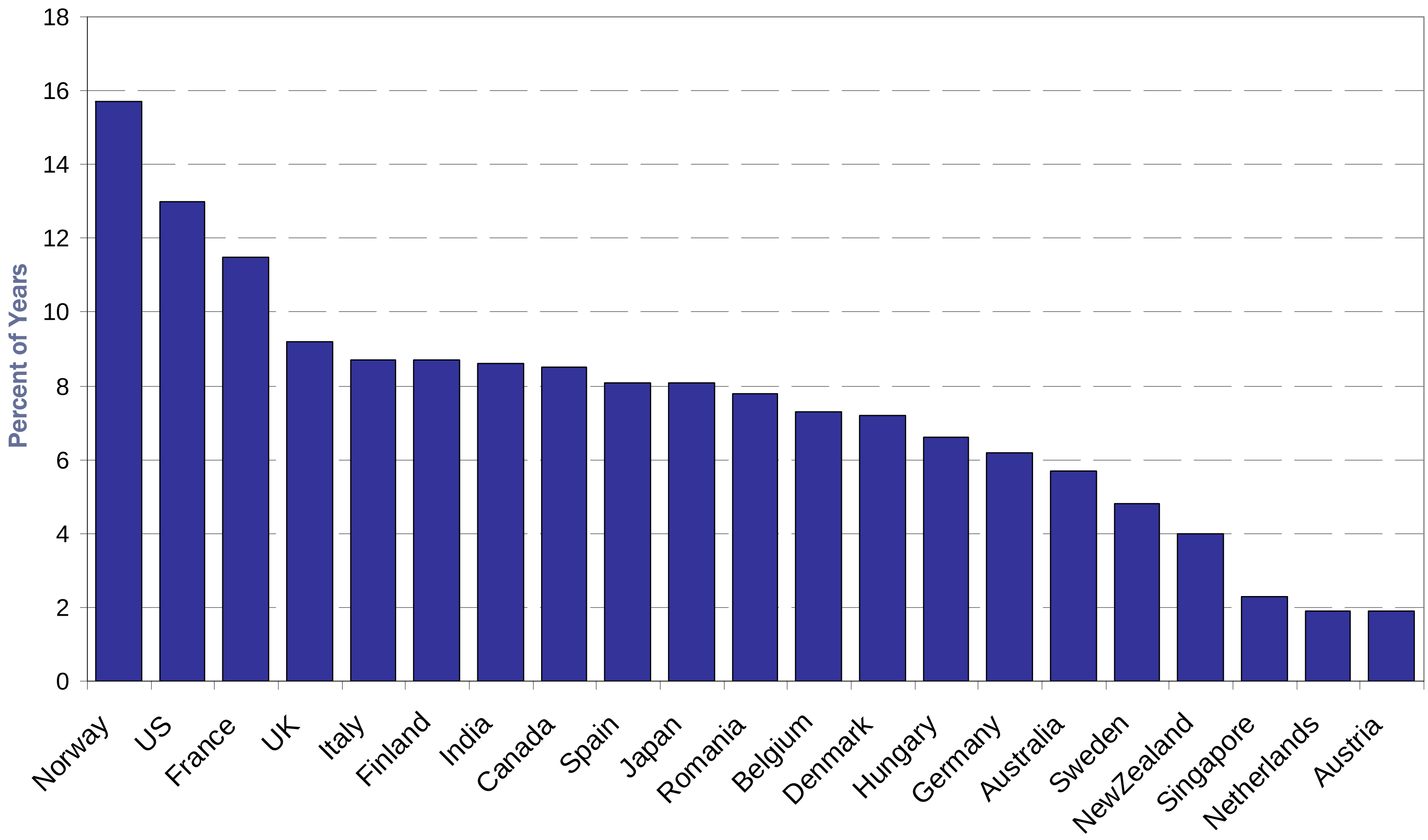
Source: Reinhart and Rogoff, 2009

Financial Crises since 1945 or independence

	Share of years in crisis	Number of crisis
Africa	**12.3**	**1.3**
Asia	**12.4**	**1.8**
Europe	**7.1**	**1.4**
Latin America	**13.5**	**3**
North America	**8.6**	**1.5**
Oceania	**7**	**1.5**
Advanced Economies	**7**	**1.4**
Emerging Economies	**10.8**	**1.7**

Source: Reinhart and Rogoff, 2009

Advanced Economies: Share of years in Financial Crises since 1800 or independence



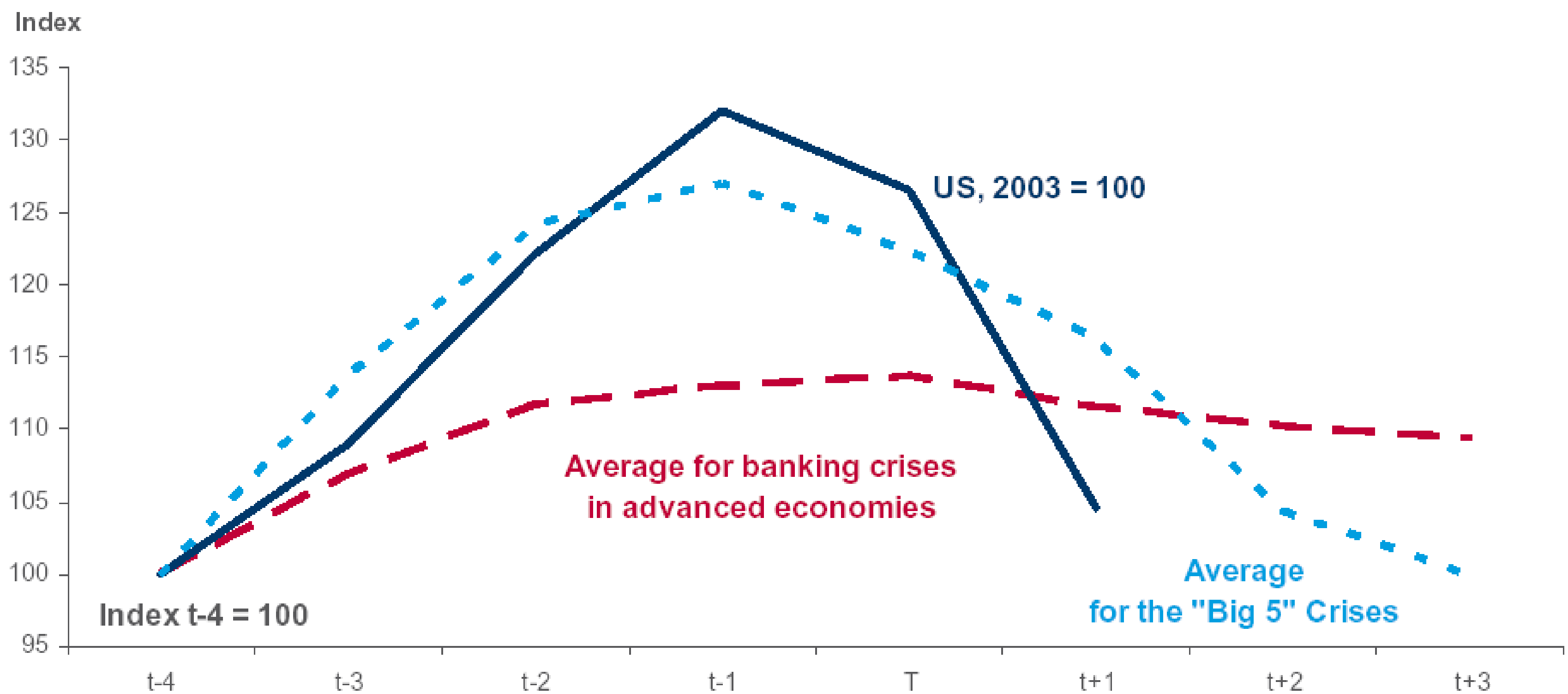
Source: Reinhart and Rogoff, 2009

Costly

Impact of financial crises

- The historical examples of deep financial crises indicates:
  - Recession 2 years
  - Unemployment rises for four years
  - Real housing prices fall for five years
  - Massive increases in government debt at end

Advance Economies: Real Housing Prices and Financial Crises



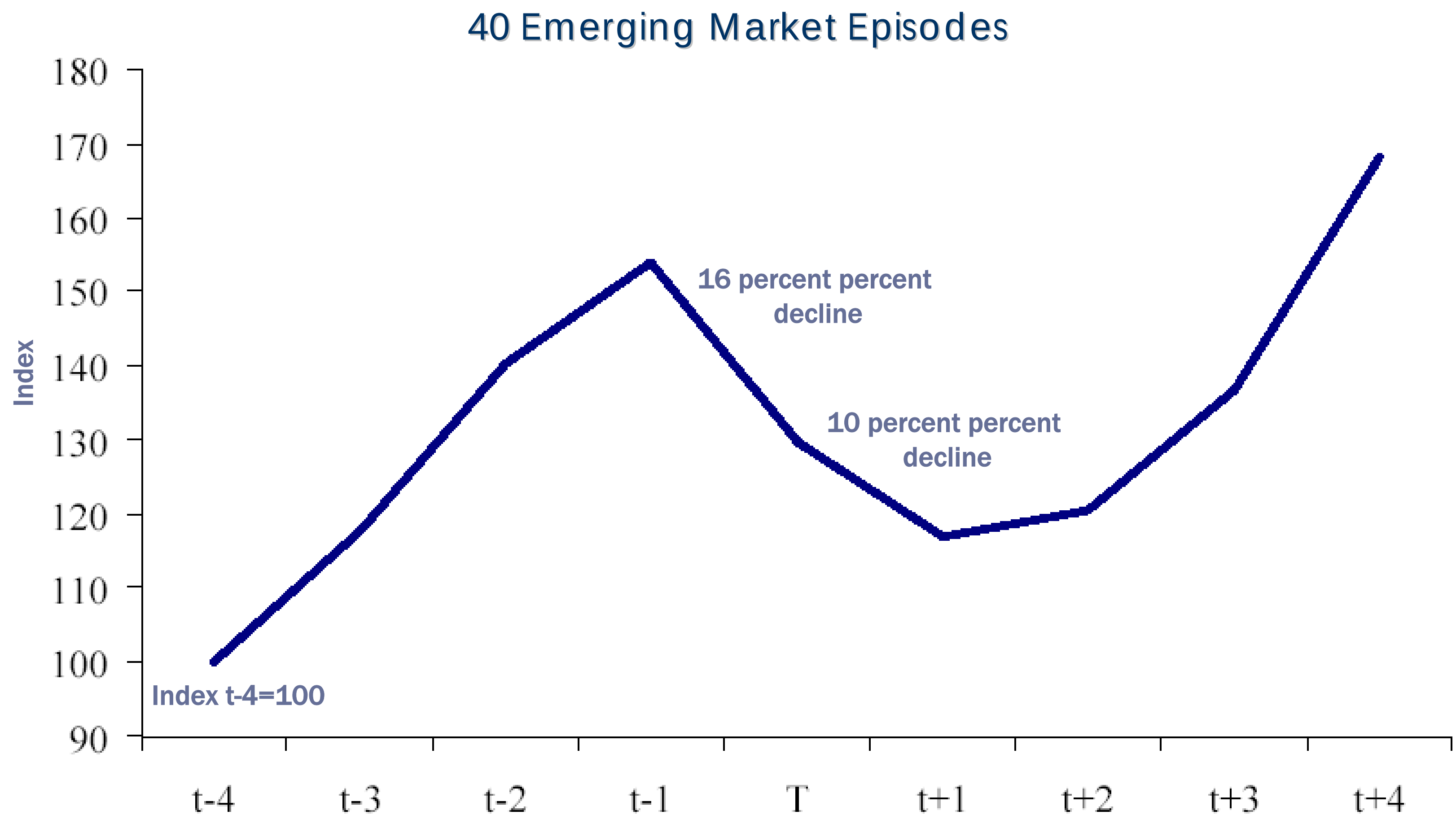
Big five crises: Spain 1977, Norway 1987, Finland 1991, Sweden 1991, and Japan 1992.
Source: Reinhart and Rogoff, 2008

Advance Economies: Real Equity Prices and Financial Crises

Big five crises: Spain 1977, Norway 1987, Finland 1991, Sweden 1991, and Japan 1992.

Source: Reinhart and Rogoff, 2009

Emerging Economies: Real Equity Prices and Financial Crises

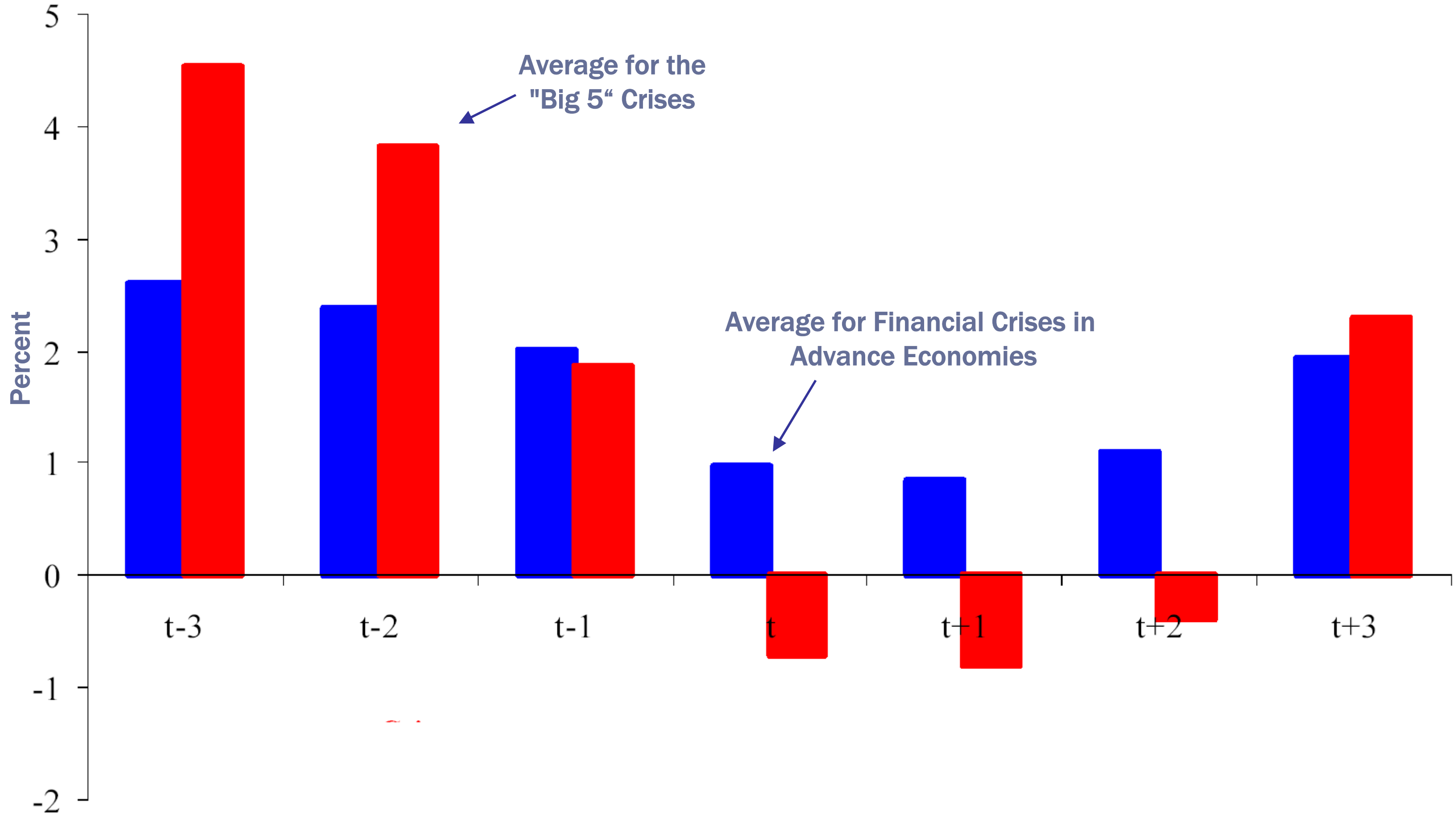


The recovery of the equity market is much faster than the real estate market

Source: Reinhart and Rogoff, 2009

Real GDP Growth per Capita and Financial Crises in Advance Economies

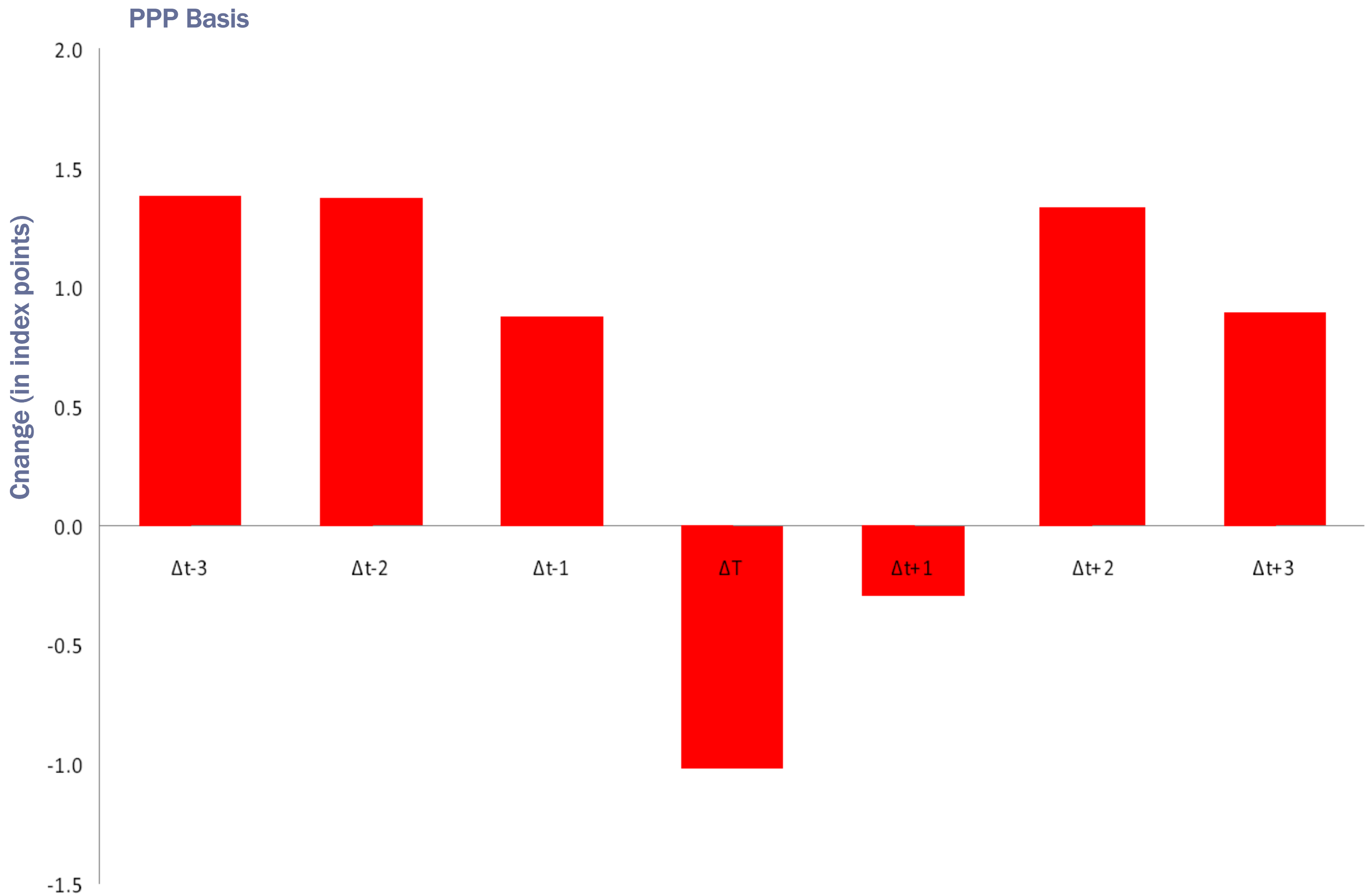
PPP Basis



Big five crises: Spain 1977, Norway 1987, Finland 1991, Sweden 1991, and Japan 1992.

Source: Reinhart and Rogoff, 2009

Real GDP Growth per Capita and Financial Crises in Emerging Markets



Source: Reinhart and Rogoff, 2009

Real GDP Growth per Capita and Financial Crises

PPP Basis

Big five crises: Spain 1977, Norway 1987, Finland 1991, Sweden 1991, and Japan 1992.
Source: Reinhart and Rogoff, 2009

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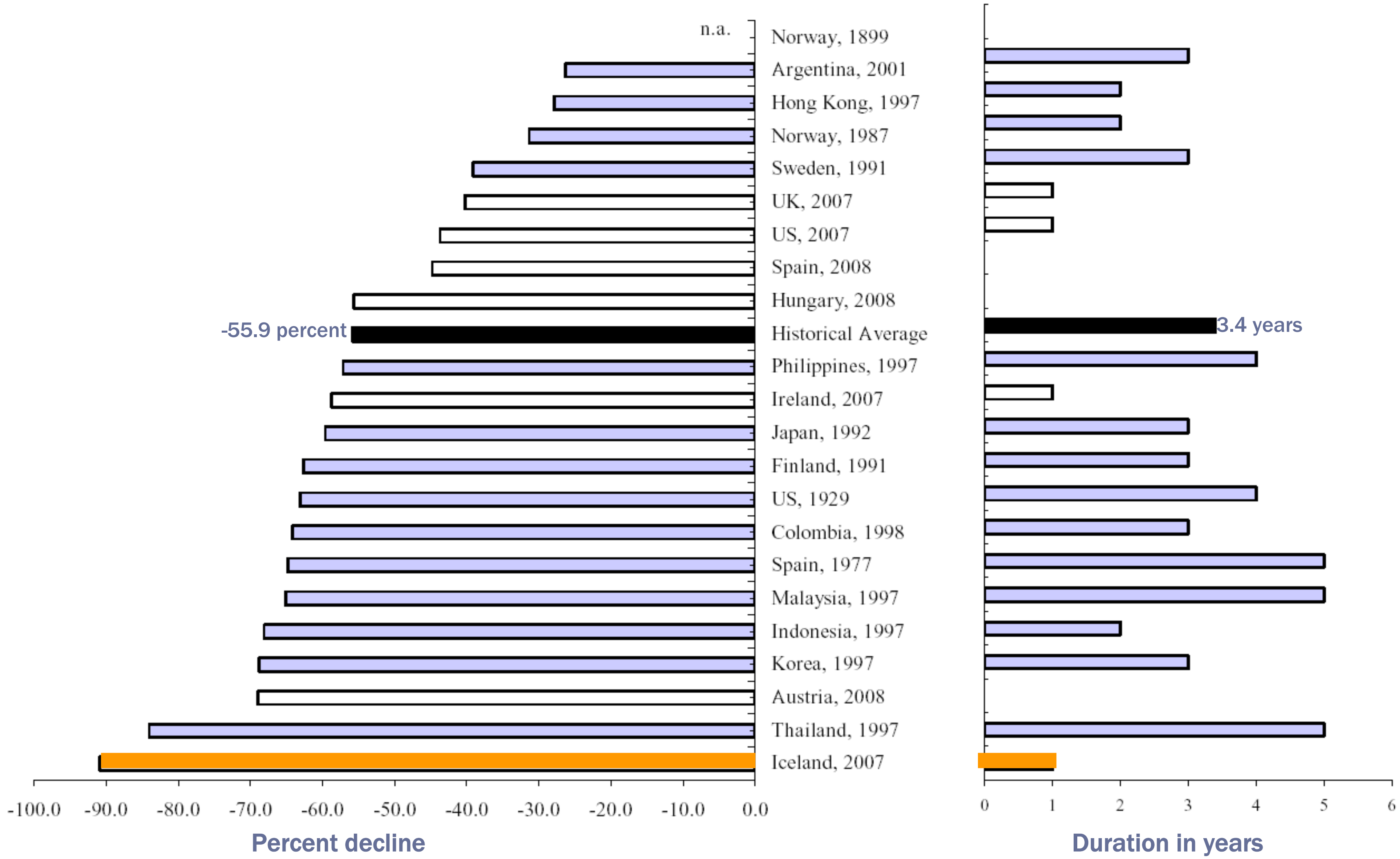
Financial crisis summary: Peak-to-trough changes, all countries

Averages	Cumulative % change	Duration
Real housing prices	-36	5 years
Real equity prices	-56	3.4 years
Unemployment, trough-to-peak	7	4.8 years
Real per capita GDP	-9.3	1.9 years

Ongoing Crisis

Real Equity Prices and Financial Crises

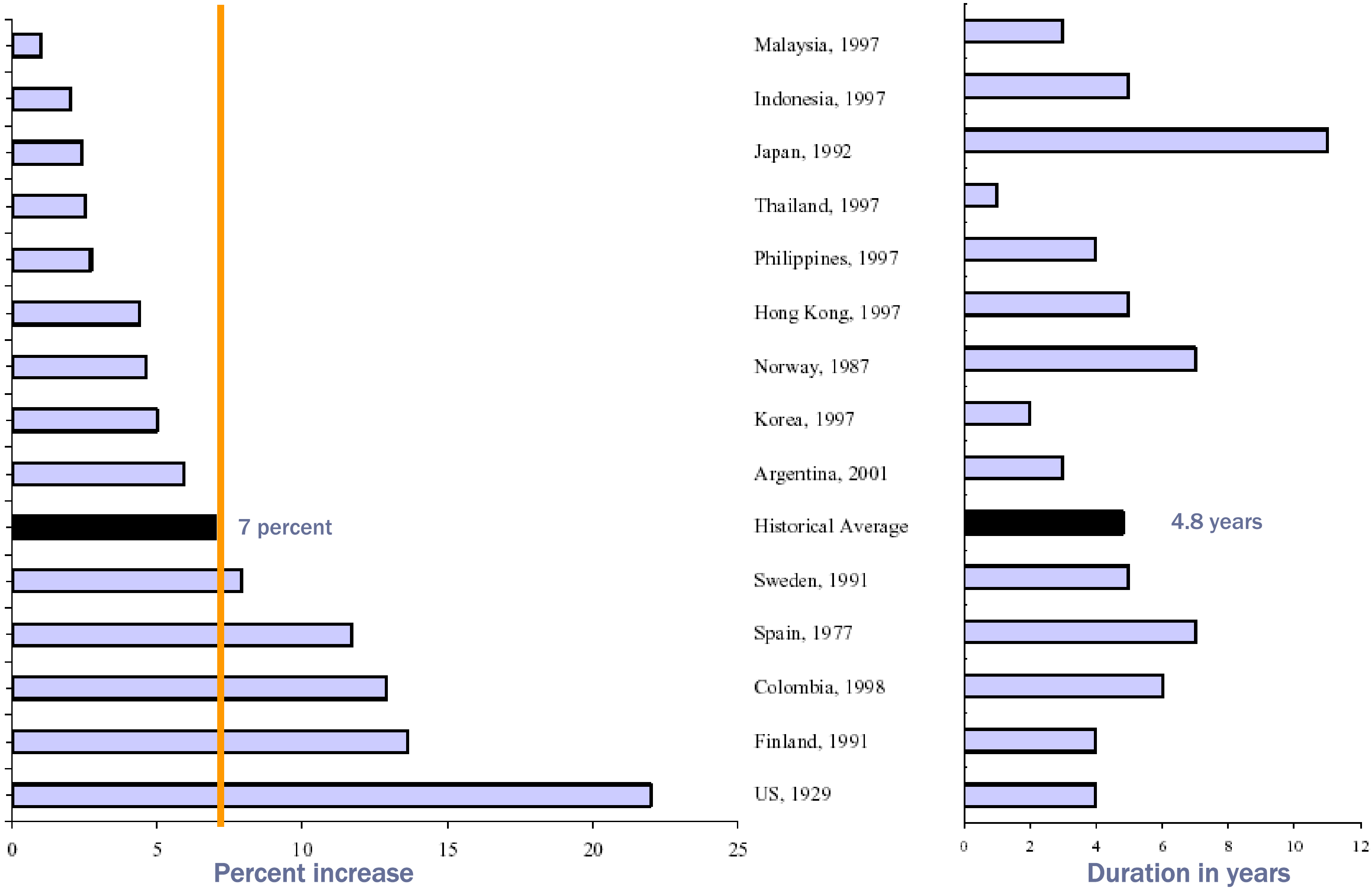
Peak-to-trough Price Declines (left panel) and Years Duration of Downturn (right panel)



Source: Reinhart and Rogoff, 2009

Unemployment Cycles and Financial Crises

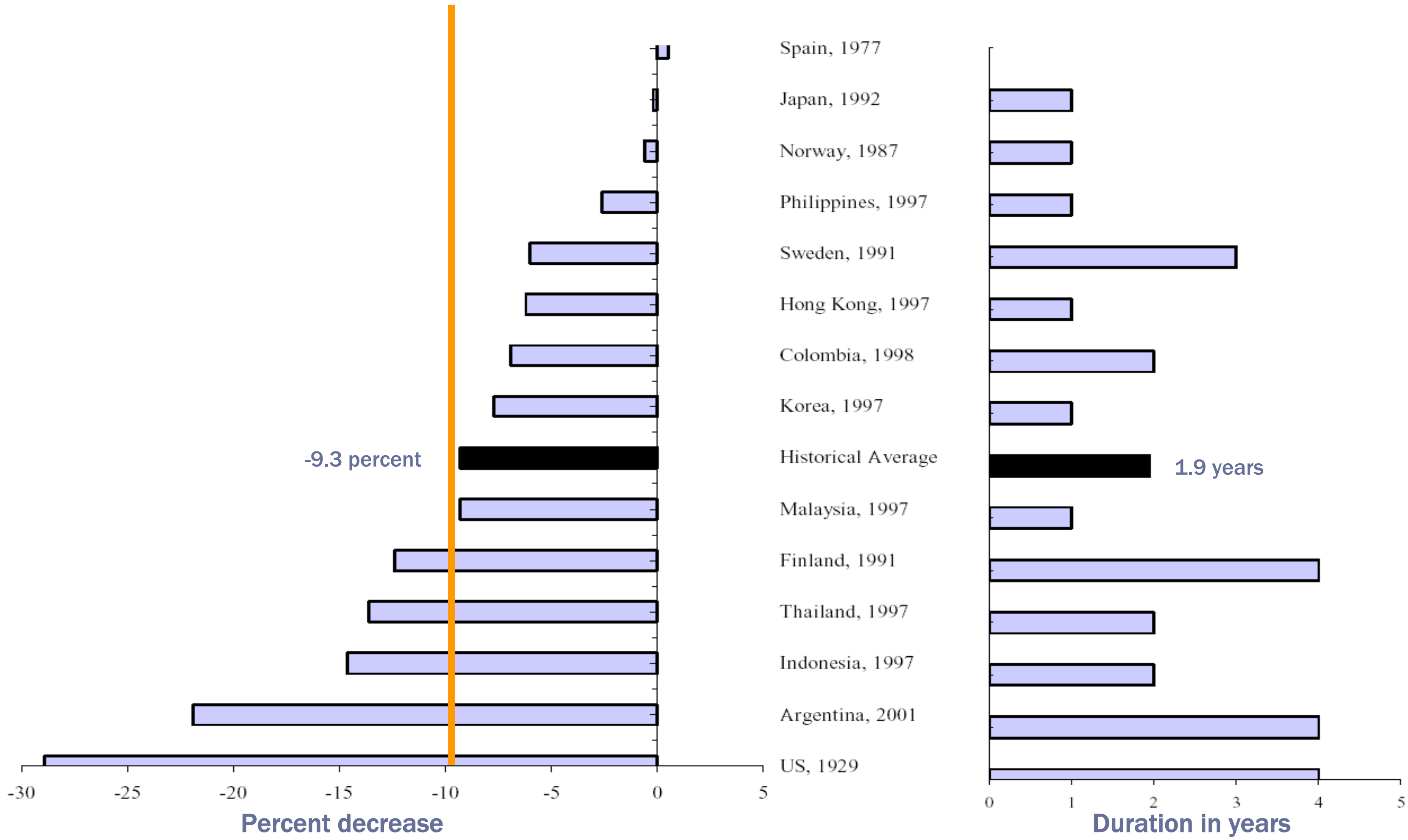
Peak-to-trough Percent Increase in the Unemployment Rate (left panel) and Years Duration of Downturn (right panel)



Source: Reinhart and Rogoff, 2009

Real Per Capita GDP Cycles and Financial Crises

Peak-to-trough Percent Decline in Real GDP (left panel) and Years Duration of Downturn (right panel)



Source: Reinhart and Rogoff, 2009

IMF Packages Compared to Past Crises

IMF Programs				
Country	Year	$ bn	% of GDP	% of IMF Quota
Argentina	1992	5.7	2%	262%
Argentina	2000	22.3	8%	800%
Argentina	2003	12.6	10%	424%
Brazil	1998	17.7	2%	598%
Brazil	2001	15.5	3%	401%
Brazil	2002	35.5	7%	903%
Indonesia	1997	10.1	5%	490%
Korea	1997	21.1	5%	1938%
Mexico	1995	18.4	6%	690%
Philippines	1998	1.4	2%	161%
Russia	1996	10.0	3%	160%
Russia	1999	4.5	2%	56%
Thailand	1997	4.0	3%	505%
Turkey	1999	20.6	8%	1560%
Turkey	2002	16.6	7%	1330%
Turkey	2005	9.8	2%	691%
Uruguay	2002	2.6	21%	650%
NEW PROGRAMS				
Hungary	2008	15.7	11%	1020%
Ukraine	2008	16.5	8%	800%
Iceland	2008	2.1	11%	1190%

Comments

- While each crisis has idiosyncratic features (the Icelandic one being no exception), the run-up and unfolding of the current crisis bears many similarities to past episodes of financial crises.
- Furthermore, the data shows –despite what the media says-- that the current situation of the Icelandic economy is no worse than many past financial crises.
- In fact, Iceland has better economic foundations than many of the countries in the sample analyzed (more on this later).
- Therefore, despite the current hardship, Iceland has reason to be optimistic about the recovery.

Lessons

Lesson 1: Social Policies

- The evidence shows that the negative impact on unemployment is deeper and more pervasive than is the impact on output.
- Therefore government policies should focus on minimizing the social impact of the crisis.
- The social policies implemented should neither distort the labor market nor kill incentives.
- The evidence shows that although output contractions are more severe in emerging markets, they present a lower increase in unemployment.

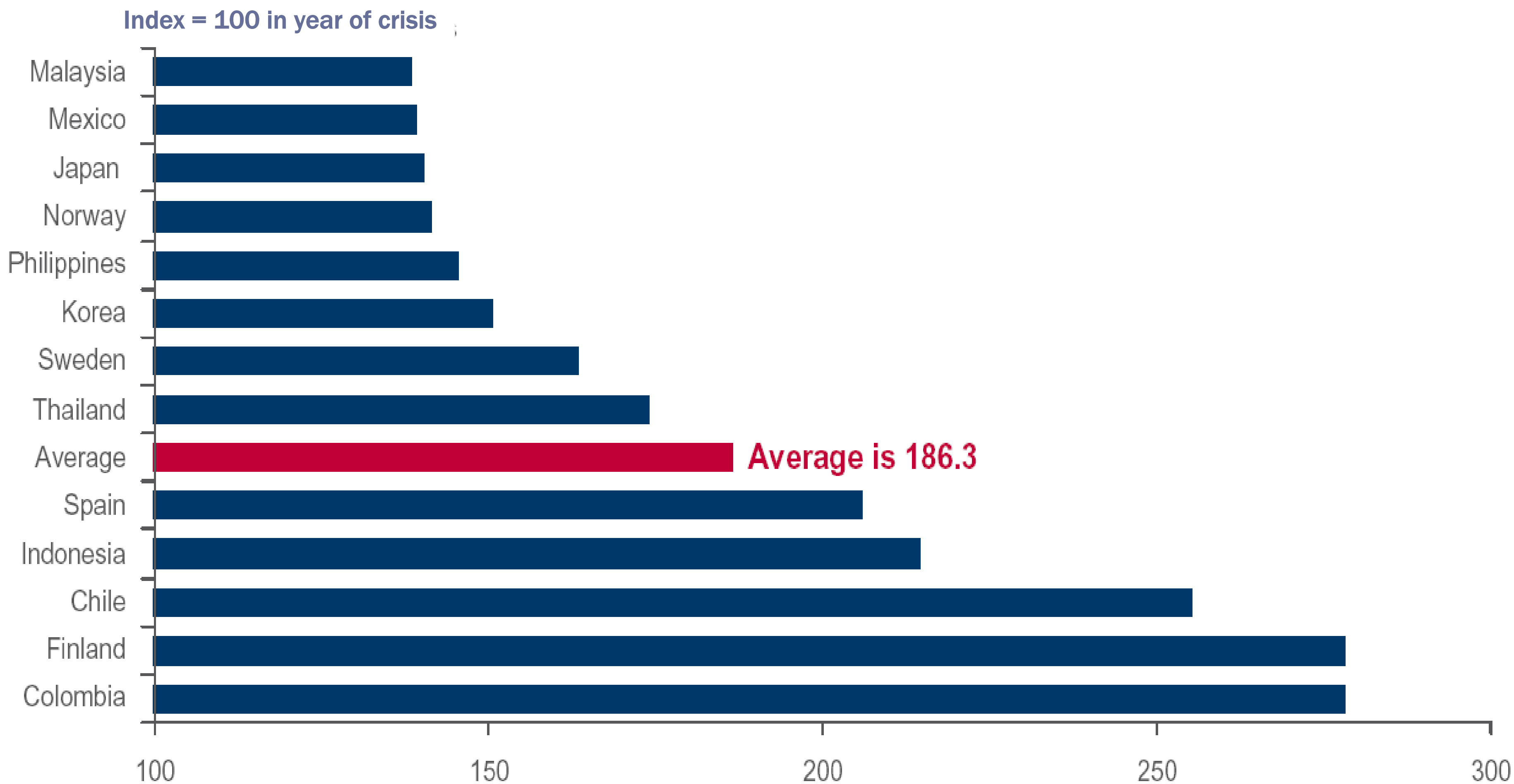
Lesson 2: Fiscal Policy

- The banking crisis should not result in a debt crisis.
- That the nearly universal focus on calculations of bailout costs as the centerpiece of the fiscal consequences of financial crises is misguide and incomplete.
- Financial crises weaken fiscal positions beyond the costs of bailouts, as government revenues contract and stimulus plans find favor.

Fiscal Impact of Financial Crises

Country, crisis year	Year before the crisis	Peak deficit (year)	Increase (-decrease) in the fiscal deficit
	Central government balance/GDP		
Argentina, 2001	-2.4	-11.9 (2002)	9.5
Chile, 1980	4.8	-3.2 (1985)	8.0
Colombia, 1998	-3.6	-7.4 (1999)	3.8
Finland, 1991	1.0	-10.8 (1994)	11.8
Indonesia, 1997	2.1	-3.7 (2001)	5.8
Japan, 1992	-0.7	-8.7 (1999)	9.4
Korea, 1997	0.0	-4.8 (1998)	4.8
Malaysia, 1997	0.7	-5.8 (2000)	6.5
Mexico, 1994	0.3	-2.3 (1998)	2.6
Norway, 1987	5.7	-2.5 (1992)	7.9
Spain, 1977	-3.9	-3.1 (1997)	-0.8
Sweden, 1991	3.8	-11.6 (1993)	15.4
Thailand, 1997	2.3	-3.5 (1999)	5.8

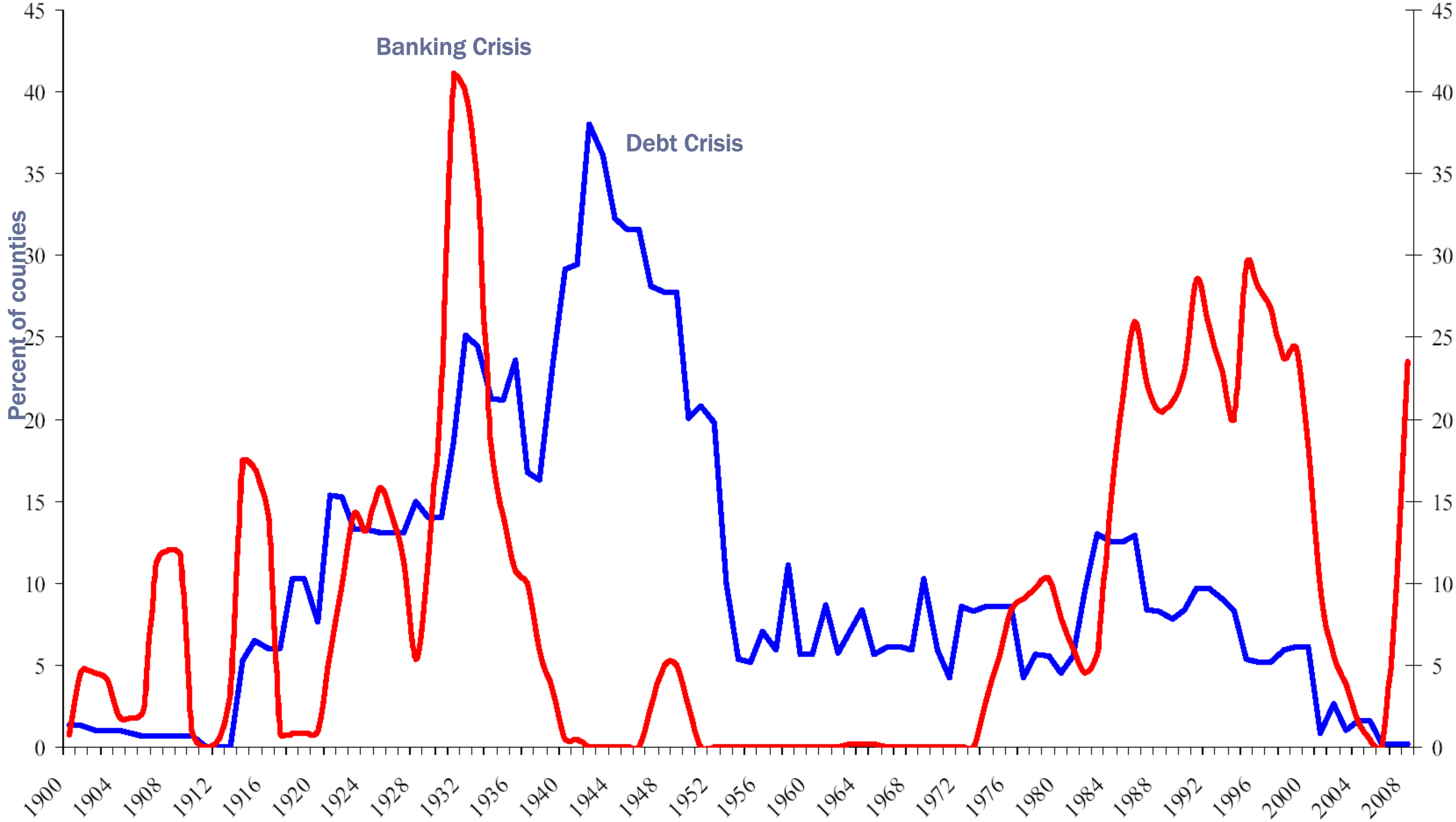
Cumulative increase in public debt in the three years following the banking crisis



Source: Reinhart and Rogoff, 2008

Proportion of Countries with Banking and Debt Crises, 1900-2008

Weighted by their share of world income



Source: Reinhart and Rogoff, 2009

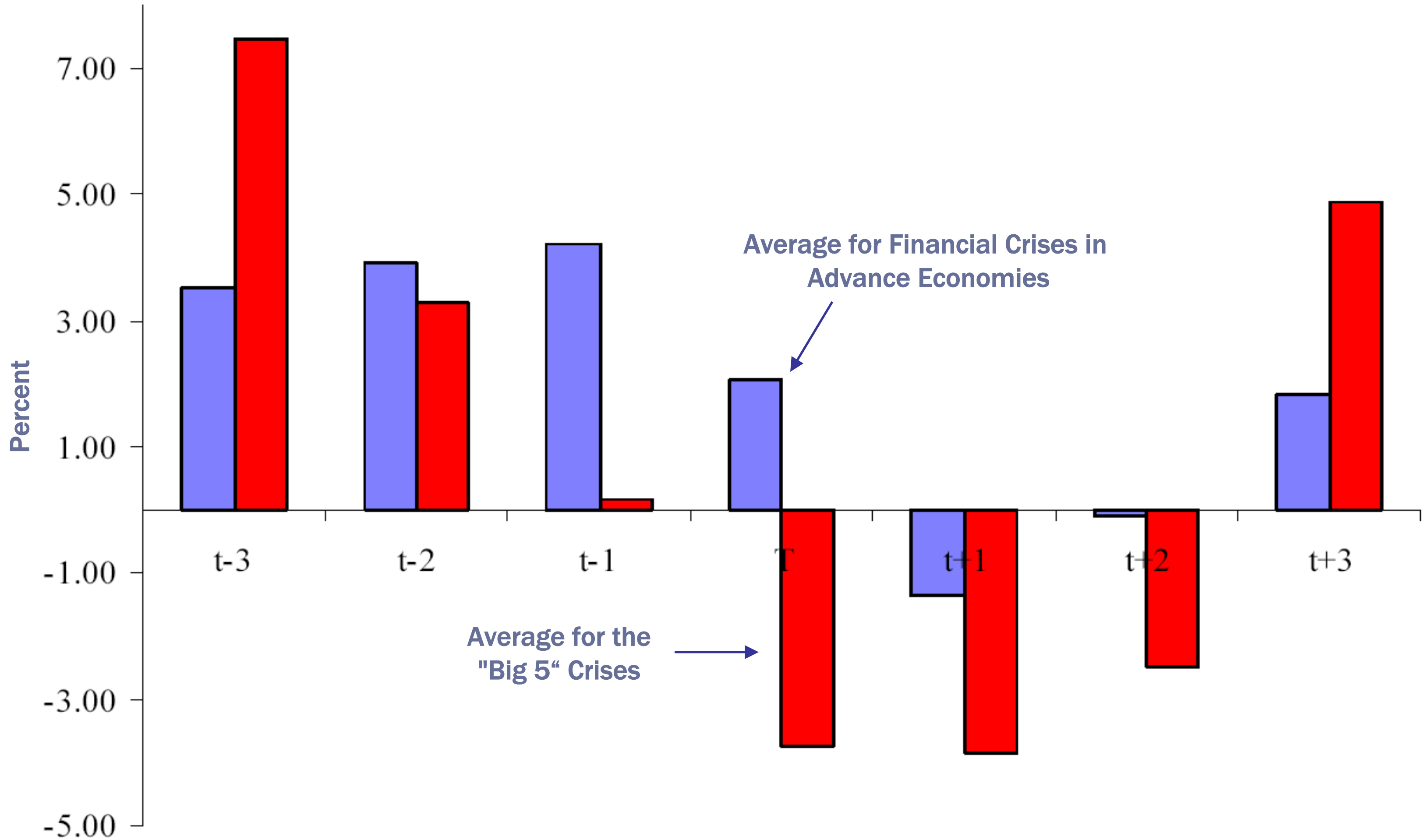
Watch-out for stimulus plans

- The government should not try to spend its way out of the crisis.
- Evidence shows that governments engage in stimulus packages often involving wasteful expenditure programs.
- At the height of Japan's banking crisis in the 1990s, repaving the streets in Tokyo became a routine exercise. As a result, Japan's gross debt-to-GDP ratio is now nearly 200 percent and a drag on what once was a vibrant economy.

Watch out for tax increases

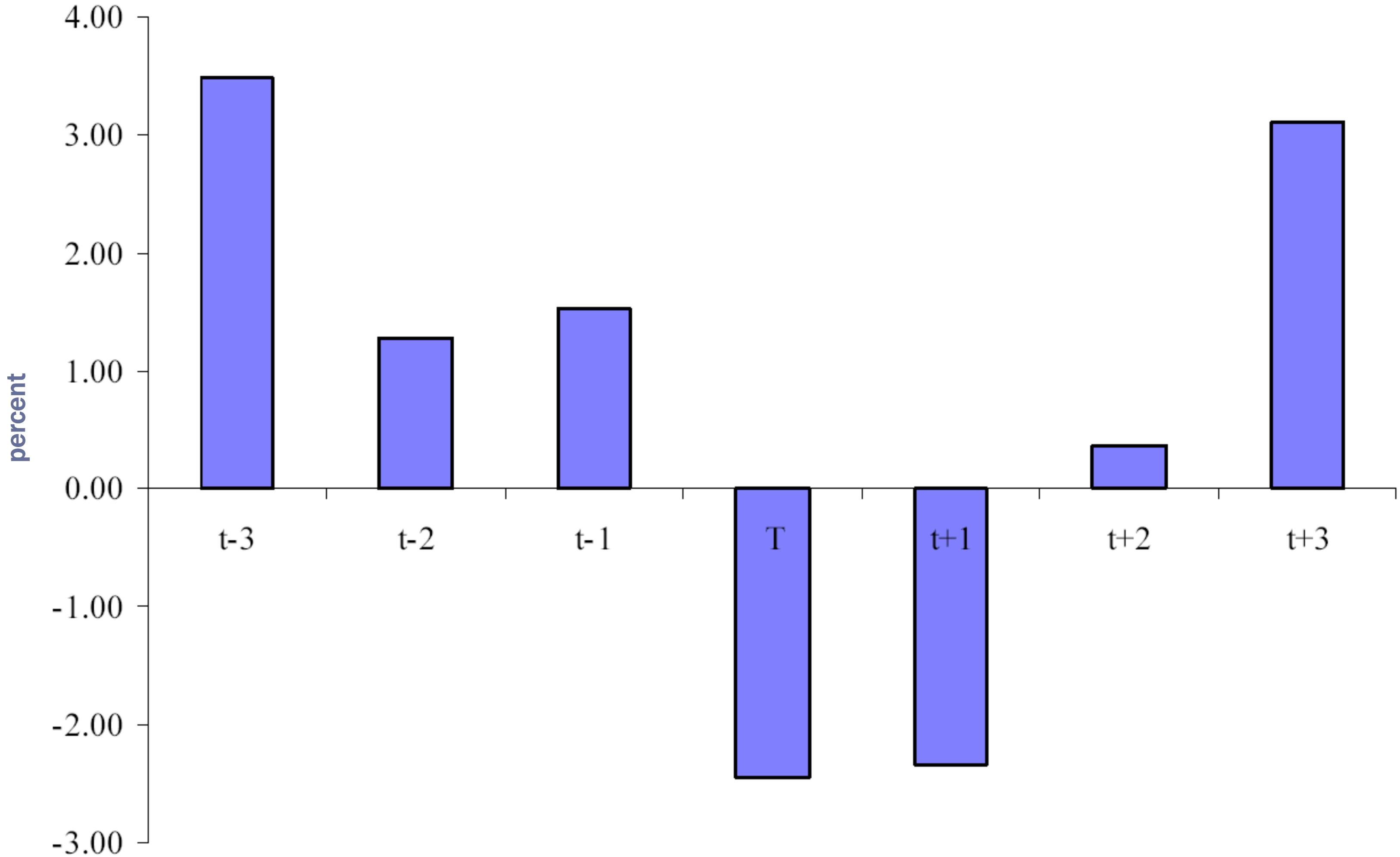
- To a great extent, fiscal positions weaken because output contracts.
- An increase in the tax rates may therefore decrease tax collection.
- Higher taxes → declining output.
- A declining output → declining tax collection.

Real Government Revenue and Financial Crises in Advance Economies



Source: Reinhart and Rogoff, 2009

Real Government Revenue and Financial Crises in Emerging Markets



Source: Reinhart and Rogoff, 2009

Lesson 3: Adopt the EURO

- It can be claimed that the current banking could have been avoided if Iceland would have been inside the EMU.
- Caveat: EMU membership eliminates liquidity problems, not solvency problems.
- The choice is NOT between euro adoption and independent monetary policy.
- The choice is between euro adoption and a closed financial market.

Which is more vulnerable?

	Stocks*	Score	Housing*	Score	Current acount**	Score	Household debt***	Score	Average Score
Iceland	345.6	8	90.1	7	-14.6	8	58.2	7	7.5
Spain	186.7	7	93.2	8	-9.8	7	67.2	8	7.5
UK	67.7	1	46.4	5	-2.9	5	30.6	6	4.3
US	68.4	2	45.6	4	-5.6	6	25.9	5	4.3
France	97.6	4	67.4	6	-1.3	3	14.0	4	4.3
Italy	84.0	3	37.1	3	-2.0	4	10.5	3	3.3
Germany	176.8	6	9.3	2	6.0	1	-7.2	1	2.5
Japan	111.4	5	-17.2	1	4.7	2	-2.1	2	2.5

* % change end 2002 to mid-2007

** 2007

***Change between 2002 and 2007

Source: OECD, Haver, DB Global Markets Research

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Economic Foundations

- Abundant natural resources
- Favorable demographics
- Fully funded pension system
- Flexible labor market
- Competitive tax system
- Good education system and health system

Capital Flows: The highway analogy

- Superhighways: Modern financial markets get you where you want to go, but accidents at high speeds are more likely fatal, and so more care is required.
- Capital flows sudden stops:
  - "It's not the speed that kills, it's the sudden stops" –

Capital Flows: The highway analogy

- Is it the road or the driver? Even when multiple countries have accidents in the same stretch of road, their own policies are also important determinants; it’s not just the fault of the system.
- Contagion is also a contributor to multi-car accidents.

- So a countries should implement reforms & prudential regulation to their financial system.
- Routine defensive driving: Keeping high reserves, low government debt and an economy open to trade is like leaving ample following-distance.
- The best defensive driving strategy is to adopt the a international lender of last resort

Conclusion

- Very difficult and risky GLOBAL recession.
- Efficient government response is warranted: short run remedies are necessary but not the solution.
  - Capital controls
  - Fiscal policy
- The history of financial crises suggests a good chance that growth will no longer be negative by the ½ half of 2010.
- The Icelandic economic foundations allow us to be optimistic about the future.
- But this is contingent to the right choice of policies.