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*This Time is Different: A Panoramic View of  
Eight Centuries of Financial Crises*

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*Carmen M. Reinhart, University of Maryland and NBER*

*Kenneth S. Rogoff, Harvard University and NBER*

# *This Time is Different: A Panoramic View of Eight Centuries of Financial Crisis, Presentation outline*

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- *Highlights from a first view (or insights) of the new dataset.*
- *Overview of the sample and data coverage*
- *History of serial default*

# *This Time is Different: A Panoramic View of Eight Centuries of Financial Crisis, Presentation Outline*

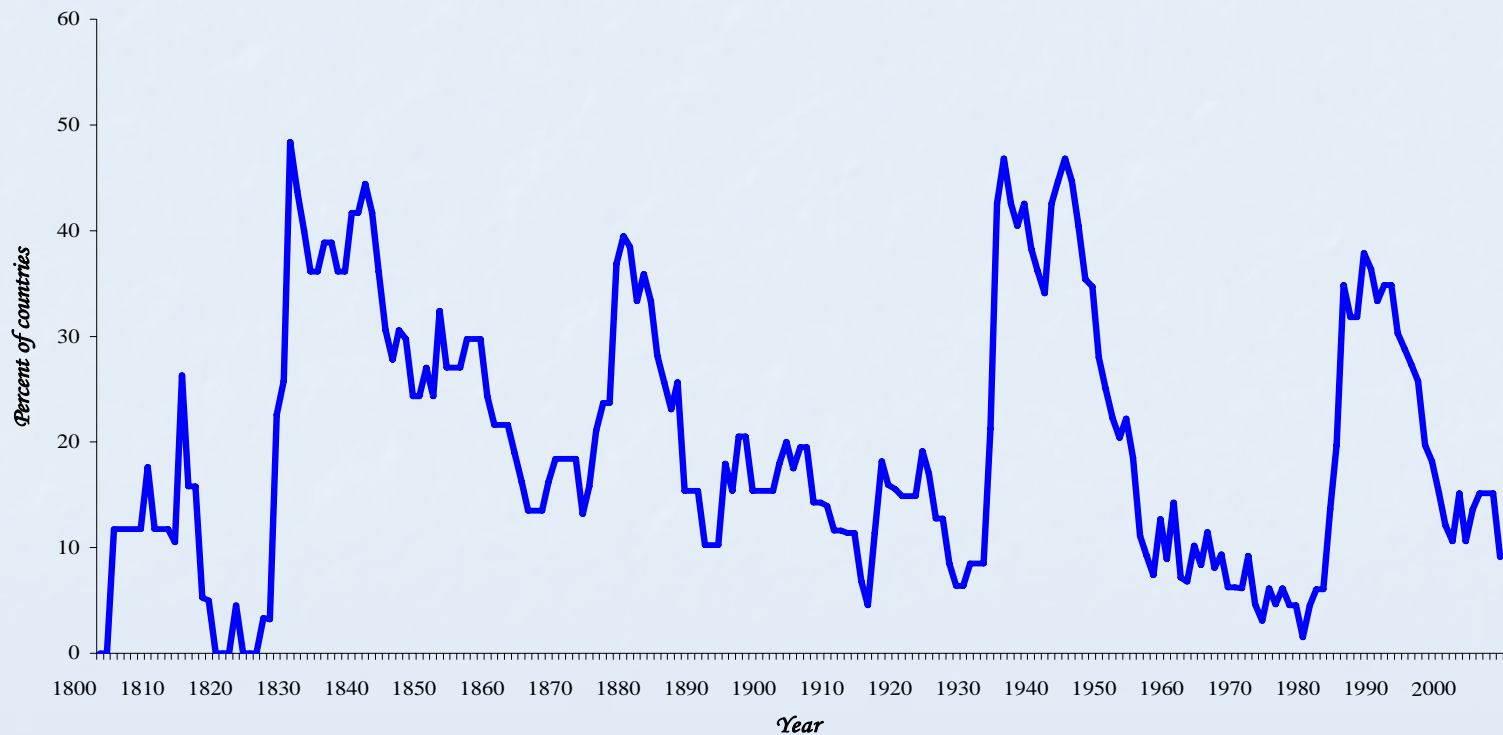
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- *Effects of global factors on sovereign default including commodity prices and capital flows emanating from center countries*
- *History of Currency debasement and inflation*
- *Composite index that aggregates the “variety of crises”*

# First insights: Default cycles

Figure 1

*Sovereign External Debt: 1800-2006*  
*Percent of Countries in Default or Restructuring*



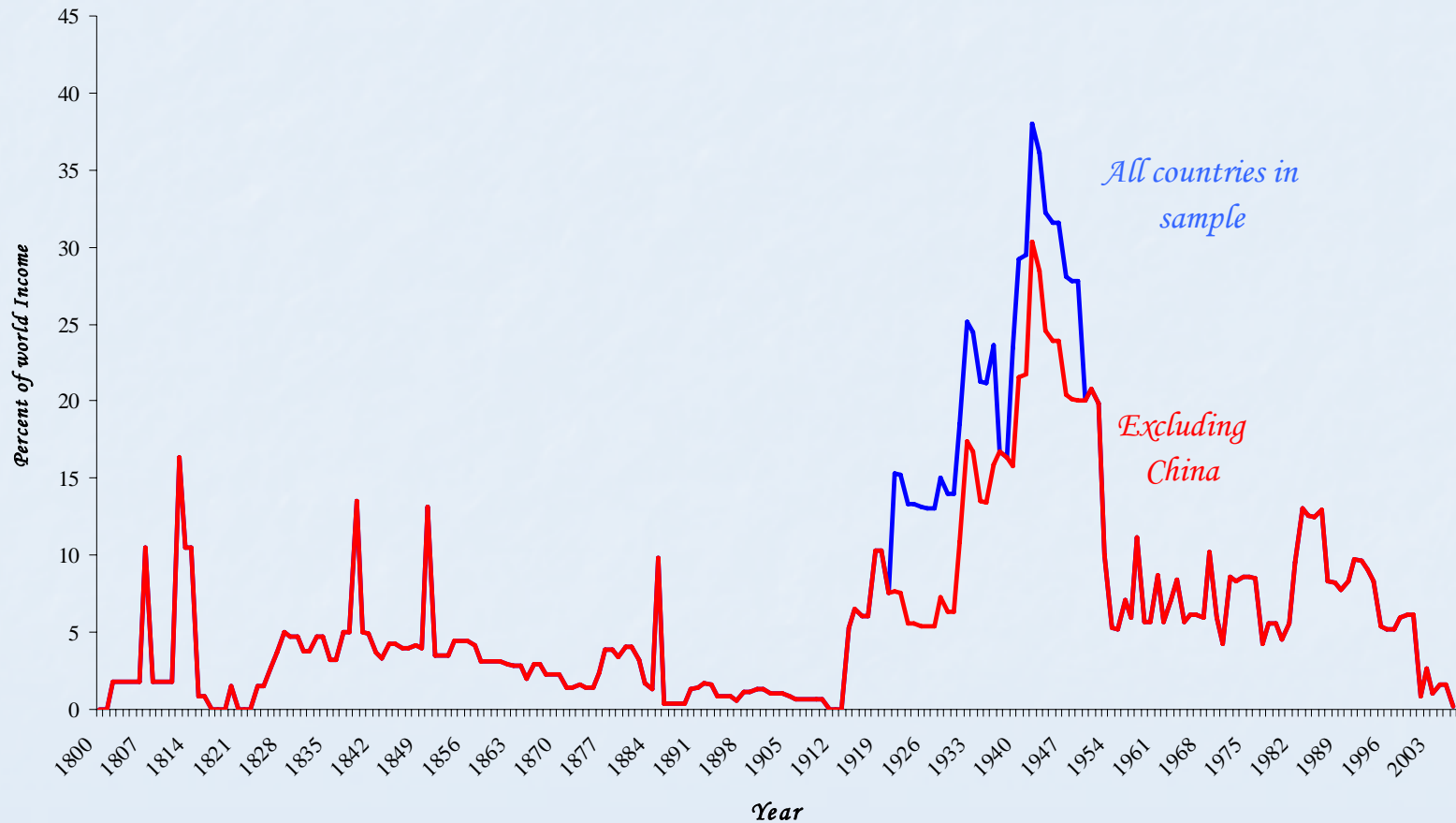
## *First insights: Default cycles (continued)*

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- *For the world as a whole (or at least the more than 90 percent of global GDP represented by our dataset), the current period can be seen as a typical lull that follows large global financial crises.*
- *There are the long periods where a high percentage of all countries are in a state of default or restructuring.*

# First insights: Default cycles (continued)

*Sovereign External Debt: 1800-2006*  
*Countries in Default Weighted by Their Share of World Income*



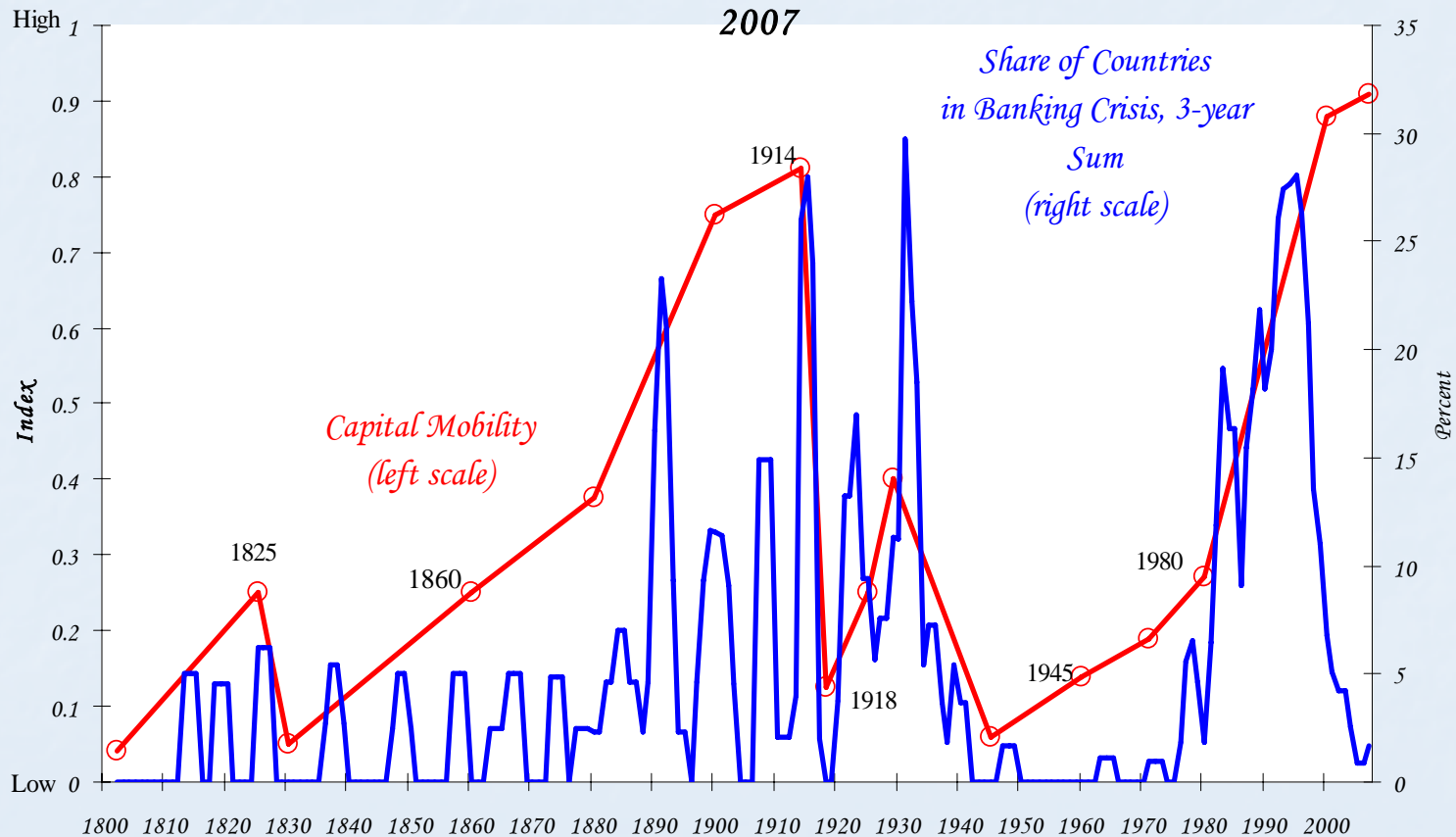
## *First insights: Default cycles (concluded)*

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- *Several years (maybe one and two decades) of lulls in defaults are not uncommon globally, but each tranquil period has invariably been followed by a wave of default*

# First insights: Banking crises and capital mobility, 1800-2007

Capital Mobility and the Incidence of Banking Crisis: All Countries, 1800-2007



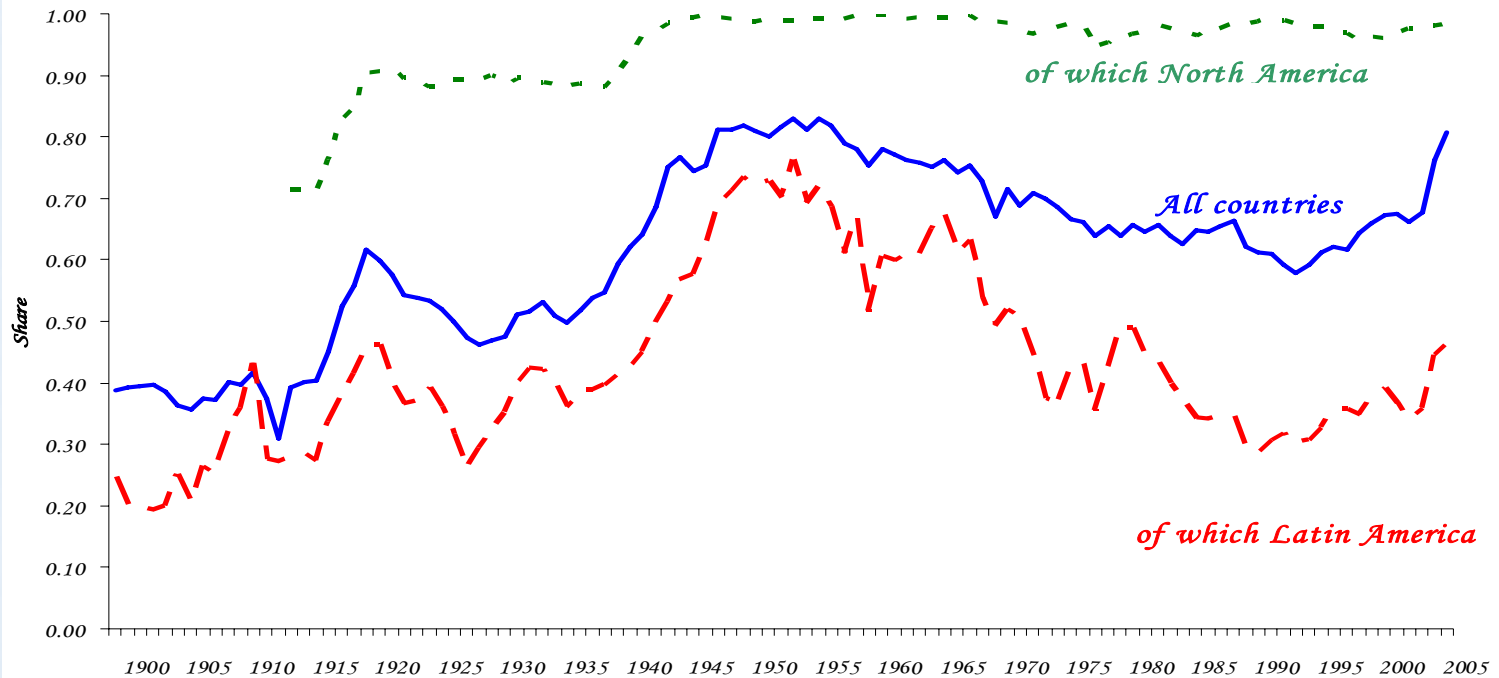
# *First insights: Banking crises and capital mobility: 1800-2007*

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- *Periods of high international capital mobility have repeatedly produced international banking crises, not only famously as they did in the 1990s, but historically.*

# First insights: Domestic debt

*Domestic Public Debt as a Share of Total Debt,  
1900-2006*



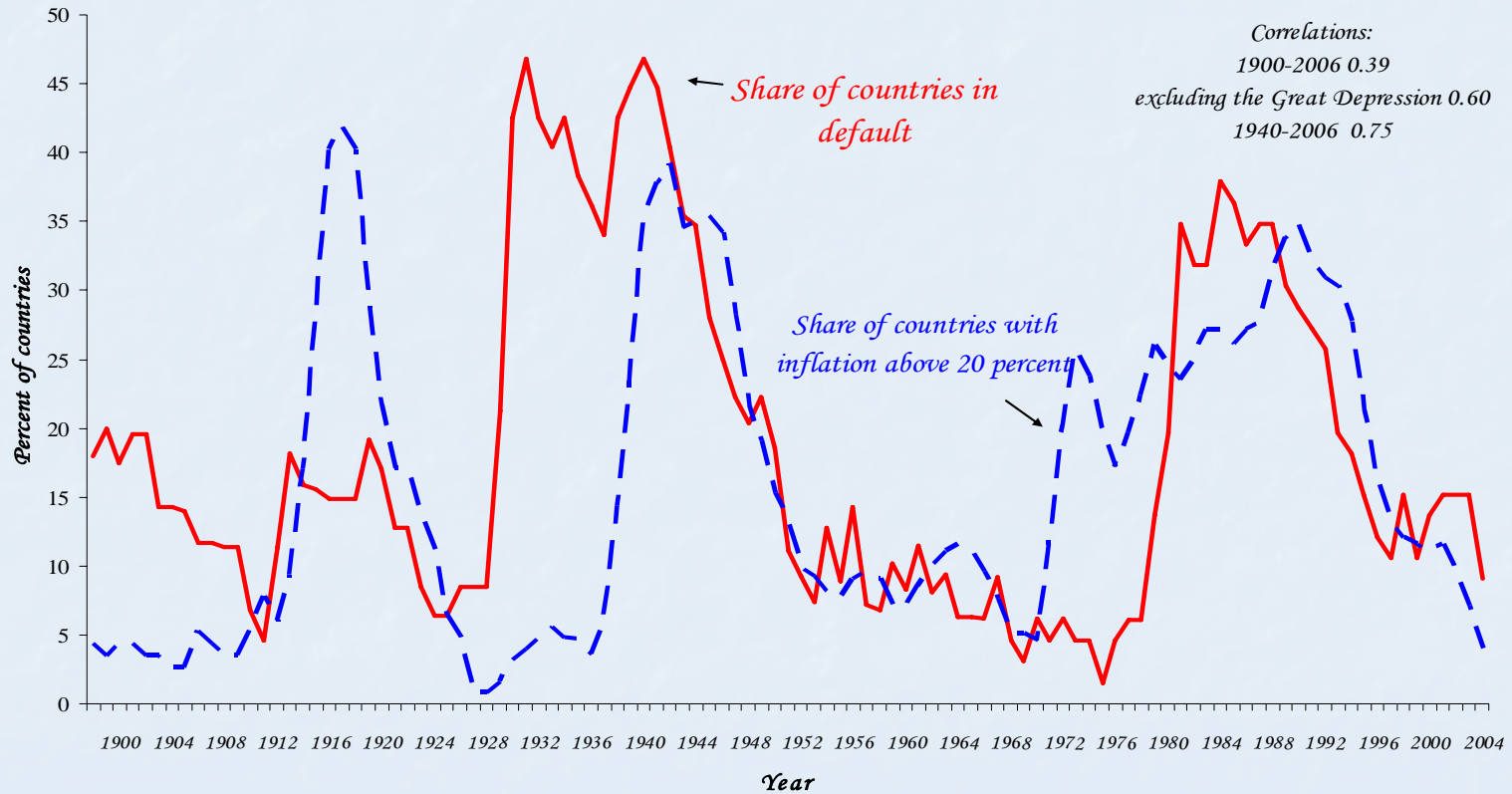
## *First insights: Domestic debt*

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- *Contrary to most contemporary opinion, domestic debt constituted an important part of government debt in most countries, including emerging markets, over most of their existence.*

# First insights: Inflation and external default

*Inflation and External Default: 1900-2006*



## *First insights: Inflation and external default*

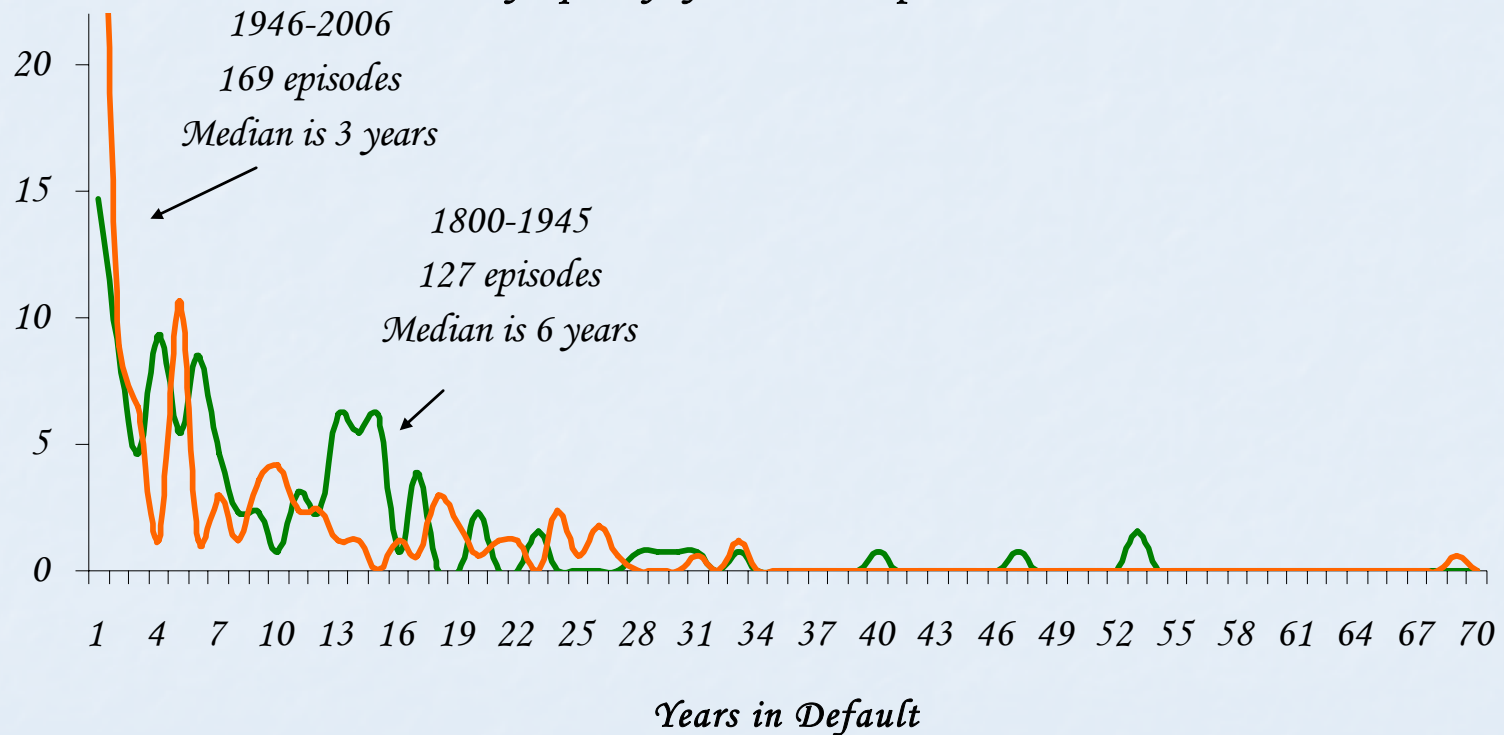
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- *There is a striking correlation between the share of countries in default on external debt at one point and the number of countries experiencing high inflation.*

# First insights: Duration of default episodes

## Duration of Default Episodes: 1800-2006

frequency of occurrence, percent



## *First insights: Duration of default episodes*

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- *The median duration of default spells in the post World War II period is one half the length of what it was during 1800-1945.*

## *First insights: Duration and frequency of default episodes*

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- *Have resolution mechanisms improved since the days of gun-boat diplomacy? After all, Newfoundland lost nothing less than her sovereignty when it defaulted on its external debts in 1936.*
- *Not to mention the earlier experience of Egypt, Greece, Morocco, among others.*

## *First insights: Duration and frequency of default episodes*

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- *Or, are bail-outs facilitated?*
- *The number of years separating default episodes in the more recent period is much lower.*

# *A global database on financial crisis with a long-term view*

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*Country Coverage: 66 countries (90% of world GDP)*

- 13 African countries : Algeria, Angola, Central African Republic, Cote D'Ivoire, Egypt, Kenya, Mauritius, Morocco, Nigeria, South Africa, Tunisia, Zambia, and Zimbabwe*
- 12 Asian countries: China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Myanmar, Philippines, Singapore, Taiwan, and Thailand*

# *A global database on financial crisis with a long-term view (continued)*

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- *19 European countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Romania, Russia, Spain, Sweden, Turkey, and United Kingdom.*
- *18 Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela*
- *Plus North America and Oceania.*

# *A global database on financial crisis with a long-term view (concluded)*

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- *All data is annual- this includes the crisis dates*

- *Crisis-related variables*

  - Debt, Prices, Exchange rates*

  - Varieties of Crises: Banking, and external and domestic default*

- *Other macroeconomic series*

  - Government finances, trade , GDP (real and nominal), population, and capital flows*

  - Financial center data and global commodity prices*

# Defining Crises: A Summary of Quantitative Thresholds

<i>Crisis type</i>	<i>Threshold</i>
<i>Inflation</i>	<i>An annual inflation rate 20 percent or higher. We also examine separately the incidence of more extreme cases where inflation exceeds 40 percent per annum.</i>
<i>Currency crashes</i>	<i>An annual depreciation versus the US dollar (or the relevant anchor currency—historically the UK pound, the French franc, or the German DM and presently the euro) of 15 percent or more.</i>
<i>Type I currency debasement</i>	<i>A reduction in the metallic content of coins in circulation of 5 percent or more.</i>
<i>Type II currency debasement</i>	<i>A currency reform where a new currency replaces a much-depreciated earlier currency in circulation. Currency conversions (for example, Chinese conversion at a rate of 3 million to 1 in 1948)</i>

# Defining Crises by Events: A Summary

<i>Type of Crisis</i>	<i>Definition and or Criteria</i>	<i>Comments</i>
<i>Banking crisis</i>  <i>Type I: systemic</i> <i>Type II: financial distress</i>	<i>We mark a banking crisis by two types of events: (1) bank runs that lead to the closure, merging, or takeover by the public sector of one or more financial institutions; and (2) if there are no runs, the closure, merging, takeover, or large-scale government assistance of an important financial institution (or group of institutions), that marks the start of a string of similar outcomes for other financial institutions.</i>	<i>This approach to dating the beginning of the banking crises is not without drawbacks. It could date the crises too late, because the financial problems usually begin well before a bank is finally closed or merged; it could also date the crises too early, because the worst of crisis may come later. Unlike external debt crisis (see below), which have well-defined closure dates, it is often difficult or impossible to accurately pinpoint the year in which the crisis ended.</i>

# Defining Crises by Events: A Summary

<i>Type of Crisis</i>	<i>Definition and or Criteria</i>	<i>Comments</i>
<i>Debt crises: External</i>	<i>A sovereign default is defined as the failure to meet a principal or interest payment on the due date (or within the specified grace period). The episodes also include instances where rescheduled debt is ultimately extinguished in terms less favorable than the original obligation.</i>	<i>While the time of default is accurately classified as a crisis year there are a large number of cases where the final resolution with the creditors (if it ever did take place) seems interminable. For this reason we also work with a crisis dummy that only picks up the first year.</i>
<i>Debt crisis: Domestic</i>	<i>The definition given above for external debt applies. In addition, domestic debt crises have involved the freezing of bank deposits and or forcible conversions of such deposits from dollars to local currency.</i>	<i>There is at best some partial documentation of recent defaults on domestic debt provided by Standard and Poors. Historically, it is very difficult to date these episodes and in many cases (like banking crises) it is impossible to ascertaining the date of the final resolution.</i>

# England

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*First in trade and commerce*

*First in finance*

*First to default on sovereign debt*

*King Edward III, the year was 1340*

## *Serial default 1340-1799*

<i>Country</i>	<i>Years of default</i>	<i>Number of defaults</i>
<i>Austria</i>	<i>1796</i>	<i>1</i>
<i>England</i>	<i>1340, 1472, 1594*</i>	<i>2*</i>
<i>France</i>	<i>1558, 1624, 1648</i> <i>1661, 1701, 1715</i> <i>1770, 1788</i>	<i>8</i>
<i>Germany (Prussia)</i>	<i>1683</i>	<i>1</i>
<i>Portugal</i>	<i>1560</i>	<i>1</i>
<i>Spain</i>	<i>1557, 1575, 1596,</i> <i>1607, 1627, 1647</i>	<i>6</i>

# *Serial default 1800-1899*

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*Development of international capital markets, together with emergence of a number of new nation states, led to an explosion in international defaults.*

*All of Latin America (except Brazil) defaulted between 1826-1828, this marks the beginning of the serial default pattern, and many defaults followed.*

# Serial default 1800-1899

Country	Dates			
	1800-1824	1825-1849	1850-1874	1875-1899
<i>Europe</i>				
<i>Austria-Hungary</i>	1802, 1805, 1811, 1816		1868	
<i>Greece</i>		1826, 1843	1860	1893
<i>Netherlands</i>	1814			
<i>Portugal</i>		1828, 1837, 1841, 1845	1852	1890
<i>Russia</i>		1839		1885
<i>Spain</i>	1809, 1820	1831, 1834	1851, 1867, 1872	1882
<i>Sweden</i>	1812			
<i>Latin America</i>				
<i>Argentina, 1816</i>		1827		1890
<i>Brazil, 1822</i>				1898
<i>Chile, 1818</i>		1826		1880
<i>Colombia, 1819</i>		1826	1850, 1873	1880
<i>Costa Rica, 1825</i>		1828	1874	1895
<i>Ecuador, 1830</i>		1826	1868	1894
<i>Honduras, 1821</i>		1828	1873	
<i>Mexico, 1821</i>		1827, 1833, 1844	1866	1898
<i>Peru, 1821</i>		1826		1876
<i>Uruguay, 1811</i>				1876, 1891
<i>Venezuela, 1830</i>		1826, 1848	1860, 1865	1892, 1898

# Serial Default 1900-2006

Country/date of independence <sup>1</sup>	Dates			
	1900-1824	1925-1949	1950-1974	1975-2006
<i>Africa</i>				
Algeria, 1962				1991
Cote D'Ivoire, 1960				1983, 2000
Egypt				1984
Kenya, 1963				1994, 2000
Morocco, 1956	1903			1983, 1986
Nigeria, 1960				1982, 1986, 1992, 2001, 2004
South Africa, 1910				1985, 1989, 1993
Zimbabwe, 1965			1965	2000
<i>Asia</i>				
China	1921	1939		
Japan		1942		
India, 1947			1958, 1969, 1972	
Indonesia, 1949			1966	1998, 2000, 2002
Myanmar, 1948				2002
Philippines, 1947				1983
Sri Lanka, 1948				1980, 1982

# Serial Default 1900-2006

<i>Country/date of independence</i> <sup>1</sup>	<i>Dates</i>			
	<i>1900-1824</i>	<i>1925-1949</i>	<i>1950-1974</i>	<i>1975-2006</i>
<b><i>Europe</i></b>				
<i>Austria</i>		<i>1938, 1940</i>		
<i>Germany</i>		<i>1932, 1939</i>		
<i>Greece</i>		<i>1932</i>		
<i>Hungary, 1918</i>		<i>1932, 1941</i>		
<i>Poland, 1918</i>		<i>1936, 1940</i>		<i>1981</i>
<i>Russia</i>	<i>1918</i>			<i>1991, 1998</i>
<i>Turkey</i>	<i>1915</i>	<i>1931, 1940</i>		<i>1978, 1982</i>
<b><i>Latin America</i></b>				
<i>Argentina</i>			<i>1951, 1956</i>	<i>1982, 1989, 2001</i>
<i>Brazil</i>	<i>1902, 1914</i>	<i>1931, 1937</i>	<i>1961, 1964</i>	<i>1983</i>
<i>Chile</i>		<i>1931</i>	<i>1961, 1963, 1966, 1972, 1974</i>	<i>1983</i>
<i>Colombia</i>	<i>1900</i>	<i>1932, 1935</i>		
<i>Costa Rica</i>	<i>1901</i>	<i>1932</i>	<i>1962</i>	<i>1981, 1983, 1984</i>
<i>Mexico</i>	<i>1914</i>	<i>1928</i>		<i>1982</i>
<i>Peru</i>		<i>1931</i>	<i>1969</i>	<i>1976, 1978, 1980, 1984</i>
<i>Uruguay</i>	<i>1915</i>	<i>1933</i>		<i>1983, 1987, 1990, 2003</i>
<i>Venezuela</i>				<i>1983, 1990, 1995, 2004</i>

# *Serial Default 1900-2006*

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- *The notion that countries outside Latin America and low-income Europe were the only ones to default during twentieth century is an exaggeration, to say the least.*

# The tally of default

## Examples of African and Asian countries

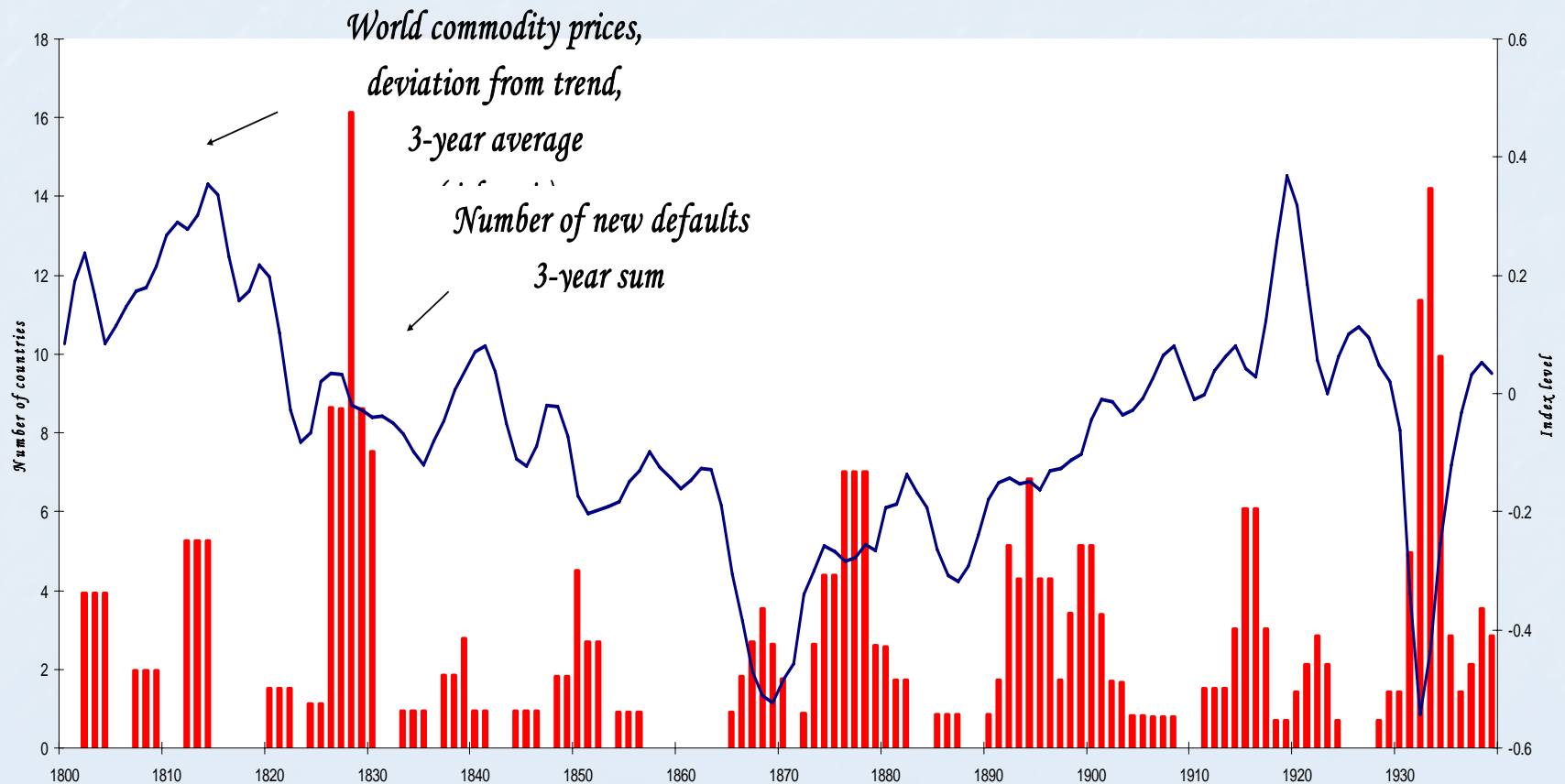
<i>Country</i>	<i>Year of Independence</i>	<i>Share of years in default or rescheduling since independence or 1800<sup>1</sup></i>	<i>Total number of defaults and/or reschedulings</i>
<i>Africa</i>			
<i>Egypt</i>	<i>1831</i>	<i>3.4</i>	<i>2</i>
<i>Kenya</i>	<i>1963</i>	<i>13.6</i>	<i>2</i>
<i>Morocco</i>	<i>1956</i>	<i>15.7</i>	<i>4</i>
<i>Nigeria</i>	<i>1960</i>	<i>21.3</i>	<i>5</i>
<i>South Africa</i>	<i>1910</i>	<i>5.2</i>	<i>3</i>
<i>Asia</i>			
<i>India</i>	<i>1947</i>	<i>11.7</i>	<i>3</i>
<i>Indonesia</i>	<i>1949</i>	<i>15.5</i>	<i>4</i>
<i>Japan</i>	<i>1590</i>	<i>5.3</i>	<i>1</i>
<i>Singapore</i>	<i>1965</i>	<i>0.0</i>	<i>0</i>
<i>Sri Lanka</i>	<i>1948</i>	<i>6.8</i>	<i>2</i>
<i>Thailand</i>	<i>1769</i>	<i>0.0</i>	<i>0</i>

# The tally of default

## Examples of European and Latin American countries

<i>Country</i>	<i>Year of Independence</i>	<i>Share of years in default or rescheduling since independence or 1800<sup>1</sup></i>	<i>Total number of defaults and/or reschedulings</i>
<b><i>Europe</i></b>			
<i>Austria</i>	<i>1282</i>	<i>17.4</i>	<i>7</i>
<i>France</i>	<i>943</i>	<i>0.0</i>	<i>8</i>
<i>Germany</i>	<i>1618</i>	<i>13.0</i>	<i>8</i>
<i>Greece</i>	<i>1829</i>	<i>50.6</i>	<i>5</i>
<i>Russia</i>	<i>1457</i>	<i>39.1</i>	<i>5</i>
<i>Spain</i>	<i>1476</i>	<i>23.7</i>	<i>13</i>
<i>Sweden</i>	<i>1523</i>	<i>0.0</i>	<i>0</i>
<b><i>Latin America</i></b>			
<i>Argentina</i>	<i>1816</i>	<i>32.5</i>	<i>7</i>
<i>Brazil</i>	<i>1822</i>	<i>25.4</i>	<i>9</i>
<i>Chile</i>	<i>1818</i>	<i>27.5</i>	<i>9</i>
<i>Colombia</i>	<i>1819</i>	<i>36.2</i>	<i>7</i>
<i>Mexico</i>	<i>1821</i>	<i>44.6</i>	<i>8</i>
<i>Peru</i>	<i>1821</i>	<i>40.3</i>	<i>8</i>
<i>Venezuela</i>	<i>1830</i>	<i>38.4</i>	<i>10</i>

# Global cycles and external default: Commodity prices and new external defaults: 1800-1939



*Global cycles and external default:*

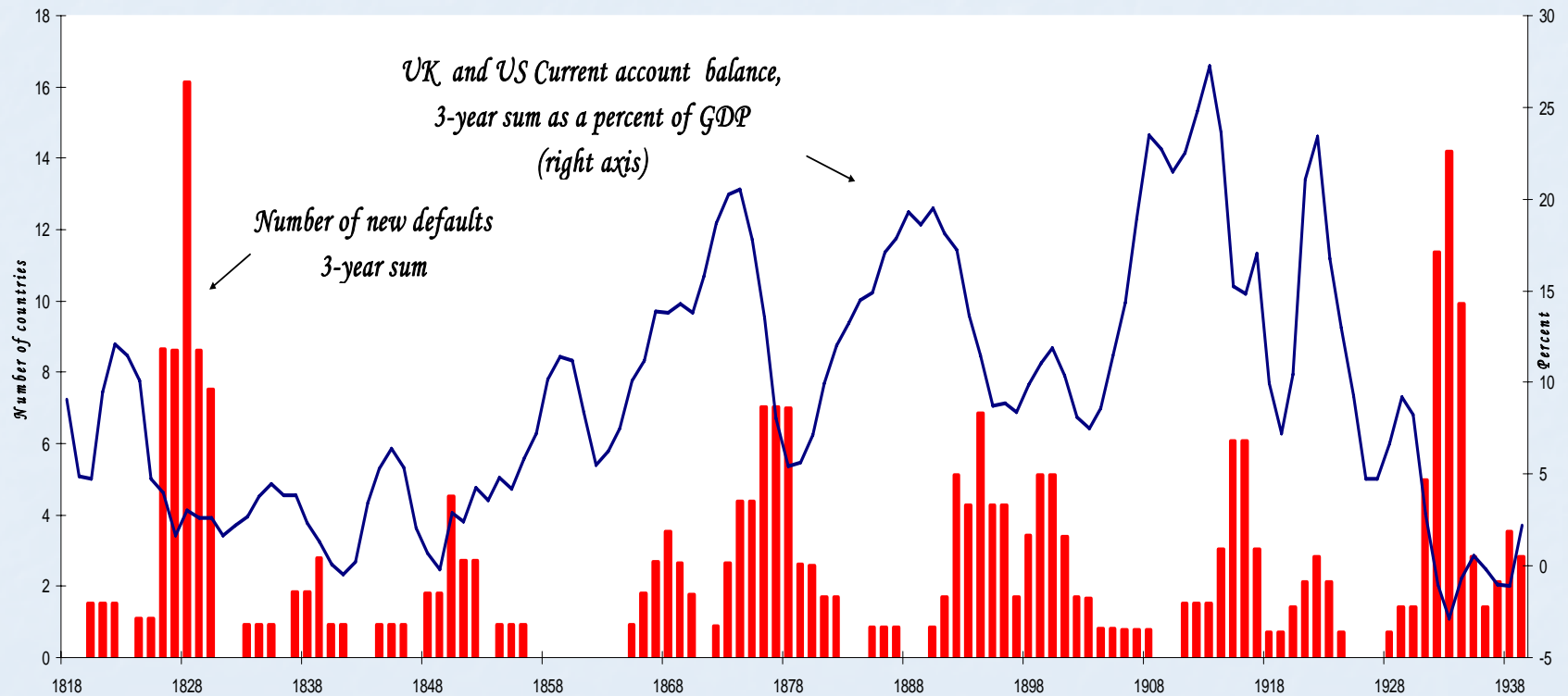
*Commodity prices and new external defaults, 1800-1939*

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- *Emerging markets borrowing tends to be extremely procyclical.*
- *Spikes in commodity prices were almost invariably followed by waves of new sovereign defaults—the relationship is less tight following WWII*

# Global capital flow cycles and external default: Current account balance of financial center and new defaults

*Net Capital Flows from the Financial Center and Default  
1818-1968*



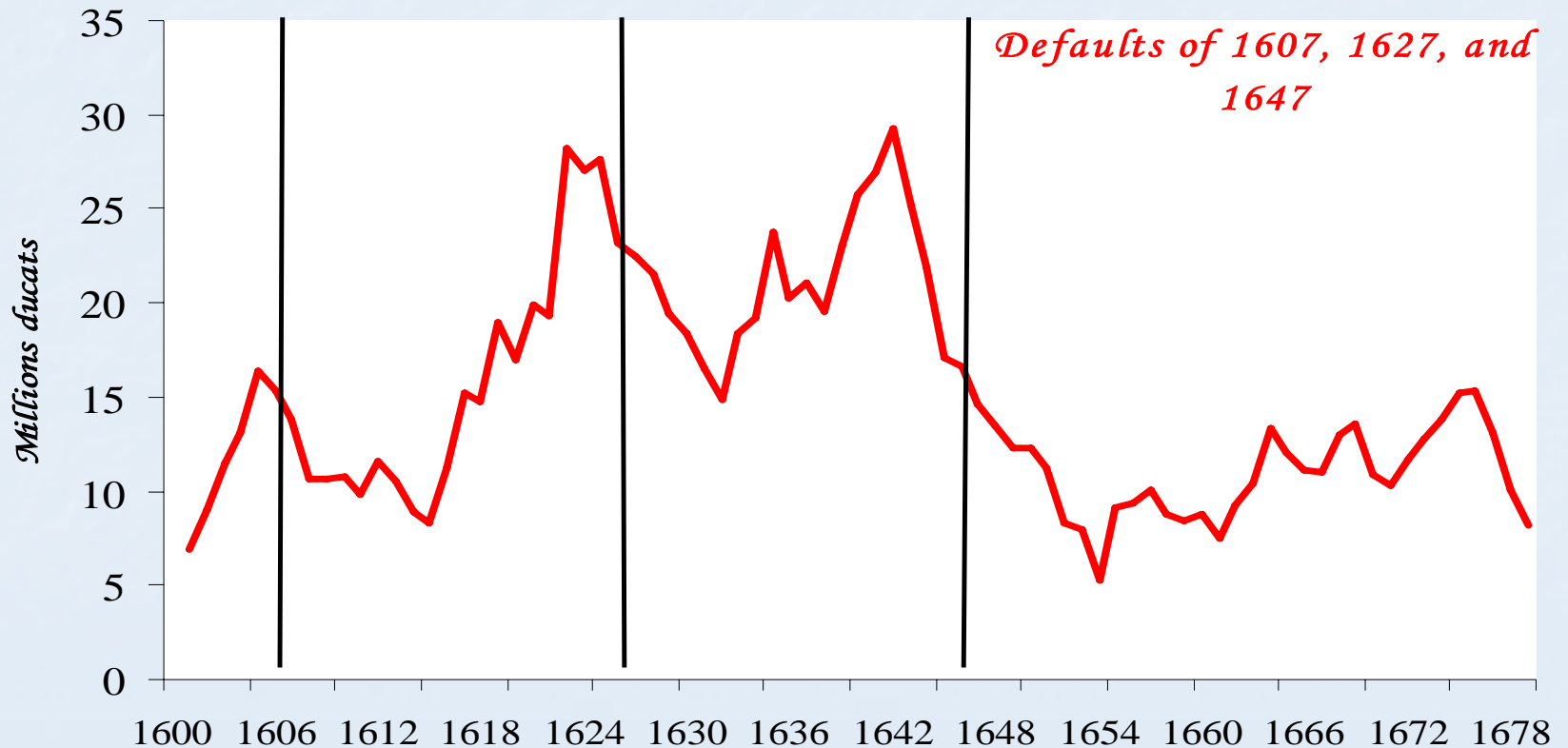
## *Global capital flow cycles and external default (continued)*

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- *Defaults are also quite sensitive to global capital flow cycle. When flows from the financial center drop precipitously (a Calvo sudden stop), more countries slip into default.*

# *The capital inflow-default cycle has a long history...*

*Spain: Defaults and Loans to the Crown, 1601-1679 (3-year moving sum)*



# *Crisis at the center: London 1825*

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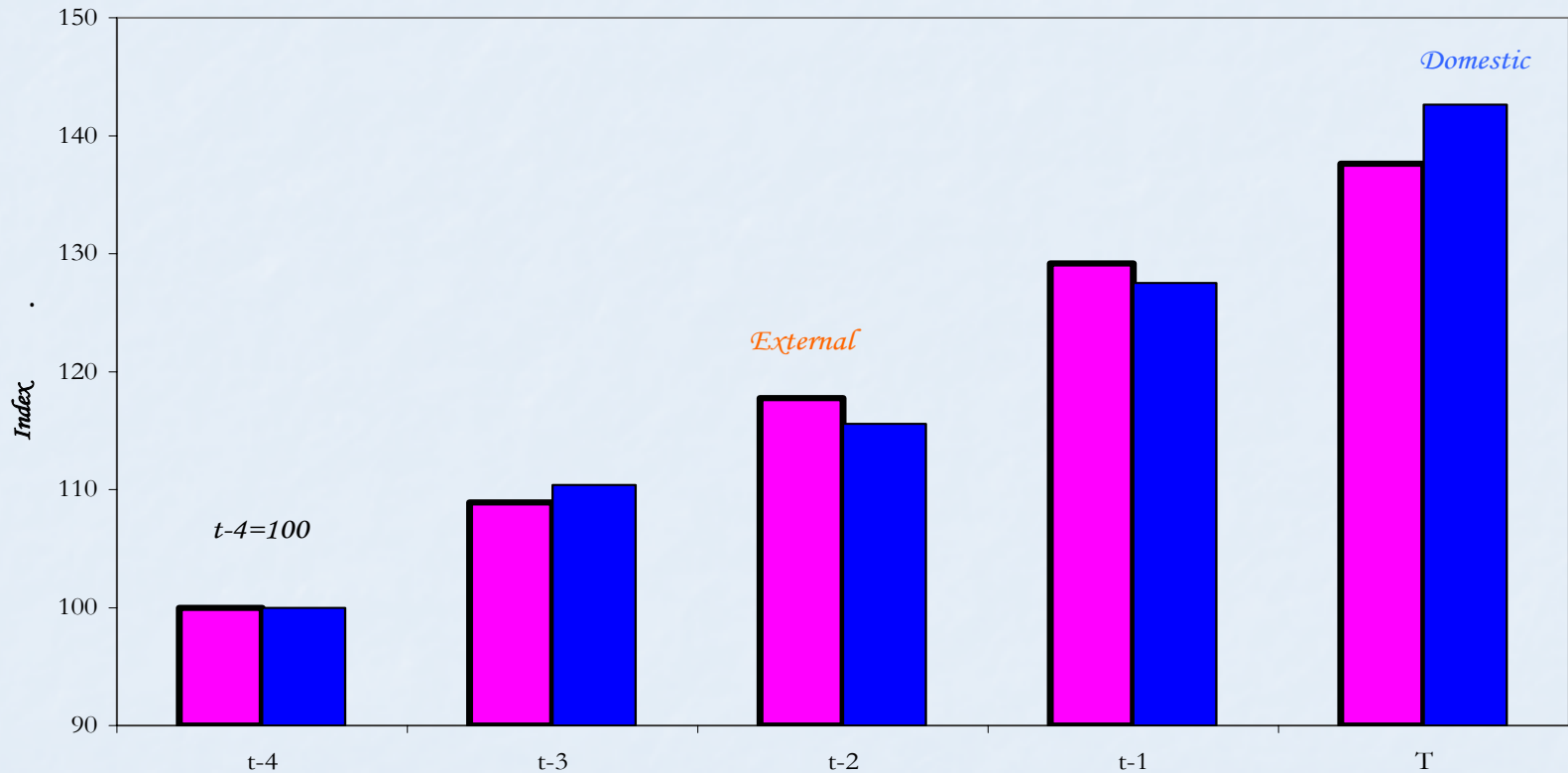
<i>Origin of the shock: country and date</i>	<i>Nature of common external shock</i>	<i>Contagion mechanisms</i>	<i>Countries affected</i>
<i>London, 1825</i>	<i>Major commercial and financial crises in London during 1825-26, which spread to continental Europe. Trade and capital flows with Latin America plummet.</i>	<i>Upon <b>Peru's</b> 1826 default, London bond holders immediately become concerned about other <b>Latin American countries'</b> ability to service their debts; bond prices collapse.</i>	<i>Chile and Gran Colombia (which comprised today's Colombia, Ecuador, and Venezuela) default later in the year. By 1828, all of Latin America, with the exception of Brazil, had defaulted.</i>

# *Crisis at the center: German and Austrian stock markets collapse, May 1873*

<i>Origin of the shock: country and date</i>	<i>Nature of common external shock</i>	<i>Contagion mechanisms</i>	<i>Countries affected</i>
<i>German and Austrian stock markets collapse, May 1873</i>	<i>French war indemnity paid to Prussia in 1871 leads to speculation in Germany and Austria. As far as the periphery is concerned, the world recession (1873-1879) results in a dramatic fall in trade and capital flows originating in the core.</i>	<i>Capital flows to the U.S. fall in the wake of German crisis . Ensuing world recession (1873-1879) leads to debt servicing problems in the periphery through reduced exports and tax revenues. Initial defaults in small Central American nations in January 1873 leads to a fall in bond prices.</i>	<i>Crisis spreads quickly to Italy, Holland, and Belgium, leaps the Atlantic in September and crosses back again to involve England, France, and Russia. By 1876, the Ottoman Empire, Egypt, Greece, and 8 Latin American countries had defaulted.</i>

# Domestic and external debt on the eve of external default

*The Runup in Domestic and External Debt  
on the Eve of Default, Average Default Episode: 1800-2006*



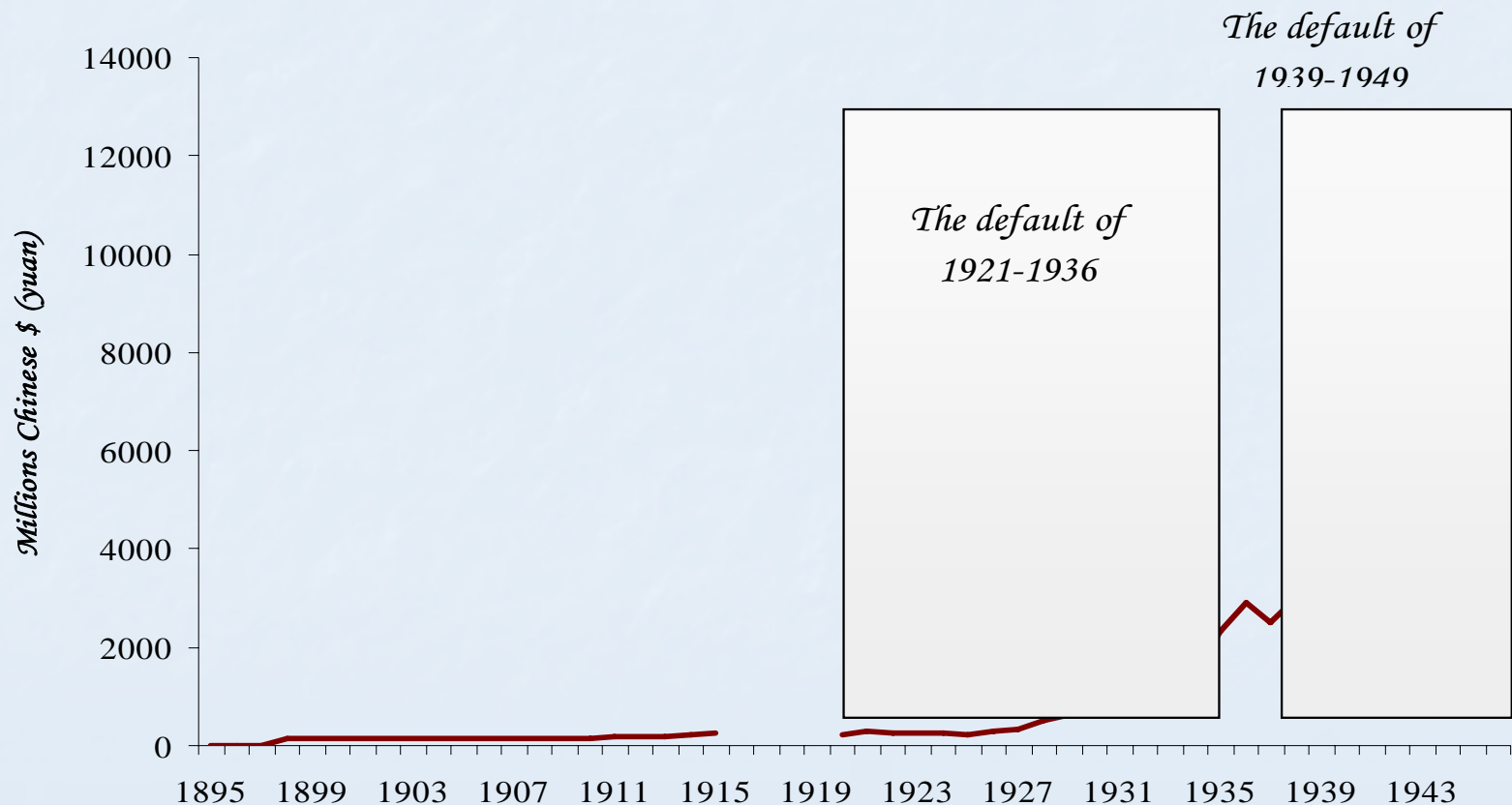
## *Domestic and external debt on the eve of external default*

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- *Both domestic and external debt rise rapidly, at about the same rates, just before the default.*
- *Both types of debt are a claim on revenues*

# *Domestic debt increases even more rapidly after the external default, China is an example*

*China: Domestic Public Debt Outstanding, 1895-1946*



# *Moving on to other forms of default*

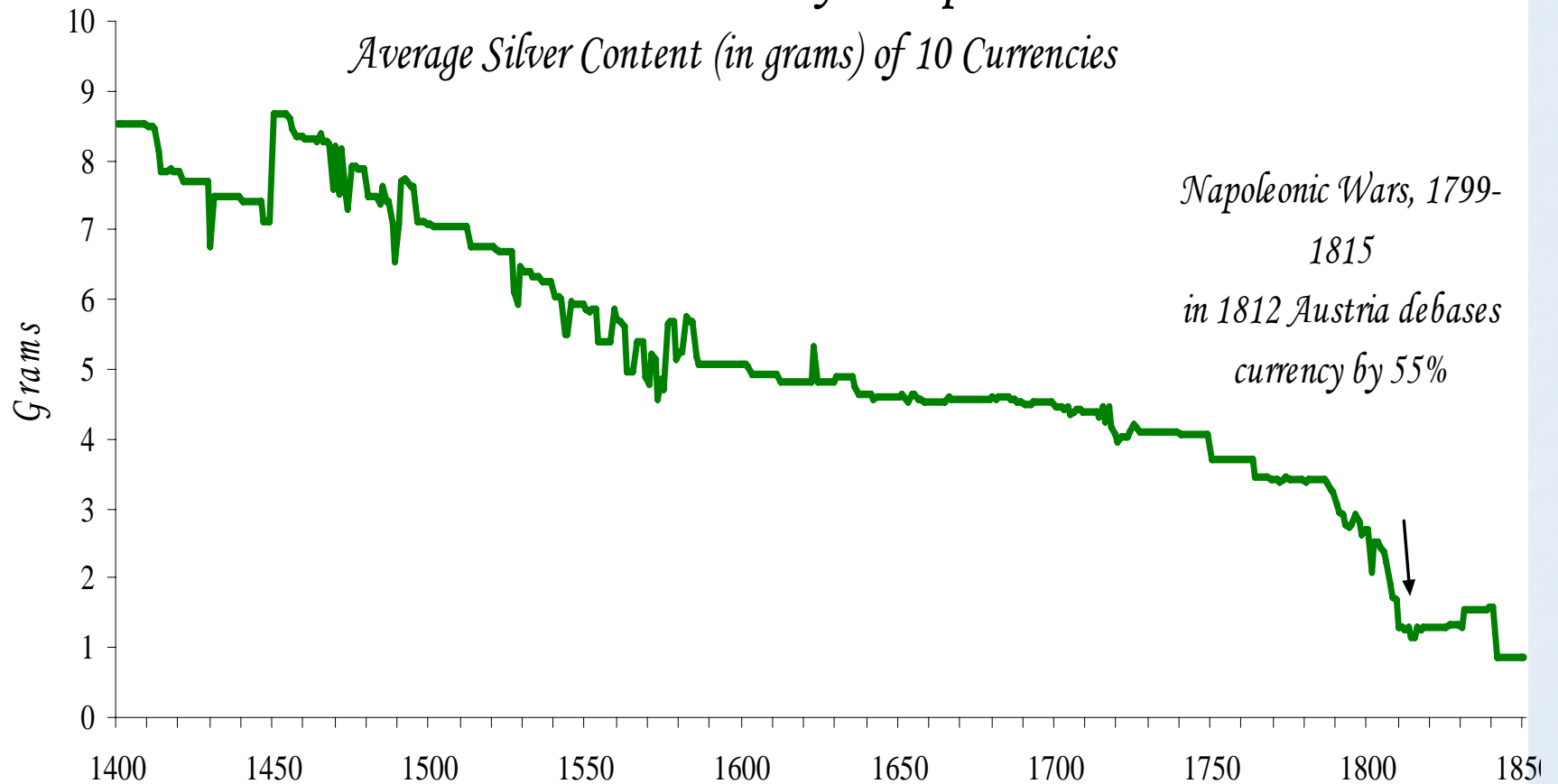
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- *Currency debasements*
- *Inflation*
- *Modern currency crashes*

# Default through currency debasement: 1400-1850

## The March Toward Fiat Money: Europe 1400-1850

Average Silver Content (in grams) of 10 Currencies



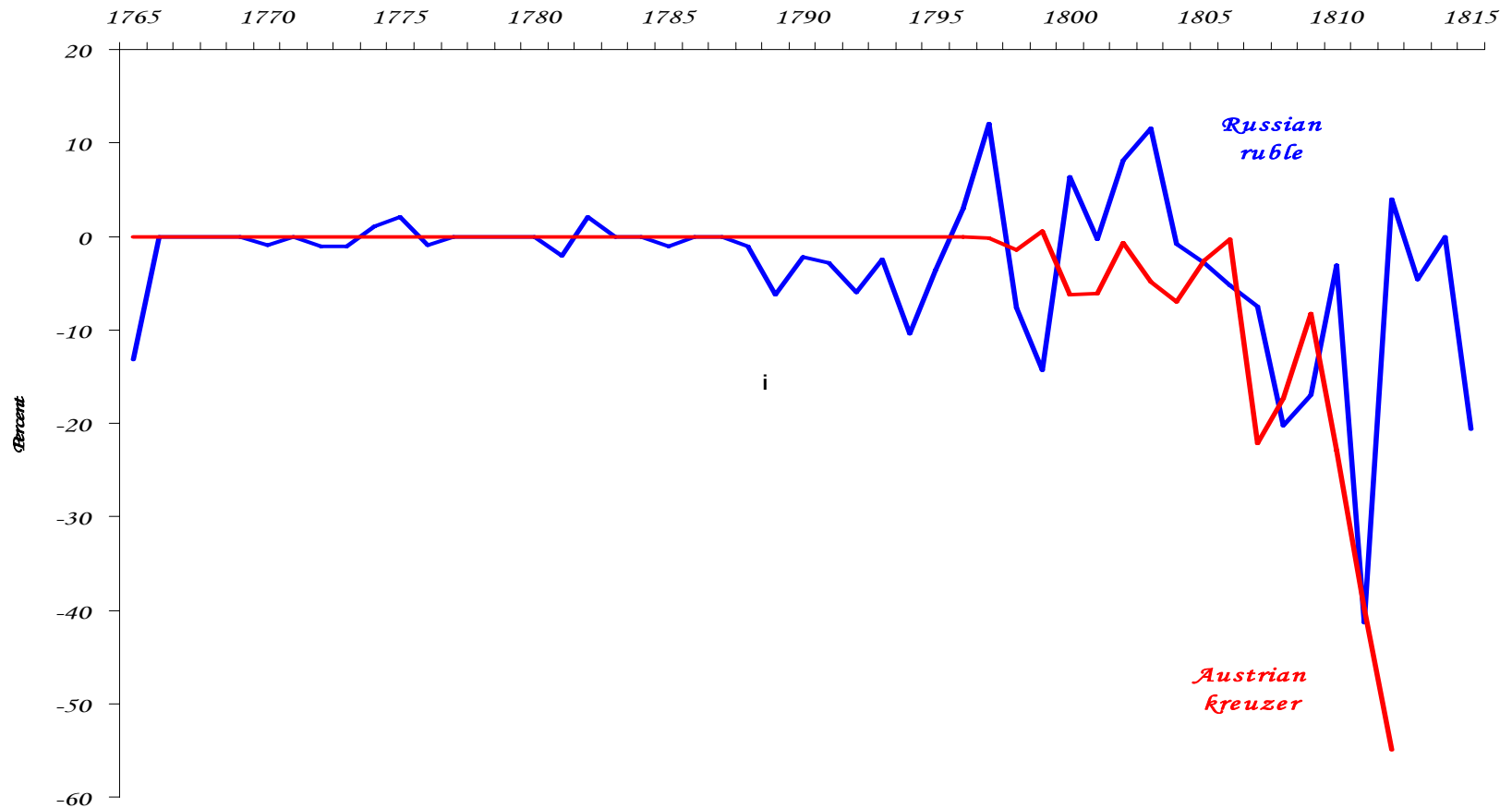
## *Default through currency debasement: 1400-1850*

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- *A government that chooses to default on its debts can hardly be relied on preserve the value of its country's currency.*
- *Debasement was a preferred method of financing wars—an illustration from the Napoleonic Wars*

# Currency debasement during the Napoleonic Wars

*Figure A1. Changes in the Silver Content of the Currency: Austria and Russia During the Napoleonic Wars, 1799-1815*



# *Inflation*

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- *Most of the countries in Asia and Africa have experienced waves of high and very high inflation.*
- *The notion that Asian countries have been immune from Latin American style high inflation is just as naïve as the notion that Asian countries were immune from default crises up until the late 1990s Asian financial crisis.*

# Default through inflation: 1500-2006

## “Default” through Inflation: Asia, Europe, and the “New World” 1500-1799

Country	Period covered	Share of years in which inflation exceeded		Number of hyperinflations <sup>1</sup>	Maximum annual inflation	Year of peak inflation
		20 percent	40 percent			
<i>Asia</i>						
China	1639-1799	14.3	6.2	0	116.7	1651
Japan	1601-1650	34.0	14.0	0	98.9	1602
Korea	1743-1799	43.9	29.8	0	143.9	1787
<i>Europe</i>						
Belgium	1501-1799	25.1	11.0	0	185.1	1708
France	1501-1799	12.4	2.0	0	121.3	1622
Germany	1501-1799	10.4	3.4	0	140.6	1622
Italy	1501-1799	19.1	7.0	0	173.1	1527
Netherlands	1501-1799	4.0	0.3	0	40	1709
United Kingdom	1501-1799	5.0	1.7	0	39.5	1587
<i>The “New World”</i>						
Argentina	1777-1799	4.2	0.0	0	30.8	1780
Brazil	1764-1799	25.0	4.0	0	33.0	1792
Chile	1751-1799	4.1	0.0	0	36.6	1763
Mexico	1742-1799	22.4	7.0	0	80.0	1770
Peru	1751-1799	10.2	0.0	0	31.6	1765
United States	1721-1799	7.6	4.0	0	192.5	1779

# Default through inflation: 1800-2006

## “Default” through Inflation: Asia and Africa 1800-2006

Country	Beginning of period covered	Share of years in which inflation exceeded		Number of hyperinflation years <sup>1</sup>	Maximum annual inflation	Year of peak inflation
		20 percent	40 percent			
<i>Africa</i>						
Angola	1915	53.3	44.6	4	4,416.0	1996
Morocco	1940	14.9	4.5	0	57.5	1947
Nigeria	1940	22.6	9.4	0	72.9	1995
South Africa	1896	0.9	0.0	0	35.2	1919
Zambia	1943	29.7	15.6	0	183.3	1993
Zimbabwe	1920	23.3	14.0		1,216.0	2006
<i>Asia</i>						
China	1800	19.3	14.0	3	1,579.3	1947
India	1801	7.3	1.5	0	53.8	1943
Indonesia	1819	18.6	9.6	1	939.8	1966
Japan	1819	12.2	4.8	1	568.0	1945
Korea	1800	35.3	24.6	0	210.4	1951
Malaysia	1949	1.7	0.0	0	22.0	1950
Myanmar	1872	22.2	6.7	0	58.1	2002
Philippines	1938	11.6	7.2	0	141.7	1943
Singapore	1949	3.4	0.0	0	23.5	1973
Thailand	1821	14.0	7.5	0	78.5	

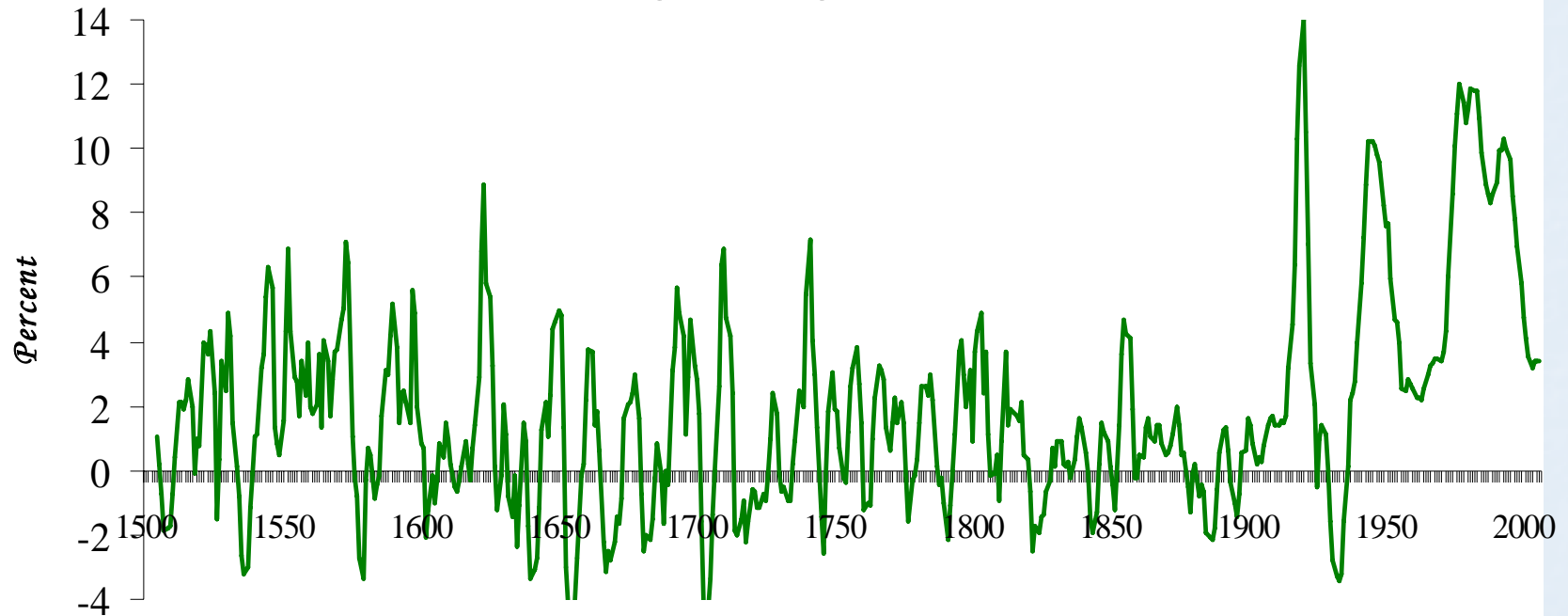
# Default through inflation: 1800-2006

*“Default” through Inflation: Europe, Latin America, North America and Oceania, 1800-2006*

Country	Beginning of period covered	Share of years in which inflation exceeded		Number of hyperinflation years <sup>1</sup>	Maximum annual inflation	Year of peak inflation
		20 percent	40 percent			
<b>Europe</b>						
<i>Austria</i>	1800	20.8	12.1	2	1,733.0	1922
<i>France</i>	1800	5.8	1.9	0	74.0	1946
<i>Germany</i>	1800	9.7	4.3	2	2.22E+10	1923
<i>Greece</i>	1834	13.3	5.2	4	3.02E+10	1944
<i>Hungary</i>	1924	15.7	3.6	2	9.63+26	1946
<i>Poland</i>	1800	28.0	17.4	2	51,699.4	1923
<i>Russia</i>	1854	35.7	26.4	8	13,534.7	1923
<i>Spain</i>	1800	3.9	1.0	0	102.1	1808
<b>Latin America</b>						
<i>Argentina</i>	1800	24.6	15.5	4	3,079.5	1989
<i>Bolivia</i>	1937	38.6	20.0	2	11.749.6	1985
<i>Brazil</i>	1800	28.0	17.9	6	2,947.7	1990
<i>Chile</i>	1800	19.8	5.8	0	469.9	1973
<i>Mexico</i>	1800	42.5	35.7	0	131.8	1987
<i>Uruguay</i>	1871	26.5	19.1	0	112.5	1990
<b>North America</b>						
<i>Canada</i>	1868	0.7	0.0	0	23.8	1917
<i>United States</i>	1800	1.0	0.0	0	24.0	1864
<b>Oceania</b>						
<i>Australia</i>	1819	4.8	1.1	0	57.4	1854
<i>New Zealand</i>	1858	0.0	0.0	0	17.2	1980

# *Default through inflation: 1500-2006*

*Median Inflation Rate All Countries  
5-Year Moving Average: 1500-2006*



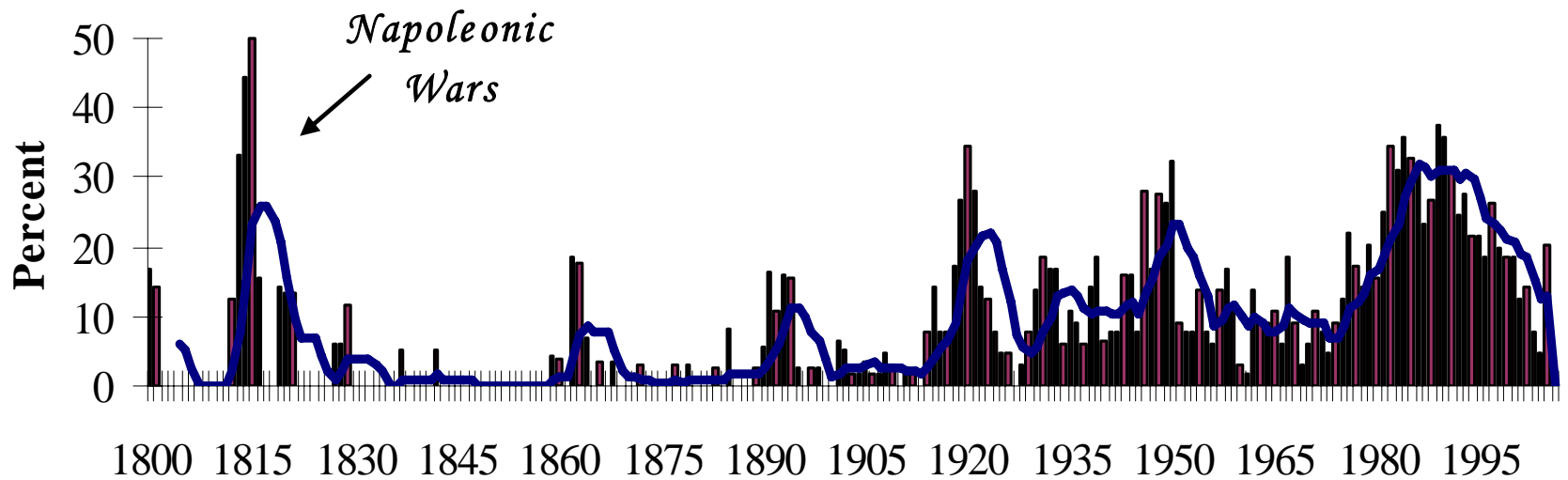
# *Default through inflation: 1500-2006*

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- *Clear inflationary bias throughout history. Starting the twentieth century, inflation spikes radically.*
- *Fiat money has arrived...*

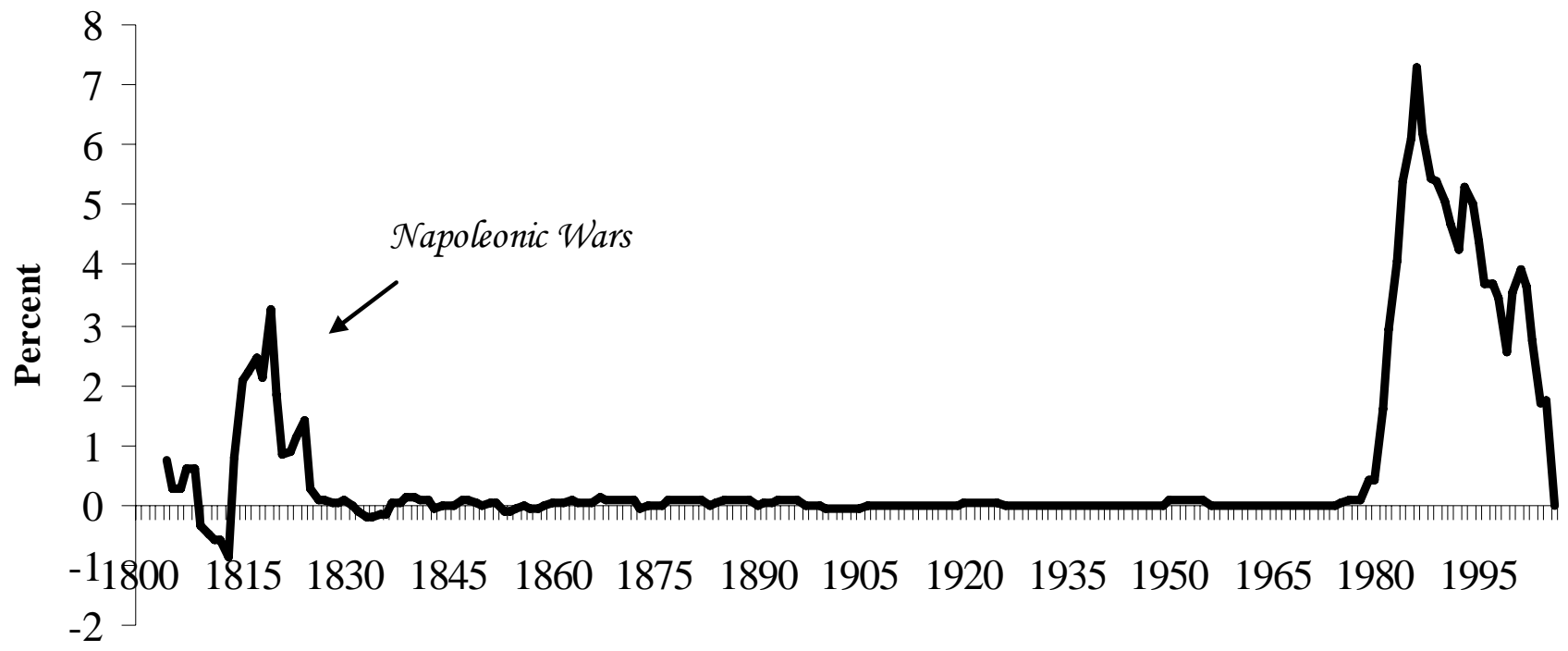
# Modern Exchange rate crashes: 1800-2006

*Currency Crashes: Share of Countries with an Annual Depreciation Greater than 15 Percent: 1800-2006*



# Modern Exchange rate crashes: 1800-2006

*Median Annual Depreciation All Countries  
5-Year Moving Average: 1800-2006*



# *Modern Exchange rate crashes: 1800-2006*

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- *Inflation crises and exchange rate crises travel hand-in-hand.*
- *There is a significantly higher incidence of crashes and larger median changes in the more modern period.*

# *Varieties of Crisis: A composite measure of turmoil*

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- *Five Varieties of Crisis*

  - External default.*

  - Domestic default.*

  - Banking crisis.*

  - Currency crashes and debasements*

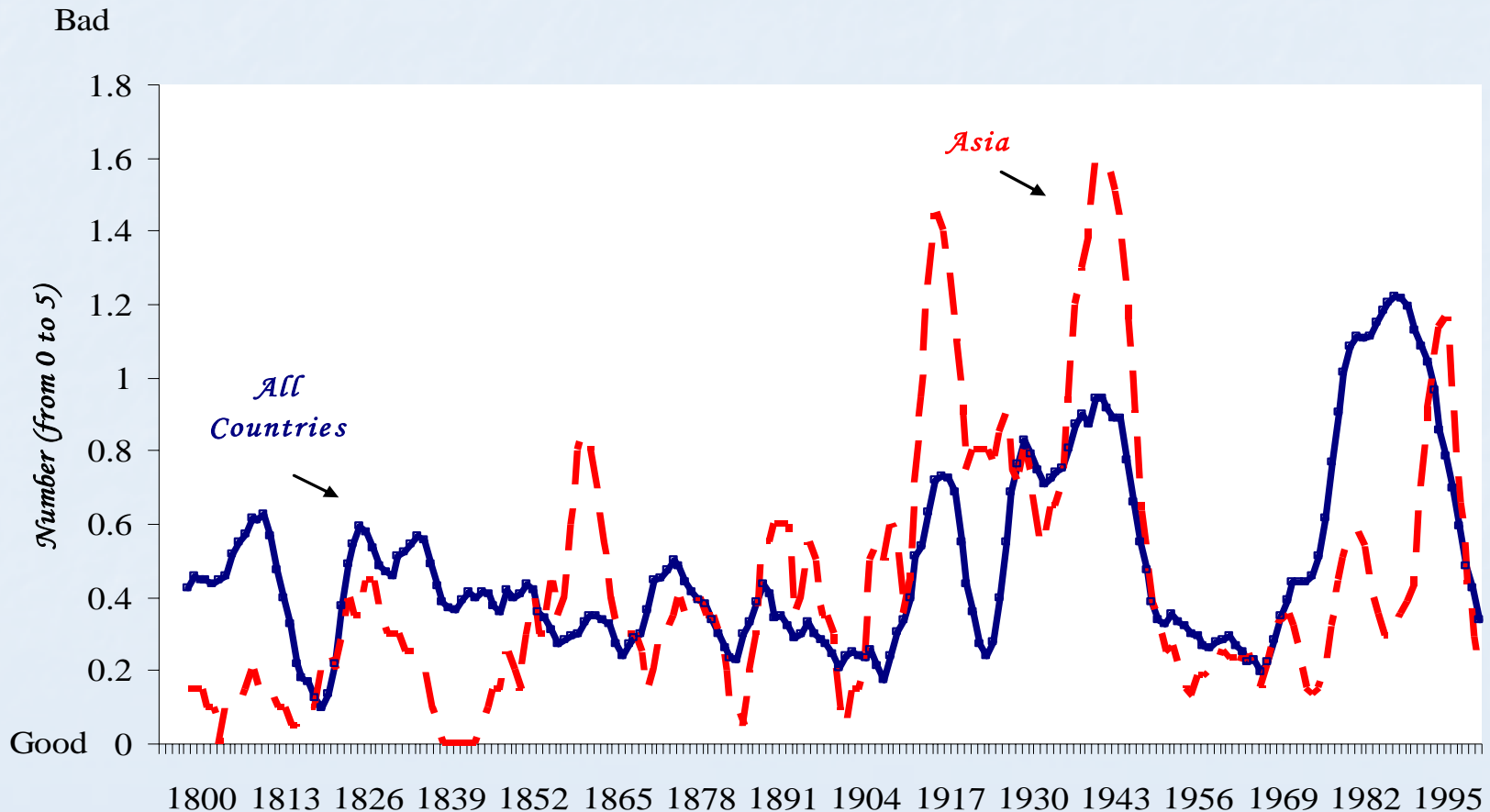
  - Inflation outbursts*

- *Crisis dummy takes on the value of 1 when there is a crisis and zero otherwise—construct a country-by-country yearly index (0 to 6)*
- *Taking simple averages across all countries in a particular region, we construct a composite index of financial instability that is multidimensional.*

# Varieties of Crisis

## Asia and the world: 1800-2006

*Variety of Crises, Asia: 1800-2006*  
*Average Number of Crises per Country, 5-year Average*



# *Varieties of Crisis*

## *Asia and the world: 1800-2006*

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*“There is nothing new except what is forgotten.”*

*Mlle. Rose Bertin*

- *The 1997-1998 crisis was not the first, and the region had several protracted bouts of economic instability by international standards of the day.*

# Conclusions

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- *Our principal aim was to illustrate the core features of the database, trying to bring out regularities that can only be gained from such a sweeping historical database.*
- *Among other things, we show that the popular notion that today's emerging markets are breaking new ground in their extensive reliance on domestic debt markets, is hardly new.*

# Conclusions

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- *This brings us to—the “this time is different syndrome.” There is a view today that both countries and creditors have learned from their mistakes. Thanks to better-informed macroeconomic policies and more discriminating lending practices, it is argued, the world is not likely to again see a major wave of defaults. Indeed, an often-cited reason these days why “this time it’s different” for the emerging markets is that governments there are relying more on domestic debt financing for the first time...*

# Conclusions

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- *Such celebration may be premature. Capital flow/default cycles have been around since at least 1800- if not before.*
- *This brings us to a central policy question to which the answer remains elusive.*
- *How do countries graduate from a history of serial default?*