The Evolution of Sovereign Debt Default: From the Thirteenth Century to the Modern Era*

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> "*During the years 1822 to 1825 the revolted Spanish American colonies besieged London for loans … The second period of widespread default fell in the [eighteen] seventies and brought an abrupt end to a foreign loan mania of unprecedented intensity … Again the worst abuses occurred in the negotiation and marketing of loans for weak Latin-American Republics*."
>
> (Wynne, 1935, pp. 474-475)

> "*Amid massive and synchronous financing needs across a broad swath of countries, there is brewing in the background a growing need for debt restructurings in numbers not seen since the debt crisis of the 1980s*."
>
> (Bulow et al., 2020, p. 14)

ABSTRACT

An examination of sovereign defaults over the long term, from 1294 to 2008, shows that serial defaults are far rarer than the much-ballyhooed experience of the 1980s suggests. The only mass default in Europe since 1294 took place in the early nineteenth century during the Napoleonic Wars. The majority of the serial defaults date from after 1975, primarily in Africa, Asia, and Latin America, and were heavily concentrated in the 1980s. These multiple defaults, like some earlier default waves in Latin America, reflected the experiences of newer nation states and were also linked to the inherent vulnerability of periphery countries to events in well-established,

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major financial centers. This was in sharp contrast to the earlier defaults in Europe and appears largely to be an aberration when viewed against the backdrop of the overall historical record.

1. Introduction and Overview

This paper traces the evolving nature of sovereign default from the early instances in medieval Europe to the more recent episodes in Latin America and elsewhere. The overall record, from the first recorded sovereign default in 1294 up to the global financial crisis of 2008, reveals that serial default is far rarer than the much-ballyhooed events of the 1980s suggest. The only mass default in Europe's long record, dating back to 1294, took place during the Napoleonic Wars (1800-1815). The majority of the serial defaults occurred only after 1975 and were heavily concentrated in the "Lost Decade" of the 1980s. The developments in that period were quite unlike the earlier defaults in Europe and also contrast with what we have seen since the 1980s. Dufrénot and Paret (2018), for example, demonstrate the relative rarity of serial defaulters among emerging market countries even over a period (1980-2015) that includes the large number of individual defaults of the 1980s and the aftermath of the global financial crisis of 2008-2009.

As shown in this paper, waves of defaults in which one Latin American country after another is unable to honor its debts in the aftermath of shocks (Marichal, 1989; Sturzenegger and Zettelmeyer, 2006) are certainly not a feature of the earlier historical record. The causes of default are also different. Kaminsky and Vega-García (2016) estimate that 63% of Latin American defaults after 1820 were actually triggered by problems emanating from the financial centers of the time and associated with international collapses of liquidity.[1]

[1] However, for the post-1980 period, Efremidze et al. (2017) find that only approximately half of the capital flow reversals and associated "sudden stops" were preceded by surges in inflows. See also Marichal (1989), Pettis (2001), Reinhart, Rogoff and Srivastava (2003), Reinhart and Rogoff (2005, 2009), and Sturzenegger and Zettelmeyer (2006) for extensive analysis of the multiple waves of capital flows to Latin America that ended

Reinhart, Rogoff and Srivastava (2003) and Reinhart and Rogoff (2009) further argue that, even if precipitated by exogenous factors, default waves in Latin America have been accompanied by serial dependence which, in some cases, stretches back for centuries. Such serial correlation stems from the way that past credit history impacts a country's ability to borrow in the future, leaving it more vulnerable to default than countries with a cleaner historical record.

The episodes of serial default and default waves not only contrast with the earlier record of sovereign default but also reflect a transition from defaults by the major powers of yesteryear to those by more peripheral nations in the modern era. All defaults before the nineteenth century took place in Europe; Latin America's defaults start only in 1826. While European defaults involve a total of 30 countries, the European experience before the First World War supports the wave theory only during the Napoleonic Wars, a period dominated by war-driven defaults. The early record is marked, however, not only by the concentration of defaults among the traditional major European powers, but also by an evolving and improved fiscal system that largely eliminated defaults amongst this core group in the post-Napoleonic era. For example, France, the sole European serial defaulter of the eighteenth century, did not default at all in the nineteenth century following the Napoleonic Wars. The limited number of European serial defaulters after the Napoleonic Wars – Portugal, Spain and (to some extent) Russia – had never defaulted in the eighteenth century prior to the French Revolution and Napoleonic era, and only Spain had experienced repeated defaults in the sixteenth and seventeenth centuries. The post-Napoleonic serial defaults by Portugal and Spain were themselves associated with external conflict or with civil wars, revolutions, coups, attempts to recover colonies, etc. One of Russia's two defaults was associated with the Crimean War.

England was both the earliest country to default and the first to

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in defaults. For earlier work similarly identifying wave patterns in data on defaults, see Smith (1920) and the discussion in Macdonald (2003).

end the practice for good. Following the initial default by Edward I in 1294, England defaulted three more times over a span of 300 years, with an average of 100 years between defaults. After the sixteenth century, England never again declared a full default. Meanwhile, Spain defaulted eight times between 1557 and 1680 (average interval of 17.6 years), after which it did not default for 140 years before defaulting five times in 1820-1882 (12.4-year average interval), and then stopped. France defaulted eleven times between 1558 and 1812 (on average, every 23.1 years), then stopped. Although default-generating processes within the core group of European countries were far from uniform, as a group their experience contrasts sharply with the more recent record. Outside of Europe, 12 of 28 Latin American countries had multiple defaults during 1975-2008, with an average of just 8.71 years between episodes; and 16 of 59 African and Asian countries had multiple defaults occurring, on average, every 7.32 years.

A dramatically changing economic and political landscape saw defaults spread beyond the original group of long-established European countries after 1820. Just when capital mobility was embarking on its explosive growth over the period 1815-1914, revolutions in Latin America in 1810-1820 caused Spain and Portugal to lose 20 major dependencies there. These 20 newly-independent Latin American states almost doubled the number of countries in the world connected through Western financial markets after 1820 – eligible for sovereign borrowing and, thus, potential default. Turning to another region, between 1820 and 1912, rebellions cost the Ottoman Empire five dependencies in the Balkans. And African and Asian nations gaining independence from colonial rule between the 1950s and the mid-1970s added another 38 countries to the default record. Whereas only ten countries – all of them European – had defaulted up to 1815, 115 countries had done so by 2008. Of the 336 total defaults this paper considers, 233 occurred in Latin America, Africa or Asia. And of the 141 in 1975-2008 alone, 123 took place in those regions.

The more recent experience is unlike the default wave of the 1820s in Latin America, which was driven by wars, civil wars and

rebellions, as well as by financial crisis. As noted by Wynne (1935, p. 474): "The young republics had not yet succeeded in establishing internal order or settled government, while they were so feeble and impoverished that even their ability to maintain their independence was still in doubt." The more recent defaults in Africa, Asia, Latin America and newer European states are qualitatively different from both the nineteenth-century experience and the even earlier, war-driven European defaults.[2] These distinctions are explored in more detail in the next section's comparative examination of the early sovereign default record. Case studies of Spain and France, the only two clear serial defaulters of the earlier era, follow in Section 3. Section 4 assesses the post-1945 default record and its differences with respect to the past. The conclusions of our investigation and its implications are set out in Section 5.

2. Early Sovereign Defaults in Perspective

In one of the earlier discussions of sovereign debt concerns, Smith (1776, Volume 2, p. 465) bemoans deficit finance as a practice begun by Genoa and Venice and then adopted by sixteenth-century Spain. He does, however, acknowledge the advantages of England's stronger tax system compared with that of countries like France and Spain. Wartime emergency was the typical trigger event in the early European defaults. The extent of the financial pressure at such times is reflected in the disparity between peacetime interest rates on long-term loans and the rates charged for short-term credit in times of crisis. Bell, Brooks and Moore (2009) find that peacetime borrowing at rates of around 15% sometimes had to be supplemented in England by short-term borrowing at rates as high as 150% during the period 1272-1340. In the face of such high interest rates, English monarchs

[2] The length of time spent in default is another source of distinction. Many early defaults lasted a decade or more (Purcell and Kaufman 1993). Tomz and Wright (2005) find that, across the nineteenth and twentieth centuries, approximately half of all defaults lasted 12 years or more (see also Marichal 1989 on the Latin America defaults).

found it easier to default than to repay after the wars of that period had ended. Another factor, evident in England's subsequent default in the 1440s, concerned parliament's unwillingness to accede to the monarch's funding requests and grant levels of taxation commensurate with the high levels of expenditure. Brayson (2020, p. 64) concludes: "It was not until the 1480s that subsequent regimes, faced with a re-emergence of very serious cash-flow problems rooted in ballooning expenditures, but operating in more propitious socioeconomic circumstances, resurrected the case for regularised lay taxation and laid the groundwork for an emergent 'tax state.'"

Even when we consider the later period, when sovereign defaults largely involved peripheral rather than core countries, such defaults remain relatively rare. Tomz and Wright (2013) find the overall probability of a sovereign borrower defaulting in a given year to be just 1.7% over the post-1820 period; the probability rises to 3% for the sub-set of countries that defaulted at least once.[3] However, as with Borensztein and Panizza's (2008) large sample of 296 defaults worldwide over the years 1824-2004, the pre-1820 European defaults are omitted.[4] The overall default record from 1294 through 2008 is set out in Table 1a[5] and the causes of default and available default end dates are reported in Table 1b. The dominant role of war in the earlier defaults primarily reflects the prevalence of external conflicts during the 1294-1799 period, followed by a mix of internal and external conflicts during the early nineteenth century, including revolutions in both Europe and South America and the Napoleonic Wars. The post-1820 period begins to display a more mixed pattern, with budgetary and economic factors coming into play alongside

[3] This higher estimate is also based on excluding the 1945-1980 period, which the authors justify on the grounds of stringent restrictions on capital flows under the Bretton Woods system.

[4] See also Reinhart, Rogoff and Savastano (2003) and Reinhart and Rogoff (2005, 2009) for more wide-ranging coverage of global defaults. Oosterlinck (2013) offers a broad historical treatment of sovereign default and the evolving market for sovereign debt.

[5] We end our sample prior to the global financial crisis, whose aftereffects are still being worked out.

TABLE 1A
Sovereign Defaults from 1294 to 2008[1]

	1294-1599	1600-1699	1700-1799	1800-1819	1820-1913	1914-1974	1975-2008
Europe							
Old Europe				Revolution & Napoleonic Wars	Century of Great-Power Peace	Depression, 2 World Wars	Decoloni-zation
England	1294, 1340, 1442, 1594	—	—	—	—	—	—
France	1558	1604, 1624, 1648, 1661	1700, 1713, 1720, 1770, 1788	1812	—	—	—
Spain	1557, 1575, 1596	1607, 1627, 1647, 1653, 1680	—	—	1820, 1831, 1851, 1867, 1882	—	—
Portugal	1560	—	—	—	1834, 1850, 1892	—	—
Austria	—	—	—	1802, 1805, 1811, 1816	1868[4]	1914, 1932, 1938, 1940, 1941	—
Germany	—	—	—	—	—	1932, 1939	—
Prussia	—	1683	—	1807, 1813	—	—	—
Westphalia	—	—	—	1812	—	—	—
Hesse	—	—	—	1814	—	—	—
Schleswig-Holstein	—	—	—	—	1850	—	—
East Germany	—	—	—	—	—	1949	
Denmark	—	—	—	1811			

(continued)

TABLE 1a
Sovereign Defaults from 1294 to 2008[1]

	1294-1599	1600-1699	1700-1799	1800-1819	1820-1913	1914-1974	1975-2008
Sweden	—	—	—	1812			
Holland	—	—	—	1814			
Russia	—	—	—	—			
Italy	—	—	—	—	1839, 1885	1918, 1940	1991, 1998
[Σ Defaults = 60]	9	10	5	12	12	10	2
Balkans and Turkey							
Turkey					1875	1915, 1931, 1940, 1959, 1961	1978, 1982
Greece					1826, 1843, 1860, 1893	1932	
Yugoslavia/Serbia					1895	1933	1983, 1992
Bosnia-Herzegovina							1992
Croatia							1992
Macedonia							1992
Bulgaria					1886, 1891	1915, 1932	1990
Romania					—	1915, 1933	1982, 1998
Albania						—	1990, 1992
Post Versailles							
Hungary						1932, 1940, 1941	—
Czechoslovakia						1938, 1952	—
Poland						1936, 1940, 1941	1981

(continued)

TABLE 1a
Sovereign Defaults from 1294 to 2008[1]

	1294-1599	1600-1699	1700-1799	1800-1819	1820-1913	1914-1974	1975-2008
Soviet Union Collapse							
Moldova							1998, 2002
Ukraine							1998
Latin America							
First Generation Latin America				**Revolution**	**Century of Great-Power Peace**	**Depression, 2 World Wars**	**Decoloni-zation**
Argentina					1828, 1830, 1990	1956	1982, 1989, 2001
Bolivia					1875	1931	1980, 1989
Brazil					1826, 1898, 1902	1914, 1931, 1937, 1961	1983
Chile					1826, 1880	1931, 1965, 1972	1983
Colombia					1826, 1850, 1873, 1880, 1900	1932, 1935	1985
Costa Rica					1828, 1874, 1895, 1901	1932, 1962	1981, 1984
Cuba					—	1933, 1960	1982
Dominican Republic					1873, 1892, 1897, 1899	1931	1982
Ecuador					1826, 1832, 1868, 1894, 1906, 1909	1914, 1929	1982, 1999

(continued)

TABLE 1a
Sovereign Defaults from 1294 to 2008[1]

	1294-1599	1600-1699	1700-1799	1800-1819	1820-1913	1914-1974	1975-2008
El Salvador					1828, 1898	1921, 1932, 1938	1984, 1995
Guatemala					1828, 1876, 1894, 1899	1933	1989
Haiti					—	—	1982
Honduras					1828, 1873	—	—
Mexico					1828, 1833, 1844, 1854, 1859, 1866	1914, 1928	1982
Nicaragua					1828, 1894, 1911	1915, 1932	1979, 1980
Panama					—	1932	1983, 2003
Paraguay					1827, 1874, 1892	1920, 1932	1986, 2003
Peru					1826, 1876	1931, 1968	1976, 1978, 1980, 1984
Uruguay					1876, 1891	1915, 1933	1983, 1987
Venezuela					1826, 1832, 1848, 1860, 1865, 1892, 1898	—	1982, 1990, 1995, 1998, 2004
[Σ defaults = 128]					59	33	36
Decolonization Period							
Antigua & Barbuda							1996

(continued)

TABLE 1a
Sovereign Defaults from 1294 to 2008[1]

	1294-1599	1600-1699	1700-1799	1800-1819	1820-1913	1914-1974	1975-2008
Dominica							2003
Grenada							2004
Guyana							1979, 1982
Jamaica							1978
Surinam							2001
Trinidad & Tobago							1988
[Σ defaults = 8]							8
[Total: 136 defaults]							

Africa (1816-2008)				Asia (1921-2008)	
New Africa[2]				**New Asia[3]**	
Algeria	1991	Madagascar	1981	Bangladesh	1978, 1991
Angola	1988	Malawi	1982	Indonesia	1998, 2000, 2002
Burkina Faso	1983	Mauritania	1992	Iraq	1990
Burundi	1986	Morocco	1983, 1985	Jordan	1989
Cameroon	1979, 1985	Mozambique	1980, 1983	Korea	1998
Cape Verde	1981	Niger	1983	Korea, Dem. Rep.	[1974]
Central African Rep.	1981, 1983, 1986	Nigeria	[1972], 1986, 1992, 2002	Mongolia	1997
Congo	1983	Sao Tomé & Principe	1987	Myanmar	1997
Congo, Dem. Rep.	[1961], 1976	Senegal	1981, 1990, 1992	Pakistan	1999

(continued)

TABLE 1a
Sovereign Defaults from 1294 to 2008[1]

Africa (1816-2008)				Asia (1921-2008)	
Côte d'Ivoire	1983, 2000	Seychelles	2000	Philippines	1983
Gabon	1978, 1986, 1999	South Africa	1985, 1989, 1993	Sri Lanka	1982, 1996
Gambia	1985	Sudan	1979	Vietnam	1985
Ghana	[1969], 1987	Tanzania	1984	Yemen	1985
Guinea	1986, 1991	Togo	1979, 1982, 1988, 1991		
Guinea-Bissau	1983	Uganda	1981		
Kenya	1994	Zaire	[1961], 1976		
Kenya	1994	Zambia	[1965], 1978		
Lesotho	1990	Zimbabwe	[1965], 1983, 2004		
Old Africa[4]				**Old Asia**[5]	
Egypt	1816, 1876, 1984	Morocco	1903, 1983	China	1921, 1939
Ethiopia	1991	Sierra Leone	1972, 1983, 1986	Japan	1942
Liberia	1875, 1912, 1932, 1980	Tunisia	1867	Iran	1978
				Thailand	1998

[Total: 97 defaults; 59 countries]

[1] Entries show the years in which a country went into default. Pre-1975 defaults in new Africa and new Asia are marked in brackets. Additional details on the individual defaults are available from the authors upon request.
[2] New Africa: Σ defaults = 61, Σ countries = 36.
[3] New Asia: Σ defaults = 17, Σ countries = 13.
[4] Old Africa: Σ defaults = 14, Σ countries = 6.
[5] Old Asia: Σ defaults = 5, Σ countries = 4.

Table 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
1294-1599			
England[1]	1294	1303	War
	1340	1360	War
	1442	1450	War
	1594	1603	War
France	1558		War
Portugal	1560		War
Spain	1557	1560	War
	1575	1577	War
	1596	1598	War
1600-1699			
France	1604		War
	1624	1624	War
	1648		War
	1661	1662-65	War
Germany			
Prussia	1683		War
Spain	1607		War
	1627		War
	1647		War
	1653		War
	1680		War
1700-1799			
France	1700		War
	1713	1716	War
	1720	1723	War
	1770		War
	1788	1792[2]	Revolution/War
1800-1819 - Revolution & Napoleonic Wars			
Austria	1802		Revolution/War
	1805		Revolution/War
	1811		Revolution/War
	1816		Revolution/War

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
Denmark	1811		Revolution/War
France	1812		Revolution/War
Germany			
Prussia	1807		Revolution/War
	1813		Revolution/War
Westphalia	1812		Revolution/War
Hesse	1814		Revolution/War
Holland	1814		Revolution/War
Sweden	1812		Revolution/War
1820-1913 - Century of Great-Power Peace: Old Europe			
Austria	1868	1870	Coupon tax after Austro-Prussian War
Germany			
Schleswig-Holstein	1850		War
Portugal	1834	1841	Repudiation of usurper's loan
	1850	1856	
	1892	1901	Budget crisis
Russia	1839		War
	1885		Small coupon tax
Spain	1820		Troops mutiny against king
	1831	1834	Carlist Wars
	1851		Civil unrest
	1867	1872	Civil unrest prior to Liberal uprising
	1882		
1820-1913 - Century of Great-Power Peace: Balkans and Turkey			
Bulgaria	1886		War
	1891		War
Greece	1826		Independence war and turmoil
	1843		
	1860	1876	
	1893	1897	Budget crisis and political instability
Turkey	1875	1881	Russo-Turkish War, budget crisis
Yugoslavia/Serbia	1895		Serbian default

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
1820-1913 Century of Great-Power Peace: Latin America, First Generation			
Argentina	1828		Independence war and civil unrest
	1830	1857	Independence war and civil unrest
	1890	1893	Refinancing problem (Baring Crisis)
Bolivia	1875	1879	Crisis of 1873
Brazil	1826	1829	War with Portugal and United Provinces
	1898	1910	Coffee prices collapse
Chile	1826	1842	Independence war and civil unrest
	1880	1883	War of the Pacific
Colombia	1826	1861	Independence war and civil unrest
	1873		Crisis of 1873
	1880	1904	Trade depression, then civil war
Costa Rica	1828	1840	Independence war; fall of Central American Federation (CAF)
	1874	1885	Crisis of 1873, Central American chaos
	1895	1911	
Ecuador	1832	1855	Independence war and split from Colombia
	1868	1898	Crisis of 1873
El Salvador	1828	1860	Independence war and split from CAF
Guatemala	1828	1856	Independence and split from CAF
	1876	1888	Crisis of 1873, Central American chaos
	1894	1917	
Honduras	1828	1867	Independence war and split from CAF
	1873	1925	Crisis of 1873, Central American chaos
Mexico	1828	1850	Post-independence chaos and war with US
	1859	1885	Civil war, French intervention then repudiation
Nicaragua	1828	1874	Independence war and split from CAF

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
	1894	1895	
Paraguay	1874	1885	Following war with Argentina, Brazil, Uruguay, Crisis of 1873
	1892	1895	
Peru	1826	1848	Independence war and civil unrest, Guano price collapse
	1876	1889	War of the Pacific, Crisis of 1873
Uruguay	1876	1879	Crisis of 1873
	1891		
Venezuela	1832	1840	Independence war and split from Colombia
	1848	1881	Revolutions and civil unrest
	1892	1893	Civil unrest
	1898	1905	Revolutions and European blockades
1820-1913 - Century of Great-Power Peace: Old Africa			
Egypt	1816		
	1876	1880	Budget crisis, British and French intervention
Liberia	1875	1898	
Tunisia	1867	1870	
1914-1974 - Depression, Two World Wars: Old Europe			
Austria	1914	1915	WWI
	1932	1933	Great Depression
	1938		German occupation
	1940		WWII
	1941	1952	WWII
Germany	1932	1938	Great Depression
	1939	1953	WWII
East Germany	1949	1992	Communist takeover
Russia	1918	1996	Communist Revolution
Italy	1940	1946	WWII
1914-1974 Depression, Two World Wars: Balkans and Turkey			
Bulgaria	1915	1920	WWI and civil unrest
	1932	1994	Great Depression, WWII and Communist takeover

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
Greece	1932	1964	Great Depression and WWII
Turkey	1915		WWI, European occupation, Great Depression
	1931		Great Depression
	1940	1943	WWII (but a non-belligerent)
	1959		
	1961	1965	
Yugoslavia/Serbia	1933	1960	Great Depression and WWII
1914-1974 - Depression, Two World Wars: Post Versailles			
Czechoslovakia	1938	1946	Nazi occupation, WWII
	1952	1959	Communist takeover and repudiation
Hungary	1932	1937	Great Depression
	1940		WWII and Communist takeover
	1941	1967	WWII and Communist takeover
Poland	1936	1937	Great Depression
	1940		WWII
	1941	1952	WWII
1914-1974 - Depression, Two World Wars: Latin America, First Generation			
Argentina	1956	1965	Post-Peron budget crisis, beef export drops
Bolivia	1931	1957	Great Depression
Brazil	1914	1919	End of rubber boom and coffee price drops
	1931	1943	Great Depression
	1961	1964	Budget crisis
Chile	1931	1948	Natural nitrate market collapse, Depression
	1965		Copper price drop
	1972	1975	Budget crisis and coup
Colombia	1932	1944	Great Depression
Costa Rica	1932	1953	Great Depression
Cuba	1933	1934	Great Depression
	1960	1963	Communist revolution and repudiation
Dominican Republic	1931	1934	Hurricane and Depression

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
Ecuador	1906	1955	Civil unrest, then Great Depression
El Salvador	1921	1922	
	1932	1946	Great Depression
Guatemala	1933	1936	Great Depression
Mexico	1914	1922	Revolutionary period and partial repudiation
	1928	1942	
Nicaragua	1932	1937	Great Depression
Panama	1932	1946	Great Depression
Paraguay	1920	1924	
	1932	1944	Great Depression and war with Bolivia
Peru	1931	1951	Civil unrest, conflict with Chile, Great Depression
	1968	1969	Fishmeal price drop and budget crisis
Uruguay	1915	1921	WWI (but a non-belligerent)
	1933	1938	Great Depression
1914-1974 - Depression, Two World Wars: Old Africa			
Liberia	1912	1923	Budget crisis
	1932	1935	Great Depression
Morocco	1903	1904	
1914-1974 - Depression, Two World Wars: Old Asia			
China	1921		Civil war
	1939	1949	WWII, civil war
Japan	1942	1952	WWII
1974-2008 - Decolonization: Old Europe			
Russia	1991	1992	Soviet Union collapse
	1998	2000	Russian financial crisis
1975-2008 - Decolonization: Balkans and Turkey			
Albania	1990	1992	Soviet Union collapse
	1992	1995	Soviet Union collapse
Bosnia-Herzegovina	1992	1997	War, break-up of Yugoslavia
Bulgaria	1990	1994	Soviet collapse
Croatia	1992	1996	War, break-up of Yugoslavia

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
Macedonia	1992	1997	War, break-up of Yugoslavia
Romania	1998	2001	Russian financial crisis
Turkey	1978	1979	Oil and interest rate shocks
	1982		Oil and interest rate shocks
Yugoslavia/Serbia	1983	1992	Oil and interest rate shocks and civil war
	1992		War, civil war
1975-2008 - Decolonization: Post Versailles			
Poland	1981	1994	Soviet collapse, oil and interest rate shocks
1975-2008 - Decolonization: Soviet Union Collapse			
Moldova	1998		Russian financial crisis
	2002		
Ukraine	1998	2000	Russian financial crisis
1974-2008 - Decolonization: Latin America, First Generation			
Argentina	1982	1993	Oil and interest rate shocks, budget crisis
	1989	1993	Oil and interest rate shocks, budget crisis
	2001	2003	Budget crisis
Bolivia	1980	1992	Oil and interest rate shocks
Brazil	1983	1992	Oil and interest rate shocks, budget crisis
Chile	1983	1990	Oil and interest rate shocks
Costa Rica	1981	1990	Oil and interest rate shocks
Cuba	1982	1992	Oil and interest rate shocks. Soviet collapse
Dominican Republic	1982	1994	Oil and interest rate shocks
Ecuador	1982	1992	Oil and interest rate shocks
Guatemala	1989		
Haiti	1982	1994	Oil and interest rate shocks
Mexico	1982	1990	Interest rate shocks
Nicaragua	1979	2004	Oil and interest rate shocks
Paraguay	1986	1992	Oil and interest rate shocks
Panama	1983	1992	Oil and interest rate shocks

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
	2003	2004	
Peru	1978	1992	Sharp export contraction, oil and interest rate shocks
Uruguay	1983	1991	Oil and interest rate shocks
Venezuela	1982	1990	Interest rate shocks and budget crisis
1974-2008 - Decolonization: Latin America, Decolonization Period			
Antigua & Barbuda	1996	2004	
Dominica	2003	2004	
Grenada	2004		
Guyana	1982	1992	Oil and interest rate shocks
Jamaica	1978	1990	Oil and interest shocks, budget crisis
Surinam	2001		
Trinidad & Tobago	1989	1989	
1974-2008 - Decolonization: New Africa			
Algeria	1991	1996	
Angola	1988	1992	Civil unrest
Burkina Faso	1983		
Burundi	1986		
Cameroon	1989	1992	
Cape Verdi	1981		
Central African Rep.	1981	1983	
	1986		
Congo	1983	2004	
Congo, Dem. Rep.	1961	1976	
	2004		
Côte D'Ivoire	1984	1992	Oil and interest rate shocks
Gabon	1978		Interest rate shocks
	1986	1992	Oil price swings
Gambia, The	1986	1986	
Ghana	1966	1974	
Guinea	1985	1992	Oil and interest rate shocks
Guinea-Bissau	1983		
Kenya	1994		

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
Lesotho	1990		
Madagascar	1981	1992	Oil and interest rate shocks
Malawi	1982	1988	Oil and interest rate shocks
Mauritania	1992		
Mozambique	1980	1983	
Niger	1983	1991	Oil and interest rate shocks
Nigeria	1983	1991	Interest rate shocks and civil unrest
Philippines	1983	1992	Oil and interest rate shocks, natural disasters
San Tome & Principe	1987		
Senegal	1981	1992	Oil and interest rate shocks
Seychelles	2000		
Sierra Leone	1977	1992	Oil and interest rate shocks
South Africa	1985	1992	Sanctions-induced capital outflows
Sudan	1979	1992	Drop in cotton exports, interest rate shocks
Tanzania	1984	1992	Oil and interest rate shocks
Togo	1979	1992	Oil and interest rate shocks
Tunisia	1991		
Uganda	1981	1992	Oil and interest rate shocks
Zaire	1961		Default following independence
	1976	1992	Budget crisis, and copper, oil and interest shocks
Zambia	1983	1992	Oil and interest rate shocks
Zimbabwe	1965	1980	Repudiation following independence
1974-2008 - Decolonization: Old Africa			
Ethiopia	1991		
Egypt	1984	1992	Oil and interest rate shocks
Morocco	1983	1990	Oil and interest rate shocks
Liberia	1980	1992	Oil and interest rate shocks, civil unrest
1974-2008 - Decolonization: New Asia			
Bangladesh	1978	1991	
Indonesia	1998	1999	

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Country	Start of Period	End of Period	Notes
	2000	2002	
Jordan	1989		
Korea	1998		
Korea, Dem. Rep.	1974		
Mongolia	1997		
Myanmar	1997		
Pakistan	1999		
Phillipines	1983	1992	
Sri Lanka	1982		
Thailand	1998		
Vietnam	1985	1998	
Yemen	1985	2001	
1974-2008 - Decolonization: Old Asia			
Iran	1978	1995	Iranian Revolution, Iraq-Iran war
Iraq	1990	1992	Gulf War

For the years 1800 to 2004, the main source is Borensztein and Panizza (B&P, 2008), who use data from Purcell and Kaufman (P&K, 1993) for 1800 to 1992 [(data reprinted in Beim and Calomiris 2001)], data from S&P for 1824 to 2004, data from Sturzenegger and Zettelmeyer (S&Z) for 1874 to 2003, and data from Detragiache and Spilimbergo (D&Z) for 1973 to 1991. Also used are Borchard and Wynne (1951); Bosher (1970); Bouchard (1891); Elliott (2002); Fryde (1983); Karl (1997); Macdonald (2003); Marichal (1989); Parker (2004); Reinhart and Rogoff (2009); Reinhart, Rogoff and Savastano (2003); Velde (2016); and Winkler (1933).
S&P distinguish between defaults on bonds, bank loans, and suppliers' credit, but this paper does not make that distinction. Bank-loan defaults are mainly in the very late 1970s, the 1980s, and the early 1990s, corresponding to Latin America's "Lost Decade." P&K and S&P give both starting and emergence dates (not always available) for the default period. S&Z and D&S give only starting dates. D&S record some defaults that none of the other three record; this paper usually omits these episodes. Starting and ending dates vary somewhat across these four databases, depending on the methods the authors use. A good example is the discussion of methods in P&K. Note that if a country goes in and out of default several times with brief periods in between, P&K count these as a single episode (see also B&P). For defaults for 2005-2008, data are from S&P and Moody's, found online.
Data for 1294 to 1799: Main sources are Elliott (2002); Karl (1997); Macdonald (2003); Marichal (1989); Parker (2004, Tables 6.1, 6.2); Reinhart and Rogoff (2009). See also Borchard and Wynne (1951); Bosher (1970, Chapter 1). Velde (2016); and Winkler (1933). The 1294 default by Edward I is covered in Fryde (1983, III), with additional details on the individual defaults listed below.

(continued)

TABLE 1b
Available Default Periods and Causes, 1294 to 2008

Defaults for Prussia are in 1683, 1807 and 1813. Westphalia in 1812 and Hesse in 1814 defaulted before Prussia annexed them. The Schleswig-Holstein default of 1850 occurred during the First Schleswig War of 1848-1851. In that of Prussia against Denmark, Prussia took part of Schleswig. (In the Second Schleswig War of 1864, Austria and Prussia against Denmark, Prussia took all of Schleswig and Austria took Holstein. In the Austro-Prussian War of 1866, Prussia took Holstein from Austria and the two duchies subsequently became the Prussian Province of Schleswig-Holstein.)
Greece, Bulgaria, Romania and Serbia (predecessor state and successor state to Yugoslavia) were part of the Ottoman Empire and thus could not issue sovereign debt in the period to 1792 or during the French Revolutions and the Napoleonic Wars and hence could not have defaulted.
Austria: 1868 16% coupon tax is covered by Winkler (1933).
Bulgaria: Bulgaria is not included in RR (2009, Table 6.2), but is included in RRS (2003, Table 2).
France: 1812 is from RR (2009, Table 6.2). Macdonald (2003, p.144): 1557 for France, 1634. Macdonald (pp.143-144) also states that Henry IV engaged in "renegotiations" of debts over a decade after 1594, but this is not included in others' lists. Wilson and Park (1980) list 1558, not 1557, for both France and Spain.
Germany (Prussia) and Portugal: last defaults in the periods from 1294 to 1792 are Germany (Prussia), 1683, and Portugal, 1560. Brazil broke off from Portugal in 1822. For Portugal, Winkler omits 1845; he gives 1890 rather than 1892, as do SZ.
Russia: SZ give war as the cause of the 1839 default. Purcell and Kaufman (1993) describe the Russian 1885 default as a "small coupon tax;" and Winkler (1933) refers to a 5% coupon tax in 1885.
Spain: The last default in the period was 1680. 1653 and 1680 are from Karl (1997, p. 39) and Elliott (2002). Elliott (2002, p. 67) describes a re-minting that doubled the silver content and led to "a violent collapse of prices, and produces a succession of prices from the Crown downwards." Macdonald (2003) notes a series of "conversions," each under a "Decree of Bankruptcy," 1557, 1560, 1575, 1596, 1607, 1647, 1653.
England: RR (2009) give 1340. Macdonald (2003) states that in 1339 Edward III repudiated his debt to his Italian creditors, "a default that brought about widespread misery in Florence." For England's 1594 default, RR (2009, Table 6.1) state their "… uncertainty at this time about whether England's default was on domestic or external debt."
Borchard and Wynne (1951) state that the borrowing on which Greece defaulted in 1826 occurred in 1825. Note that in 1875 the tributaries of Serbia, Montenegro, and Wallachia and Moldavia (Romania) unilaterally declared independence from the Ottoman Empire. In the aftermath of the Russo-Turkish War of 1877-1878, the Ottomans formally recognized their independence. Previously, after two uprising (1804, 1815), Serbia was autonomous within the Ottoman Empire, though Ottoman troops continued to garrison the capital, Belgrade, until 1867. Serbia was therefore autonomous within the Ottoman Empire for approximately six decades. Bulgaria became virtually independent (the Principality of Bulgaria); Bulgarians fought for the rebels in the Russo-Turkish war. The negotiations in 1878 also settled Bosnia's status temporarily and partially.
France annexed Holland in 1810; the 1814 default decision was by the French. In the mid-19th century, final liquidation of the repudiated public debt allowed restoration of public credit.

(continued)

Table 1b
Available Default Periods and Causes, 1294 to 2008

Conflicting dates: Portugal: SZ and Winkler (1933) give 1892 versus RR 1890. Hungary: SZ give 1931 versus RR 1932. But see B&P for many conflicts in dates.
State defaults: Various states of the U.S. Midwest and South defaulted in the 1840s and some municipalities in Canada defaulted in the Great Depression (see Winkler 1933).

[1] No definitive emergence dates from these early English defaults are available in the literature. The end dates entered reflect the year peace was restored, except for the 1442 default, where the 1450 end date is based on Brayson's (2020, p. 63) depiction of the new parliamentary measures adopted that year as the culmination of the "final 'crisis' of the medieval English 'tax state.'"
[2] Although 1792 is not an actual emergence date, the abolition of the monarchy that year effectively ended the regime that had issued the debt.

armed conflict. War remains a major factor until after the Second World War, however. Interplay between external conflict and regime change continued into the twentieth century with the Russian debt repudiation of February 8, 1918. The Tsarist debt (initially honored by the Provisional Government even after the Tsar's abdication in March 1917) was repudiated by the Bolsheviks after the October Revolution, but the Bolshevik government itself later suggested, on February 4, 1919, that resumption of at least partial payment on the repudiated debt could be tied to the ending of hostilities (Oosterlinck and Landon-Lane, 2006, p. 512).[6]

A broader concern is the potential ambiguity regarding the definition of default. For example, Eichengreen and Portes (1986, 1989) consider a wider array of 1930s defaulters than do Borensztein and Panizza (2008) and other sources used in constructing Table 1a. Specifically, Eichengreen and Portes (1989, Table 2) list 12 countries that are "heavy" defaulters, plus 16 "light" defaulters. The latter group, in particular, appears to include only selective or partial defaults, in contrast to the total defaults of the kind we have in mind, e.g., the Latin America defaults of the mid-1820s. Indeed, the "light"

[6] This overture was soon met by a "virtual loan embargo" imposed under US government policy in the 1920s (Lienau, 2014, p. 99).

defaults include instances where the missed payments were limited to subsets of the overall debt such as municipal, provincial or railroad bonds. For example, we have a French default on just the debt for International Power Securities Corporation; an Italian default for the Italian Credit Consortium for Public Works and First Mortgage for Hydro-Electric "A;" a Finnish default for a guaranteed municipal loan and the city of Abo; a Dutch default for the city of Amsterdam; and an Australian default for the city of Brisbane, the South Australia Government, and the city of Hobart.[7]

Although a case can certainly be made for extending the analysis to include partial as well as total defaults, the set of defaults laid out in Table 1a is more in line not only with Borensztein and Panizza (2008) but also Reinhart and Rogoff (2009). Focusing on states established before the nineteenth century, Table 1b shows that all 36 "Old" Europe defaults during 1294-1819 arose from war-related causes. From 1820 to 1913, from the period following the Napoleonic Wars to the eve of First World War, most Old Europe defaults again arose from war. Table 1b also shows that three of the eight defaults in "New" Europe in this period stemmed rose from war. Of the 27 defaults in Europe in the period from the First World War through the Second World War and its aftermath, four arose from the First World War, ten from the Second World War, and the remaining thirteen from the financial and economic strains of the Great Depression. Indeed, even when the range of coverage is extended through 1974, 52 of 71 European defaults were a direct consequence of war.

The lengthy average interval between defaults in Old Europe over the 1294-1900 period is shown in Table 2. The highest propensity to default concerns France (11 occurrences) and Spain (12), and even for those countries the average interval is 23 years and 20 years, respectively. The only state with a shorter average interval between de-

[7] Although the latter debt was guaranteed by the Commonwealth Government of Australia, this does not mean that the defaulted issue was necessarily a significant share of the total Australia national debt. Canada is listed as a light defaulter during the 1930s, even though the only default appears to be that associated with Newfoundland (which did not actually become part of Canada until 1948).

Table 2
Sovereign Defaults in Old Europe, 1294-1900

	Start-End	Length (years)	Defaults	Average Gap
England	1294-1594	300	4	100
France	1558-1812	254	11	23.1
Spain	1557-1882	325	13	25.0
Portugal	1560-1890	330	4	82.5
Prussia	1683-1813	130	3	65.0
Austria	1806-1868	62	5	12.4
Russia	1839-1885	46	2	46.0
Mean			**6.00**	**50.57**
Standard Deviation			**3.93**	**30.61**

See Notes to Tables 1a and 1b for data sources.

faults is Austria, whose five defaults were all essentially the product of two events: the Napoleonic Wars and the Franco-Prussian War. Within the New Europe group, only Bulgaria (twice) and Greece (four times) exhibit multiple defaults prior to 1900. Even in the subsequent period, 1900-1974, there is little evidence of serial default except for Turkey, which defaulted five times between 1915 and 1961.

Among the six defaulters of Old Europe, England stands at one extreme with four defaults, an average span of 100 years between them, and then no total defaults after 1594 – although temporary moratoria were seen a century later under the January 2, 1672 "Stop of the Exchequer" and again in 1688.[8] At the other extreme lies Spain, with 13 defaults (with an average interval of 25 years). But, in many ways, Spain presents not one case, but two: there is a gap of 140 years between the end of its first sequence of defaults (1557-1680) and its second sequence (1820-1882). As to Prussia, 124 years elapsed between its first default (1683) and its second (1807). And there are

[8] Li (2019) shows that the current yields on English government debt remained volatile until a sustained decline in rates set in after 1701. A further pronounced reduction in volatility was seen after Napoleon's defeat at Waterloo in 1815 ushered in the era of the *Pax Britannica* (Brown, Burdekin and Weidenmier, 2006).

six states with only one default each (Denmark, Sweden, Holland, Hesse, Westphalia, and Schleswig-Holstein).

In addition to defaults by Spain and France in 1647-1648, there was a mini-wave of defaults in the second half of the 1500s, featuring Spain (1557), France (1558) and Portugal (1560). Smith (1920, pp. 521-522) observes: "The crash came finally as the result of the bankruptcy of the Spanish and French governments [in 1557]. Spain's repudiation of her debt was partial, taking the form of consolidation and conversion; France, however, simply stopped all payments of interest and amortization. Many banks throughout Europe failed, and drew down with them their creditors. The years 1557-1564 saw the first of these characteristically modern phenomena, international financial crises."[9]

This was, of course, minor in comparison to the defaults precipitated by the Napoleonic Wars, a wave that spread across France, Prussia, Austria, Denmark, Sweden, Holland, Hesse, and Westphalia.[10] These defaults are better understood as reflecting the contagion effects of war as opposed to contagion in the more modern sense, whereby one country defaults simply because another had defaulted first. Of the six Old Europe countries that defaulted during the Napoleonic Wars, only Austria did so again in the period 1816-1914 and this was itself a product of the Franco-Prussian War. Russia had no defaults until 1839 (again caused by war) and then in 1885 (triggered by difficulties financing a 5% coupon tax). Russia's history of not defaulting in the period 1700-1815 (or even 1294-1800) did not foreshadow two defaults in the period 1816-1900.

Additional defaults occurred in the new Balkan countries during 1819-1914. Greece broke free from Turkey after the Greek war for independence (1821-1829), and Serbia, Romania and Bulgaria achieved

[9] Some apparent overlap continued into the seventeenth century, with Spain defaulting in 1607, 1627, 1647, 1653 and 1680 and France in 1604, 1624, 1648 and 1661. In the eighteenth century, instead, Spain did not default whereas France defaulted in 1700, 1713, 1720, 1770 and 1788.

[10] The defaults in question are those of Prussia in 1807 and 1813, Westphalia in 1812, Hesse in 1814, and Schleswig-Holstein in 1850.

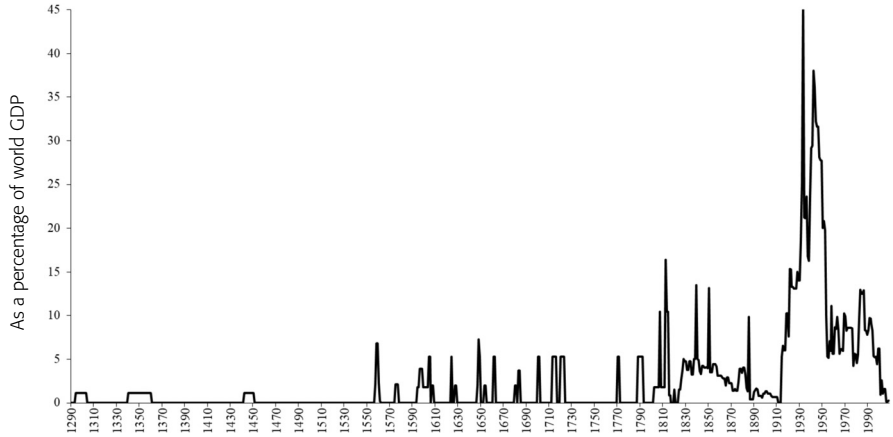
independence during the last quarter of the nineteenth century. Greece negotiated two loans in London in 1824 and 1825 on which it defaulted in 1826, while it was still fighting for its existence as an independent kingdom (Borchard and Wynne, 1951, Vol. II, p. 285).[11] After independence, until the start of the First World War in 1914, Greece defaulted three more times, Serbia once and Bulgaria twice (while Romania did not default at all during this period). All of these countries had bouts of political instability and started from a very modest level of political, economic and financial development. Indeed, their defaults appear to stem from the troubles that plague newly independent poor countries. Underdevelopment and political instability explain most of the defaults of the newly independent Balkan states.

The rather limited supporting evidence for default waves in either Old Europe or New Europe contrasts with the pattern in Latin America, where defaults occurred much more frequently. Sixteen of the 20 first-generation Latin American countries had multiple defaults in the period 1820-1945. And, unlike most European defaults, which were a product of war, these Latin American defaults typically resulted from overborrowing during peacetime. The contrast between the early European record and the more recent default pattern is illustrated in Figure 1, which takes Reinhart and Rogoff's (2009, p. 72) post-1800 plot of defaults as a percentage of world GDP and extends it back to 1294 using the pre-1800 data presented in Table 1a.[12] Available data strongly suggest not only that the number

[11] Although Greece received a new loan in 1833 that was guaranteed by England, France and Russia, the default on the original loans was not terminated until an agreement was reached with foreign bondholders in 1878 (Conte, 2019, p. 120).

[12] There are two major qualifications to the pre-1800 extension. First, the earliest available world GDP data are from 1500 and so there can be a gap of up to 206 years between the default date and the GDP date. Second, there are sometimes no clearly defined end dates for defaults. For the early English defaults, the end of the war is typically used as a proxy. Missing end points for France, Portugal and Spain were dealt with by (conservatively) assuming that resolution was achieved the year after the country entered default, since we know that other defaults by these countries before 1800 were generally resolved quite quickly.

Figure 1
Sovereign Default, 1294-2008: Percentage of countries in default weighted by their share of world GDP



Notes: The post-1800 data points are as calculated by Reinhart and Rogoff (2009, p. 72), using 1913 GDP weights for 1800-1913); 1990 GDP weights for 1914-1990, and 2003 GDP weights for 1991-2008.
The pre-1800 data points are calculated from the defaults listed in Tables 1a and 1b and the GDP shares given by Maddison (2003, p. 261) using 1500 GDP weights for 1294-1500, 1600 GDP weights for 1501-1600, and 1700 GDP weights for 1601-1799.

Sources: Tables 1a and 1b; Maddison (2003, p. 261); and Reinhart and Rogoff (2009, p. 72).

of pre-1800 defaults is much lower relative to world GDP, but also that there is very little evidence of anything like the default waves seen after 1821.[13] Pre-1800 defaults, by contrast, tended to be idiosyncratic. Although there was some concentration between the late 1500s and the early 1700s, this was primarily driven simply by the incidence of war. And we find little or no overlap between defaults on the part of high-frequency defaulters – France and Spain – and those of the other European states. In the following sections we focus on the contrast between the serial defaulters of the earlier period

[13] Although the Great Depression default wave of the 1930s was the largest in terms of GDP, the post-1975 wave actually involved by far the greatest number of countries (as discussed in Section 4 below).

and the heightened serial correlation and wavelike patterns evident after the Second World War in Latin America and elsewhere.

3. Causes and Consequences of Serial Default in Old Europe

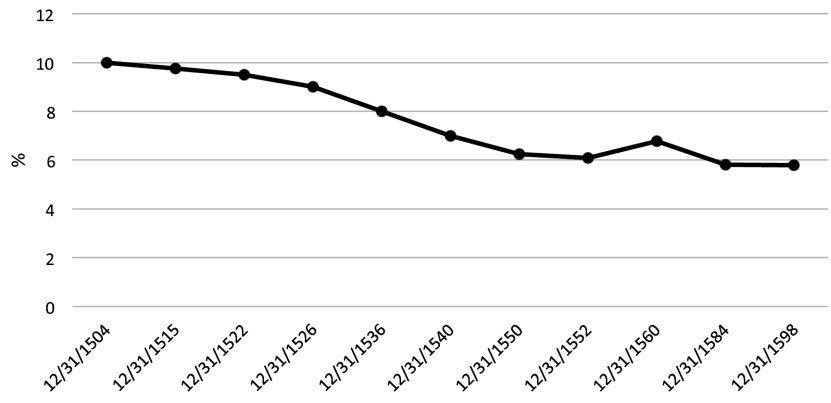
The overall European record through the end of the nineteenth century shows that almost all defaults were provoked by extreme military and financial pressures that the states concerned simply could not ward off despite their best efforts to do so. There are only two convincing early examples of serial default. Spain was the leading serial defaulter in the 1500s, succeeded by France in the 1700s. In both cases, the defaulting state was a preeminent power. The 1494 Treaty of Tordesillas had divided all known non-European lands between Spain and Portugal, with Spain also fielding the most powerful military force within Europe itself. By the 1700s, France was firmly established as the leading continental power, essentially locked in a running battle for global supremacy with the leading sea power, England. At the very least, France's repeated defaults had to imply greater risks for borrowers, but a more critical consideration was whether the defaults raised more fundamental concerns regarding the state's long-run ability to repay the loans. In this section we analyze the French and Spanish cases in detail and point to important differences in the extent to which the defaults called into the question the sustainability of the state's fiscal policy. In particular, whereas the Spanish defaults in the 1500s and 1600s were more strategic in nature and never appear to have threatened long-run fiscal solvency, the French situation became increasingly fragile over time.

Spanish Defaults under Philip II

In the case of Spain in the 1500s, it seems that the defaults were accepted as part of the cost of doing business with the monarch. Long-term bonds, called *juros*, were issued at interest rates that

trended downward during the century, from as high as 10% in 1504 to around 6% by 1584 (Figure 2). The principal value of *juros* outstanding steadily increased from just over 2 million ducats in 1504 to over 80 million ducats in 1598 (Table 3). *Juros* were registered securities with guaranteed payment in specie or coin assigned from the revenues of the crown (Muto, 1995, p. 252). For immediate, emergency borrowing, however, the crown had to resort to shorter-term instruments known as *asientos*. Despite numerous defaults on *asientos* during the 1500s and 1600s, the crown never defaulted on *juros* during the same period. Although short-term credit was mainly drawn upon to finance wartime spending and to pay Spain's armies fighting in Flanders, the funds might also be delivered to Lisbon or Spain's Atlantic islands. The share of *asientos* in crown finance naturally varied over time, but de Carlos Morales (1999, p. 70) notes an officially-recorded mix comprising 25-27 million ducats of short-term debt and just over 48 million ducats in *juros* in 1574, which implies that *juros* accounted for close to two-thirds of the total debt at that time. In the same year, the annual interest on these *juros* amounted to 2.7 million ducats, consistent with a payout ratio of approximately 5.6%.

Figure 2
Spanish Juros Bond Yields, 1504-1598



Source: Global Financial Data.

Table 3
Juros Principal and Interest Rates in Spain, 1504-1598

Year	Juros Principal	Interest Rate
1504	2.23	10.00%
1505	2.71	
1515	3.54	9.75
1516	3.59	
1522	3.87	9.50
1523	3.93	
1524	4.28	
1526	5.53	9.00
1527	5.49	
1529	6.90	
1536	8.49	8.00
1538	8.44	
1540	10.16	7.00
1542	10.41	
1545-1550	13.12	6.25
1552	13.12	6.09
1554	14.42	
1560	21.66	6.78
1566	31.10	
1573	40.59	
1584	65.69	5.81
1598	80.04	5.79

Note: Juros principal in millions of ducats.

Source: Ruiz Martín (1975, p. 739).

The flow of silver from the Americas was a key source of funding. All silver reaching Seville was taxed at 20%; Drelichman and Voth (2014, p. 266) estimate that silver accounted for 29% of the crown's fiscal revenue in the late 1500s. Contingency clauses on the *asientos* could include provision for a penalty rate, or liquidation of collateral, if a treasure fleet did not arrive by a specified date (Drelichman and Voth, 2014, pp. 98-99). The successive defaults between 1557 and 1596 were always limited to the *asientos* alone and

generally resolved by converting the amounts due on the suspended debt into *juros* (Álvarez-Nogal and Chamley, 2014). Álvarez-Nogal and Chamley (2018) add that, prior to the 1575 default, the *asientos* were explicitly collateralized in *juros*, with holders even entitled to sell such juros before the asiento maturity date. Although rights of conversion into *juros* remained in effect after 1575, the pre-selling of these *juros* was no longer allowed; contracts now only provided for options to sell *juros* and thereby reduce the crown's debt to the banker by a corresponding amount. Not all of the earlier debts were resolved by conversion into *juros*, however. The settlement of the 1557 (and 1560) debts contracted by Philip's father with the Fugger banking dynasty of Germany involved, in part, transfers of assets such as the quicksilver mines of Almadén. Drelichman and Voth (2014, p. 95) observe that the Fuggers received significantly less advantageous terms than the Genoese bankers and may have incurred an overall loss of as much as 22.56%. Furthermore, in contrast to the much speedier settlement afforded to the Genoese, the Fuggers' claims were not settled until August 1562.

Conklin (1998) suggests that the Spanish bankruptcies of the 1500s can be interpreted in terms of a Bulow and Rogoff (1989) debt ceiling set below the present value of the debt service that can be feasibly financed by the sovereign's revenue stream. Given that the bankruptcies of 1557, 1575 and 1596 each occurred when the uncollateralized arrears on *asientos* were between 7 and 9 million ducats, Conklin (1998, p. 502) takes this range to represent the crown's effective debt ceiling insofar as the bankruptcies involved the bankers themselves withholding any further lending. In contrast, Álvarez-Nogal and Chamley (2016) emphasize the role of a *de facto* ceiling on the issuance of long-term *juros*, imposed as a consequence of the relative autonomy of the cities of Castile which provided much of the revenue needed to service the debt and were generally opposed to supplying more. Resolution of the 1575 default was delayed while Philip II attempted to escalate *juro* issuance "through a very large tax increase and the cities resisted until the economic burden became too high" (Álvarez-Nogal and Chamley, 2016, p. 377). Although this

in no way contradicts the idea of lending limits emanating from the bankers, it does offer an explanation for why the crown allowed such large sums to accumulate in higher yielding *asientos* before converting them into lower yielding *juros*.

Although the defaults added to the risk associated with *asientos*, it does not seem that the amount of credit the crown drew ever exceeded its long-run ability to pay. Drelichman and Voth (2014, p. 117) conclude that the lion's share of the crown's short-term borrowing simply covered temporary fluctuations in income and expenditure. Moreover, the government ran primary budget surpluses that stabilized the debt-to-revenue ratio. The successive defaults effectively converted the outstanding *asientos* into lower-yielding long-term debt. For example, in 1560 the short-term debt was converted into *juros* yielding just 5%, significantly below the interest rate on other outstanding *juros*, which still stood above 7% (Muto, 1995, p. 255). In conjunction with the gains from a new series of indirect taxes, at the time of Philip II's death "short-term debt in 1598 was well within the amount of free revenues" (Macdonald, 2003, p. 131).

Meanwhile, higher interest rates on *asientos* than on *juros* compensated the lenders' exposure to interruptions of repayment. Conversion into lower yielding *juros* naturally implied haircuts for the lenders; these are estimated to have peaked at 38% in 1575 before diminishing to 20% at the time of the next bankruptcy in 1596 (Drelichman and Voth (2014, p. 32). Overall, Drelichman and Voth (2014, p. 182) estimate that, even taking the effects of the defaults into account, the bankers lending to King Philip II earned an average rate of return that was 4.43% above the *juro* rate. Although there was considerable variation across the different families that extended credit to the monarch, Drelichman and Voth (2014, p. 183) calculate that 51 out of 60 leading families earned more than the long-term bond yield and only five actually faced an outright loss over the period 1566-1600. Subsequent defaults in the seventeenth century under Philip III and Philip IV were themselves followed not only by expansions in the volume of credit but also by the entry of new groups of lenders. According to Álvarez-Nogal (2008, p. 92),

"[B]ankruptcies did not negatively affect the ability of the monarchy to borrow; on the contrary they improved it. … [They] did not break the rules of negotiations, they were part of them. … The 'willingness-to-pay' of the Spanish king was a sufficiently credible belief so that both parties were able to cooperate and make it profitable."

This is not to say that there were no costs attached to being a serial defaulter. The available evidence suggests that Spain faced an intractably inverted yield curve, with rates on short-term debt substantially higher than the long-term rate. There is some disagreement as to the size of the premium. Álvarez-Nogal (2008, p. 83) states that the base rate paid by the crown during the sixteenth century was not more than 8%, or around 14% overall including foreign exchange fees and other transaction costs. But another source points to a sharp rise in borrowing costs after the defaults began, from 17.6% in the 1520s and 28% in the 1540s to 50% in the run-up to the first default in 1557 (Macdonald, 2003, p. 129). Since Macdonald (2003) also notes that interest costs on the Antwerp Bourse, like Spain's own *juros* rates, were declining after 1520, there may well have been a penalty being paid here.

On balance, the impact of the defaults on Spain's financial position likely depended on the time horizon. The defaults allowed conversion of higher yielding debt to lower yielding *juros*, thereby reducing current debt service costs at a stroke. Expectations of ongoing defaults, however, would inevitably raise the cost of future short-term borrowing insofar as bankers demanded a premium as partial protection against this contingency. Drelichman and Voth's (2014) calculations suggest they were successful in this. At the same time, the Spanish crown continued to get the credit it needed to mount its military campaigns. The available evidence, however, still suggests that the defaults came at a price – even for a state that seemingly did not borrow beyond its means.

French Defaults under the Ancien Régime

While Spain was the prime serial defaulter of the 1500s and 1600s, France earned this dubious distinction in the 1700s. As in the

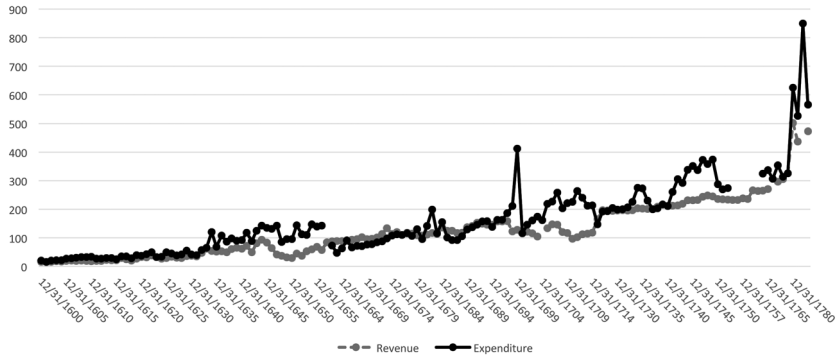
Spanish case, the original trigger for the French defaults was surging wartime spending. As in Spain, short-term debt was converted into long-term debt after the fighting ceased, with lower interest rates helping to offset the burden of the extra debt accumulated during wars (Velde, 2008, p. 144). France also frequently resorted to debasement and re-coinage in wartime, including in 1690, 1693, 1701, 1704 and 1709.[14] An initial indication of a shift from temporary strains associated with war to more deeply rooted fiscal problems lay in the newfound resort to peacetime re-coinage in 1715, 1718, 1720 and 1726 (Velde, 2008, pp. 146-147). Still more extraordinary was the conversion of the entire national debt into equity in the Indies Company under John Law in 1719.

The persistent growth of expenditures in excess of revenues during the 1700s is evident in Figure 3. Relative to the size of the economy, French expenditure and debt levels remained well below those seen in England (Velde and Weir, 1992, p. 6). The problem was not so much that French spending levels were excessive, but, rather, that French tax revenues were falling farther and farther behind those achieved under arch rival England's more effective fiscal system (Brewer 1989). Riley (1987, p. 237) observes that French peacetime taxes as a percentage of output not only failed to rise but actually declined from one period of peace to the next – with the real tax burden in 1768, for example, falling back to 1733 levels or lower. Based on available data on bond yields (Figure 4), it appears that the worsening fiscal trends did not translate into markedly higher interest rates until the onset of the Seven Years' War (1756-1763). However, French long-term bond yields were persistently higher than English bond yields: Velde and Weir (1992, p. 36) conclude that "the French government paid default premia throughout the eighteenth century."

Although there is no doubt that the French fiscal situation in the 1700s was less tenable than the Spanish situation in the 1500s, there

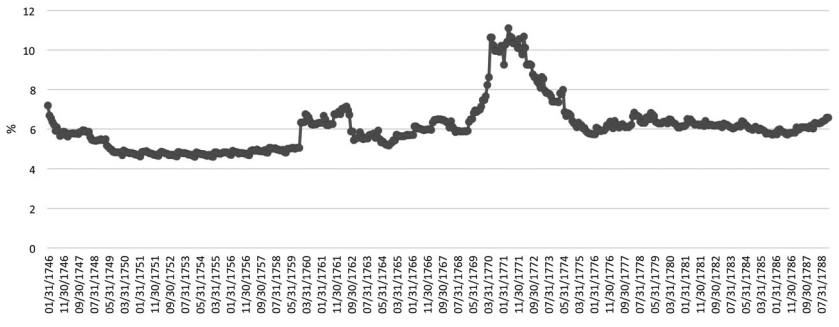
[14] Félix (2018) also details the introduction of paper money in 1704. This may have been crucial to allow France to sustain its military efforts at the time, although it eventually fueled inflation.

Figure 3
French Government Spending and Revenue under the Ancien Régime



Note: Amounts in millions of *livres*.
Source: Global Financial Data.

Figure 4
French 10 Year Bond Yields Under the Ancien Régime



Source: Global Financial Data.

is some debate as to when the problems became truly unsalvageable. According to White (1989, p. 555), following yet another default in 1770, the reforms enacted by Terray (appointed controller-general in 1769) "produced budget surpluses and retired some of the outstanding debt." This was accompanied not only by a sharp drop in bond yields after 1771 (Figure 4), but also by a similarly marked decline in the yield on Indies Company stock, from above 12% in late 1770 to a low approaching 6% in 1776. Budget deficits reappeared in the 1780s,

and the situation came to a head in the face of the economic depression when the government resorted to printing money. Bond yields had already begun rising by 1786. Growing lack of confidence in government debt was reflected in the fact that the yield on Indies Company stock, while also rising, came to enjoy a negative spread of 2 percentage points vis-à-vis that of the Loan of 1784 (White, 1989, p. 566). An intriguing question remains whether the monarchy could have survived by simply resorting again to the familiar remedy of default earlier in the 1780s: "The market expected default, was paid in advance for it, and received it in every crisis until 1788" (Velde and Weir, 1992, p. 371).[15] Indeed, Louis XVI's summoning of the Estates-General in 1789 for the first time in 175 years may well have played a key role in allowing the French Revolution to explode when it did.

The Case for Investing in a Serial Defaulter

Lenders to Philip II made a profit, on average, and were, at least on an *ex post* basis, sufficiently compensated for the risks they ran. *Ex ante*, the case for lending to the monarch was bolstered by the Spanish monarchy's fundamentally sound fiscal position and by its record of accommodating past defaults with conversions into long-term debt rather than resorting to outright repudiation. While repudiation could never be ruled out, it ran counter to Philip II's interests, for it would kill the goose (or geese) that laid the golden eggs. France in the 1700s was a much riskier proposition in view of its steadily worsening fiscal position even in peacetime. Investors did receive a premium over the rate of return on English debt, but it is less obvious that this amounted to a favorable risk-reward ratio. On an *ex post* basis, relative interest rate stability prevailed until around 1770, meaning that the gamble could have paid off for an extended span

[15] Although it is not clear that this necessarily had anything to do with the past history of defaults, French bond yields (as reflected in *rentes*) remained substantially more volatile than British consols over the post-1825 period (Brown, Burdekin and Weidenmier, 2006).

of time even after the deterioration in French finance was well underway. With hindsight, there was a great buying opportunity at the interest rate peak in 1771, provided, of course, that one got out before the disaster to follow.

Among more recent cases of serial default, it is difficult to think of any whose features match those of Spain under Philip II. The French case appears more typical, indicating that there is the need to at least factor in the possibility of total loss. Investors may stand to reap great profits from buying at the right time, but they should not lose their head by placing too much faith in an issuer that has already demonstrated an inability to balance the books.

4. Default Waves: Europe vs. Latin America

The first wave of defaults in the overall historical record occurred during 1800-1815 and was an obvious consequence of the Napoleonic Wars. Subsequent default waves over the period 1820-2008, however, in which Latin American countries featured prominently, have typically been associated not with war, but instead with international financial crises combined with global recession/depression. This developed as the loci of sovereign defaults moved from the old core countries of Europe towards the periphery. In fact, the first post-1820 default wave involved 14 of the 20 new Latin American nations that had gained independence from Spain and Portugal (Table 1a). It was triggered by an international financial crisis (Marichal, 1989), fueled in part by revolution, war, and ongoing conflicts.[16] A second wave, in the 1870s, corresponded to another financial crisis, which began in London but primarily affected weaker economies in the periphery, above all Latin America (seven casualties; Table 1a).[17]

[16] The defaults of the 1820s were not entirely confined to Latin America; they included, for example, the aforementioned Greek default of 1826.
[17] Kaminsky, Reinhart and Végh (2004), among many others, provide evidence on procyclical capital flows.

The 1870s wave was more a Latin American wave than a general-financial-crisis wave, for, in Europe, only Turkey's 1875 default fell in that period. A more diverse range of defaults followed in the 1890s. Feis (1930, p. 12) notes that the financial pressures fueling the US Panic of 1893 were accompanied by defaults in Argentina and elsewhere in Latin America, reductions in interest payments by Greece and Portugal, and additional financing problems in Serbia and Spain. Interestingly, there was at least some transmission of default from Latin America back to the original colonial powers, and Feis (1930, p. 243) remarks that the 1891-1892 financial crisis in Brazil "provoked a similar crisis in Portugal" when the government was unable to honor pledged interest on railroad bonds in January 1892.

The third wave was associated with the Great Depression of the 1930s. During 1929-1939, defaults occurred in 15 countries in Latin American, 10 in Europe, one in Africa and one in Asia (Table 1a). Of the 32 total defaults over this span, 18 took place in Latin America, eight in newer European countries (Bulgaria, Czechoslovakia, Greece, Hungary, Poland, Romania, Turkey and Yugoslavia), and four in just two older European countries (Germany and Austria). Germany's 1932 default, however, turned on war reparations imposed at Versailles. In addition, Germany's default in 1939 and Austria's in 1938 stemmed directly from war. Thus, 30 of the 32 defaults can reasonably be attributed to the Great Depression *per se*, with Latin America countries accounting for 56.3% percent of these defaults and newer European countries, with weaker institutions, for almost all the remainder.[18]

The fourth wave was the Latin American "Lost Decade" from 1982 through the early 1990s, which seemed to spread to many African countries as well. The Lost Decade is conventionally dated to start from Mexico's default in 1982, but many analysts include a number of similar defaults in the late 1970s. Between 1976 and 1992,

[18] As noted earlier, the broader array of 1930s defaults listed by Eichengreen and Portes (1986, 1989) includes selective or partial defaults, whereas total defaults were concentrated primarily in Latin America and New Europe.

Table 4
Gaps between Defaults, and Defaults per Country, 1975-2008

	Defaults		Average Gap	
	Mean	Standard Deviation	Mean	Standard Deviation
Africa	1.49	0.79	6.65	4.82
Africa + Europe	1.49	0.74	7.00	5.43
Africa + Europe + Asia + Latin America	1.52	0.81	7.00	5.43

The 93 countries defaulting during 1975-2008 are distributed as follows: Africa 41, Europe 12, Asia 14, Latin America 26.

See Notes to Tables 1a and 1b for data sources.

22 Latin American states (out of 27) in Table 1a had defaults, while 9 of the 14 New Europe countries also defaulted in this wave. As detailed in Table 1a, 38 of the 42 African countries show defaults, along with eight of the 17 Asian countries. Altogether, this fourth wave engulfed 77 countries, accounting for over 68% of the total sample of 112 countries for 1945-2008. Multiple defaults during 1976-1992 were recorded for eight countries of Latin American, 11 in Africa, one in Asia and three newer European countries; the most frequent defaulters were Peru and Togo, with four defaults each (during 1976-1984 and 1979-1991, respectively).

The Lost Decade is included in Table 4's overview of defaults for the period 1975-2008. The average number of defaults over this longer span was close to 1.5 per country, with an average interval of around seven years between defaults, as against an average interval of over 50 years for the pre-1900 European defaults (Table 2). However, analysis of defaults in the 1975-2008 period naturally involves a much shorter sample than is available for the prior historical record, and most of the 93 countries that defaulted during this 34-year period still only defaulted once; 33 (just over one-third of the total) had more than one default, while 10 had more than two.

The Drastic Change after 1975

The much greater frequency of default after 1975, and the calamitous Lost Decade of the 1980s, followed a surge in the number of independent states in the years after the Second World War.[19] The total number more than doubled, and many of the new countries had weaker institutions than those included in the earlier sample. It must be remarked, however, that the defaults show a high concentration in the Lost Decade of the 1980s, coinciding with the fourth wave identified by Marichal (1989). Plainly, it would be premature to think of this as necessarily representing a permanent shift in the pattern of sovereign default.

The much lower incidence of default in 1945-1974 compared with post-1975 is partly a product of the persistence of capital controls after the Second World War. Following the First World War, international financial markets had rapidly rebounded, with London and New York open for business and major banks in France, Germany and Austria operating again, allowing funds to be transferred with relative ease around the world. Following the Second World War, by contrast, capital controls remained in force for many years; indeed, the first three decades after the end of the war in 1945 unfolded in what was an almost frozen world, with goods markets as well as capital markets highly constrained.[20] Only later did the international system regain the economic freedom that had marked the years preceding the First World War.

5. Conclusions and Implications

The overall record of sovereign default is highly heterogenous and, what is more, shifted substantially following its extension from

[19] The first post-war wave of new countries came from the decolonization of European possessions in Asia and Africa, starting with India in 1947 in Asia and Ghana in 1957 and ending with Angola and Mozambique in 1974 and 1975. The second wave followed the collapse of the Soviet Union at the end of the 1980s.

[20] The United Kingdom, for example, maintained capital controls until the new Thatcher government abolished them in 1979.

the old core countries of Europe to newer nations, especially those of Africa, Asia and Latin America. The Lost Decade of the 1980s saw a sharp escalation compared with the more limited set of earlier post-1820 serial defaults, which were mainly confined to Latin America. Serial defaults and default waves remain relatively rare across the full historical record. The defaults of the eighteenth century have little predictive ability for those of the nineteenth century. Furthermore, most of the countries that defaulted during the Napoleonic Wars had never defaulted before nor did so again. Although France had been a serial defaulter, defaulting ten times between 1558 and 1788, this pattern ended abruptly with zero defaults after 1812. Spain, a serial defaulter in the sixteenth and seventeenth centuries, did not default again until 1820. The serial defaults and default waves that have become much more widespread in recent history have primarily involved newer nations with a degree of external dependence not seen among the original group of major European powers. While including many self-inflicted wounds, the most widespread default waves in the periphery have typically stemmed in part from negative shocks emanating from the old core group of past defaulters.

There is always the risk that new shocks, such as the unprecedented shutdowns of economic activity during the Covid-19 pandemic, could give rise to a repeat of the unfortunate events of the 1980s (see Bulow et al., 2020; Buchheit and Gulati, 2021). Nevertheless, the greatly reduced incidence of default after Marichal's (1989) fourth wave provides plenty of room for optimism.[21] And the history of the core group of long-established European nations clearly illustrates that initial defaults do not necessarily beget future defaults. Among that group, France's *Ancien Régime* stands out as the only clear case where defaults reflected a progressively worsening fiscal balance which was not just a product of the war-related shocks that accounted for almost all the defaults in Old Europe. Whereas coun-

[21] Reinhart, Reinhart and Trebesch (2016) observe that the worldwide incidence of sovereign default remained relatively impervious even to the double-barreled slump of commodity prices and capital inflows recorded after 2012.

tries on the periphery may be vulnerable to external shocks somewhat akin to the wartime shocks of old, the French case serves as a powerful warning of the dangers of combining external vulnerability with underlying non-sustainability. As demonstrated by sixteenth-century Spain, even relatively frequent defaults can be weathered, provided lenders perceive the country's fiscal apparatus to be fundamentally sound and capable of eventually generating the funds required for repayment. Moreover, Japan's experience shows that movement from the periphery to the core is certainly possible. Other Asian countries, such as China and Korea, have been making that transition. Indeed, concerns about sovereign defaults in the wake of the global financial crisis have largely shifted from the old epicenter of Latin America to Greece and Southern Europe.

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