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# Will History Rhyme? The Past as Financial Future<sup>1</sup>

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### Abstract

History demonstrates that global capital markets can contract as well as expand. A longterm view of finance suggests that we should prepare for periodic segmentation as well as integration of markets in the 21<sup>st</sup> Century. Anti-capitalist ideologies have historically been the vectors of attack on the cross-border flow of capital, however the fundamental cause may actually be domestic hostility towards foreign ownership and control. The roots of the conflict between domestic interests and foreign investors may be inherent in global equilibrium models. In a frictionless capital market, foreigners will always own a greater proportion of a small economy's assets. By the same token, domestic investors in small economies will always seek to export most of their capital. This equilibrium is at odds with a stable condition of national ownership and control of assets.

JEL: N23, N24, F3

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#### A View from the Past

No exercise in futurism can afford to ignore the lessons of history. As we look forward and consider the future development of capital markets, one key question is whether the 21<sup>st</sup> century will resemble its predecessor. The close parallels between world finance 100 years ago and world finance today suggest that the past might help us prepare for events to come.

The turn of the 19<sup>th</sup> Century is widely regarded as the first great age of globalization.<sup>i</sup> The future of financial markets at that time must have seemed limitless. Then, as now, markets were expanding, barriers to capital flows were low and businesses could tap vast pools of investor wealth through the public capital markets. Thousands of different issues of stocks, bonds, options and futures were traded on large, well organized global exchanges in the major European capitals of London, Paris and Berlin. Further afield, securities exchanges and sophisticated banking institutions existed in cities like New York, Hong Kong, Shanghai, St. Petersburg, Tokyo and Buenos Aires, to name only a few. Indeed, by 1904, there were active stock and bond exchanges in at least forty countries around the world, and European investors were being urged by experts to internationally diversify their portfolios.<sup>ii</sup>

In Table 1, an empirical study of the securities issued on the world's exchanges in 1910 (from an unlikely source) shows Britain, U.S., France and Germany as the dominant money markets, but other European nations comprised a significant share of world finance as well.

Ta	ble	$1^{m}$
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(000,000,000 frailes)					
Great Britain	142	Holland	12.5		
United States	132	Belgium	7.5		
France	110	Spain	7.5		
Germany	95	Switzerland	6.25		
Russia	31	Denmark	3.75		
Austria-Hungary	24	Sweden,			
Italy	14	Norway,	2.5		
Japan	12	Rumania, etc.			

#### FINANCIAL SECURITIES CURRENT IN 1910 (000 000 000 francs)

(Source: V. Lenin, 1917, Imperialism: the Highest Stage of Capitalism)

Then, like today, investors relied upon quantitative research as an aid to portfolio construction. Guides like Henry Lowenfeld's *Investment, an Exact Science* (1909) demonstrated to British investors how a well-diversified global portfolio could reduce risk. Figure 1 is taken from his book. It charts the individual prices and dividends of each of ten securities drawn from around the world. Despite dramatic individual security price movements over the period 1897 to 1906, Lowenfield's diversified portfolio (labeled in the graph) remained remarkably stable. The implication was that international investing made your nest egg safer. This global investing approach was not limited to Britain. On the continent, Rudolph Taüber's (1911) *Die Börsen der Welt*, showed German investors how to access global equity markets as well.

Faith in the capital markets as a mechanism for savings made possible an unprecedented burst of infrastructure development extending throughout North America, South America, Asia and Africa -- all financed by the massive export of capital from French, British and German investors seeking returns and diversification through crossborder investment. The number of securities listed on the Stock Exchange of London in 1900 demonstrate the sheer magnitude of opportunity. The June, 1900 volume of *The Investors Monthly Manual*, a comprehensive list of the Exchange, contains prices for 9,250 individual securities. Roughly half of these were foreign or colonial obligations.<sup>iv</sup>

To get an informal sense of the reach of British foreign investments at the time, think of the lyrics to "Fiduciary Fidelity Bank" from the musical Mary Poppins. A song to lure a child into an investment of two-pence goes, in part:

...you'll be part of Railways through Africa, Dams across the Nile, Fleets of ocean greyhounds, Majestic, self-amortizing canals, Plantations of ripening tea... Bonds! Chattels! Dividends! Shares!, Bankruptcies! Debtor sales! Opportunities! All manner of private enterprise! Shipyards! The mercantile! Collieries! Tanneries! Incorporations! Amalgamations! Banks! <sup>v</sup>

A more serious commentator on this period of financial expansion, Pulitzer-Prizewinning historian Herbert Feis called turn-of-the-century Europe "The World's Banker" and noted close connections between the world of finance and the world of diplomacy. In his view, the global financial architecture of the time depended on the expansion of national interests and shareholder protections to distant countries – an expansion facilitated by colonial or semi-colonial rule. The British colonization of Egypt, for example, resulted directly from a financial "workout" in the 1870's of the Ottoman Khedive's enormous debt – a workout that included foreign control of domestic revenue sources. In part through similar financial processes, the entire world was ultimately carved up into a few major colonial empires.

#### Contraction

The first blow to global financial architecture in the young 20<sup>th</sup> Century was a war of surpassing scale. World War I drained European investment coffers in a few short years, shutting down the world stock markets for many months and ultimately crippling the once-dominant London Exchange.

The second blow was ideological. In 1917, a political backlash against international finance culminated in the repudiation of international debts by the Bolshevik government in Russia, as well as introducing a vast nationalization of industry and the virtual elimination of property rights on which the foundations of financial claims rested. Surprisingly, the financial markets in Russia and the world's capital markets did not seriously anticipate the magnitude of the reversal of fortune that awaited. Like many capital markets, the St. Petersburg Exchange was closed from 1914 to early 1917. When it opened in February of that year, Russian share prices were significantly *higher* (correcting for inflation) than when the market had closed in 1914. However, that was its final fluorescence. The Russian market shut down the following month due to political upheaval and did not re-open for more than seventy years.<sup>vi</sup>

The Bolshevik Revolution in Russia was the beginning of the deconstruction of the integrated global economy, and it was only the first of many catastrophic ruptures. The post-World War I period will be long be remembered as an era of protectionism enforced by rising tariffs, the erosion of the gold standard, the appearance of hyperinflation, and the emergence of fascism in Europe which, among other things, sought to enable a strong, nationalistic government to marshal the power of business and industry to its designs. By 1930, *The Economist* simply stopped publication of its comprehensive statistical supplement, *The Investor's Monthly Manual*. Markets themselves began to close in the 1930's and 1940's. Hyperinflation shuttered the exchanges in Germany, Hungary and Greece for much of 1931 and 1932. Spanish markets closed from 1936 to 1940 due to war. From 1938 through 1941, most continental stock markets closed intermittently, and when they were open, prices were sometimes sharply regulated by the government.<sup>vii</sup> Virtually all of the Eastern European markets closed for good at the end of World War II. Although many South American markets remained open, the real economic returns to investors in equity markets such as Chile and Peru were both poor and volatile.

After the Soviet Union extended its political sphere to Eastern Europe, and China ultimately consolidated under a Marxist government in 1949, the world was effectively divided over the question of whether finance was a force for great good or great evil. After mid-century, Arab Socialism effectively nationalized Egyptian industry and Marxist-Socialist revolutions in Cuba, Chile and Portugal cut these nations off from the economic freedoms provided by world capital markets in favor of localized and intrusive governmental control. In just a few decades, the world capital markets had gone from a Golden Age to the Dark Ages.

Did nineteenth century financiers recognize the signs of an impending global backlash to financial expansion in the early years of the 20<sup>th</sup> Century? Criticisms of capitalism were legion in the era following the publication and translation of Karl Marx's *Das Kapital* (1867 and ff.). Two of the most important rebukes to the global expansion of financial markets were John A. Hobson's (1902) *Imperialism: A Study*, and

Vladimir I. Lenin's (1917) *Imperialism: The Highest Stage of Capitalism --* the first by an economist the second by a revolutionary. The former developed a shrill ideology and lexicon around anti-imperialism which remains largely intact in academic discourse today. In the latter, however, Lenin often let the facts and figures of global financial expansion speak for themselves. What we now read as evidence of financial progress Lenin viewed as *prima facia* evidence of exploitation. The book is filled with tables documenting European foreign investment. For example, Table 2 estimates the growth in foreign investment by Great Britain, France and Germany from 1862 to 1914. Table 3 shows the geographical distribution of the three countries' capital in 1910.

Table 2

CAPITAL INVESTED ABROAD						
(000,000,000 francs)						
Year	Great Britain	France	Germany			
1862	3.6		_			
1872	15.0	10 (1869)	_			
1882	22.0	15(1880)	?			
1893	42.0	20(1890)	?			
1902	62.0	27-37	12.5			
1914.	75-100.0	00	44.0			

(Source: V. Lenin, 1917, Imperialism: the Highest Stage of Capitalism)

# Table 3

# DISTRIBUTION (APPROXIMATE) OF FOREIGN CAPITAL IN DIFFERENT PARTS OF THE GLOBE (circa 1910 in 000,000,000 marks)

(circa 1910 in 0	00,000,	000 ma	IKS)	
	Britain	France	Germany	Total
Europe	4	23	18	45
America	37	4	10	51
Asia, Africa, and Australia	29	8	7	44
Total	70	35	35	140
(Source: V. Lenin	n, 1917,	Imperi	alism:	

the Highest Stage of Capitalism)

Lenin interpreted these tables as evidence of a new stage in the development of capitalism. In his words, "Typical of the old capitalism, when free competition held undivided sway, was the export of goods. Typical of the latest stage of capitalism, when monopolies rule, is the export of capital." In Lenin's view, this export of capital had become a "... basis for the imperialist oppression and exploitation of most of the countries and nations of the world, for the capitalist parasitism of a handful of wealthy states!" Of course foreign investors did not see it this way. They found it difficult to believe that such extreme views of capitalism could actually prevail. For example, in December, 1917, at the London annual meeting of the venerable Kyshtim Mining Corporation, a major copper concern in the southern Urals, board member Leslie Urquhart assured shareholders:

As to the question of how the vital interests – that of the ownership of our properties – are likely to be affected by the happenings in Russia, I would say as definitely as I possibly can that the statements of the absurd Bolshevik usurpers as to the repudiation of contracts should not be taken seriously; they are the ravings of crazy men ... are all of these people going to give up their heredity and private ownership rights in order to satisfy the socialistic ravings of madmen and the greed of the landless proletariat of the towns? ... I have a passionate certainty of conviction that all this chaos and anarchy in but the cleansing fire which will get rid of all that is rotten and make Russia purer and greater (hear, hear).<sup>viii</sup>

Urquhart's fiery speech put a brave face on investors' plight. No dividends had been paid on Kyshtim for years, and the annual accounts were unavailable to shareholders due to the revolution. Remarkably, investor expectations in 1917 may have coincided with Urquhart's optimism. The trading range of Kyshtim stock had remained relatively stable between 2 <sup>3</sup>/<sub>4</sub> and 1 <sup>1</sup>/<sub>2</sub> through the years 1915 through 1918, after which it ceased to be quoted.

#### We Have Come a Long Way – Back to the Past

Although Lenin may be turning over in his tomb, we have now finally regained the scale and scope enjoyed by the international financial capital flows of a century ago. Virtually all of the states that "seceded" from the global financial markets in the 20<sup>th</sup> century have returned in one way or another, even though our financial architecture is much different now from what it was in 1904. We are no longer configured as a set of colonial empires and international financial trusts. While "money center" markets like the NYSE are growing in importance as sources of capital through direct listing, in our politically segmented, post-colonial world, many countries have developed their own internal capital markets with domestic exchanges, securities laws and regulation. International institutions like the World Bank and the IMF now serve as a buffer between debtor and creditor nations and interrupt the dynamics that led in the past to the compromise of national sovereignty. Indeed, some of the very problems of "unfettered capitalism" decried by Lenin were corrected in the 1930's in the United States and other countries with the evolution of anti-trust laws and financial market regulation.

Today, an increasing number of people have a stake in the continued expansion of the capital markets. In particular, finance is a growing portion of the U.S. economy. According to government statistics, the FIRE (Finance, Insurance and Real Estate) sector of the economy grew from 13% of U. S. gross domestic product [GDP] in 1959 to 21% of GDP in 2002, roughly doubling its share of national employment.<sup>ix</sup> This expansion

of the financial sector may lead to a greater, broad-based commitment to its success, at least in the U.S. At the same time, it is difficult to gauge the penetration of the financial industry in emerging markets. The rapid emergence of a professional class in China and the growth of Shanghai as a financial center suggest that the U.S. trends are international, even though China's recent policies have sought to re-direct growth towards other sectors of the economy as well.

#### Will History Rhyme?

Will all of the modern, structural changes to the global financial sector prevent a backlash of the kind experienced in the early 20<sup>th</sup> Century? As Russia and China appear poised to re-enter the global financial community, can we really say that the structural collapse of global finance after World War I could not happen once again in the 21<sup>st</sup> Century? Might there exist a fundamental contradiction between the prerogatives and imperatives of the modern nation-state and the motivation by investors to transcend borders? To answer this question, it is worth considering whether the factors that led to the attack on financial capitalism are no longer a threat.

The near-complete rejection of Marxism-Leninism in Russia in the last decade, and the more gradual but persistent erosion of anti-capitalist rhetoric in China over the same period suggest that the century-long ideological attacks on capitalism and financial markets may have finally abated. The reasons for this are clear. Capital is a necessary input to economic development, regardless of ideology. Indeed, modern Chinese leaders do not regard the listing of Chinese company shares on the New York Stock Exchange as incompatible with their policies. In light of this, it is worth considering the possibility that Marxist ideology was not the sole cause of the anti-capitalist revolutions around the world. Instead, one might argue that the rejection of capitalism in Russia in 1917 and China in 1949 was not due to their failures in international capital markets but rather due to their success in attracting foreign investment. This logic would imply that foreign investment may plant the seeds of nationalistic expropriation.

#### Another look at The Russian and Chinese Experiences

Consider the success that Pre-Revolutionary Russia enjoyed in tapping external capital for development. Although Lenin railed against external control of the Russian banking system, the fact is that foreigners around the turn of the century were nearly falling over themselves to invest in Russia. Twenty-five percent of France's foreign investment in 1914 was in Russia alone. The foreign ownership of Russian debt grew from 30 percent in 1985 to 48 percent in 1914. Feis estimates that by 1914, 1/3 of Russia's private enterprise was financed by French investors, <sup>1</sup>/<sub>4</sub> by British investors and 1/5 by German investors. Even if this is an over-estimate, if anything close to 80 percent of private Russian enterprise was financed abroad, it would seem to have engendered a powerful nationalistic incentive to reclaim assets from foreign capitalists.

The motivation for China's first revolution in 1911 is also instructive. Since the beginning of the century, China had been remarkably successful in attracting foreign funding for domestic railroad development. Her loans were widely sought for issuance by international syndicates of investment banks and cross-listed on all the major European exchanges. Thanks to the globalization of financial markets, in the span of about 20 years, China had built much of her modern railway system.

However, there were strong negative domestic reactions to sourcing external capital, and to the extra-territorial concessions required to do so. In particular, large-scale public protests were sparked by Imperial capitulation to foreign financial institutions associated with the issuance of the Hukuang Railway loan of May, 1911. Chinese not only resented the terms of the contract but also the preferential rights and treatment accorded foreign rail companies compared to those given to firms controlled by domestic investors. The Imperial government fell within a few months of the event. Negative stereotypes of capitalism have a long life. The revolution that brought the current Chinese government to power adopted much of the same anti-capitalist and anti-foreign investment rhetoric of the 1911 revolution.<sup>x</sup>

#### Lessons for the Future of Finance

It is easy to interpret the expansion and contraction of markets in the 20<sup>th</sup> Century as the result of an on-going struggle between capitalism and communism. However this does not entirely capture the more fundamental conflict between foreign and domestic stakeholders apparent in both the Russian and Chinese revolutions. Although both China and Russia today have begun to embrace forms of capitalism, this trend may still mask an inherent resistance to foreign ownership or claims upon domestic enterprise. With the demise of Marxism we might expect to see the rise of alternative ideologies that align domestic antagonism against external capital.

Consider, for instance, the Islamic Revolution in Iran which nationalized large parts of Iran's industry in 1979 – with foreign ownership falling victim to national interests. The once vibrant stock market in Tehran languished until the mid-1990's when

Iran sought to rejuvenate it as a source of financing. Fearful of foreign control, only recently has it allowed significant foreign ownership of corporations. While not a Marxist revolution, the rejection of foreign influence in Iran had the same effect of removing the economy from the global financial markets on ideological pretext.

The financial lesson of the Islamic Revolution in Iran is that extremist rejection of international investment and financial institutions continues into modern times in different guises. When it happens, events can move rapidly and with little warning of their ultimate magnitude. While such withdrawals from the international financial network can be reversed, healing happens slowly, fitfully and with a difficult process of institutional re-adaptation. Never the less it is heartening to see that Iran has begun to follow China's lead in privatization, and is willing to allow limited international ownership of shares in domestic corporations.

#### Financial Perspective

One of the most insightful theories in modern finance is the Capital Asset Pricing Model [CAPM]. Although stylized and dependent upon many restrictive assumptions, the CAPM has sharp predictions about portfolio investing and the ownership of assets in an ideal world. Assuming frictionless capital markets in which claims on all assets can be freely traded, and in which there are no competitive informational advantages, the CAPM implies that all investors will hold the same diversified portfolio of the world's assets with portfolio weights based upon each asset's market capitalization.

This means that investors in the United States will hold a significant portion of their portfolios in U.S. stocks, while investors in, say, Somalia, will export nearly all of their capital. From the point of view of a small economy, most investors will be foreign investors, because the composition of the investor base of any stock will be proportional to the relative wealth of world investors. Few, if any, countries will have their assets owned predominantly by domestic investors. In a CAPM world, all countries would find Bill Gates to be their largest investor, but of course even he would not have enough of a stake to exert personal control. Interestingly, this equilibrium is not driven strictly by modern theory, but rather by the investor's very real motivation to pick each new investment based on how it will affect the risk of the portfolio. This is the very motivation that inspired Henry Lowenstein's 1909 recommendation of a geographically diversified array of international securities.

#### What is the Problem?

Like many theories in economics and finance, the CAPM has some often overlooked political implications. If one believes that businesses should act in the national interest rather than in shareholder interests, the CAPM in an international setting presents a problem. The stake-holder view of corporations is that they exist to provide positive externalities such as jobs or infrastructure.<sup>xi</sup> To the extent that domestic ownership of corporations will make these positive externalities more likely, the CAPM world is not necessarily an attractive one to citizens of a state. In the CAPM world, domestic investors keep exporting their capital overseas, despite local development needs, and investors willing to invest locally have no personal stake in domestic social and environmental conditions unless they affect financial claims. For the most part, the ideal, diversified investor portfolio in a CAPM world cuts across national boundaries and ignores government. Although international versions of the CAPM modify this conclusion somewhat – particularly when exchange rate risk comes into play, it remains a broad equilibrium theory about all the world's investors and all the world's assets. As such, the CAPM predicts that investors' interests will always be in conflict – or at least orthogonal – to many of the interests of the nation-state.

While we never expect to achieve those ideal, theoretical conditions under which the CAPM holds in the world economy, the historical processes of globalization suggest that as transparency and investors' legal recourse increase and barriers and frictions preventing cross-border capital flows decrease, investors tend to behave as predicted by the theory. They broaden their international investment portfolios and diversify their holdings. The increasing number of foreign corporations listing on U.S. exchanges over the past two decades bears this out.

The globalization of investment during periods of liberalization may be reason for caution. History suggests that it is precisely at the point when barriers to capital flows are lowest that religious fanaticism and xenophobic resistance to foreign capital can emerge, and ideological arguments and caricatures of capitalism may be used to generate antagonism against financial markets and institutions.

#### Conclusions

My personal views on the future of finance? Like the famous forecast of the stock market, I expect it to fluctuate. If history is a guide, we should expect the capital markets to enjoy periods of great success. These markets bring investors, firms and governments closer to an equilibrium characterized by positive rates of return on

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investment, along with a supply of liquid capital. Open access to capital brings with it a dramatic reduction in risk to individual savers through extended international diversification. We are in such a period now, and I hope it will continue for a long time. The positive policies on stock markets and on cross-border listing of securities from governments traditionally hostile to capitalism and foreign investment are a cause for optimism, and yet it remains to be seen whether governmental enthusiasm for liberalization is shared by individual citizens and domestic interests. To the extent that the openness of capital markets around the world increases local opportunities for domestic entrepreneurship and domestic investor diversification in all of the world's markets, modern globalization has a long future.

On the other hand, the nature of humanity is mistrust of outsiders and jealousy of other's good fortune. Thus, the greatest risks of financial contraction arise in periods of expansion. Given that the past 20 years have seen nearly an unprecedented interval of financial liberalization around the globe, characterized as much as anything by cross-border investment but also by rising inequality in developed nations like the U.S., I expect we will face calls to reign in global financial markets in the near future.

What form might this take? Consider the rhetoric following the Asian currency crisis of 1997. Recall Malaysian Prime Minister Muhatir Mohammet's xenophobic speeches, the blame upon international hedge fund managers for the crisis, and the tacit acknowledgement by even some leading economists that shutting the borders to investment might really be a good thing after all. We will hear the same kind of things after another shock to the financial system, and if this rhetoric gets mixed together with a

popular political or religious ideology, we might see real global financial contraction once again.

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• NOTE.—Geographical Division of Capital necessitates an equal division over similar stocks, every one of which is <u>subject to a different trade influence</u>. In quality and difference in trade influence only have been complied with, the <u>Capital division</u> is quite unavern. If an even Gapital division had been have started from the same point, and this would have made the Chart quite undecliberable. For this reason the above is not a perfect investm is a started from the same point, and this would have made the Chart quite unavoinerable. For this reason the above is not a perfect investm is a started from the same point, and this would have made the Chart quite unavoinerable. For this reason the above is not a perfect investm is a started from the same point. Velue £ £ (CO) Ð 60 A 10,185 10,096 GEOGRAPHICALLY 10,146 1899 1900 ----Chart Shewing Movement of Value. 10,021 9,965 10,176 DISTRIBUTED 10,022 9,862 + 10,196 ĥ ----Ţ 10,166 \* INVESTMENTS\* PRODUCING O OOO Capital-Total Annual Values-Income £ Geo-graphical Division. INTER-NATIONAL AMERICA, SOUTH. AMERICA, CENTRAL EUROPE, North. **BRITISH** COLONIES BRITISH. AMERICA, NORTH. AFRICA. EUROPE, SOUTH. ASIA.  $\Theta$  $\odot$ Θ  $\odot$ ) £500 Great Western Brazil Rly. 6% Perm. Debs. ... ... ) £900 International Invest. Trust 4% Perp. Debs... ... ) £1,100 Denver & Grande 4% 1st M G. Bonds ... £900 Interna Invest. Trust Perp. Debs.... £1,000 Italian 5% Quantities and Names of Stocks. £1,000 Cons. Ser. 1. £1,000 Japan 5% 1895-6 £800 Mexican Railway 6% Debs. ... £900 Cape Town 4% 1943 £900 Canadian Pacific Rly. 4% Perp. Debs. £1,000 India 31% J Russian 4 % s. R. Rd. Bonds, ... ... Rentes Mtg. Stk. PER 1899 1900 1901 1902 ω<sup>ε</sup> Table Shewing Annual Income. In the above n adopted all a CENT. list from Chart the conditions of similarity zig-zag price lines would of necessity PER 8 85 1903 1904 1905 ANN. Si th 

Figure 1: Geographically Distributed Investments Producing 4% Per Annum. From Lowenfeld, Henry, 1909, *Investment an Exact Science*, The Financial Review of Reviews, London.

#### Notes

<sup>i</sup> See, for example, Bordo, Taylor and Williamson (2003)

<sup>ii</sup> A 1909 British guide to international investing, by Henry Lowenfeld, *Investment an Exact Science*, lists investable countries as : Great Britain, India, Canada, Australia, Tasmania, New Zealand, Straits Settlements (Singapore), Belgium, Denmark, Germany, Holland, Norway, Russia, Sweden, Switzerland, Austria, Bulgaria, France, Greece, Italy, Hungary, Portugal, Roumania, Spain, Serbia, Turkey, Japan (Tokio and Yokohama), China (Shanghai and Hong Kong), Cape Colony, Natal, Transvaal, Egypt, U.S. (New York), Mexico, Argentine, Brazil, Chile, Peru and Uruguay.

<sup>iii</sup> Lenin draws these figures from the *Bulletin de l'institut international de statistique*, t. XIX, livr. II, La Haye, 1912. Data concerning small states, second column, are estimated by adding 20 per cent to the 1902 figures.

<sup>iv</sup> A complete database of the securities on the London Stock Exchange is available for download at the website of The International Center for Finance, Yale School of Management, <u>www.icf.yale.edu</u>.

<sup>v</sup> Richard M. Sherman and Robert B. Sherman, 1964, soundtrack to *Mary Poppins*.

<sup>vi</sup> A complete database of shares traded on the St. Petersburg Exchange is available for download at the website of the International Center for Finance, Yale School of Management, <u>www.icf.yale.edu</u>.

<sup>vii</sup> See Goetzmann and Jorion (1999)

viii The Times, Saturday, December 15, 1917, p. 12 Issue 41662 col. F

<sup>ix</sup> See *The Economic Report of the President, 2004* Table B-12.

<sup>x</sup> Economists Rajan and Zingales have developed their own theory to explain the great advances and declines of global financial markets that is based on a model of entrenched domestic financial interests resisting incursions by foreign investors. It is, different and perhaps more sophisticated than the model presented here, although the two are not necessarily contradictory.

<sup>xi</sup> See, for example Roy (1999)