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A TALE OF TWO 'GLOBALIZATIONS': CAPITAL FLOWS FROM RICH TO POOR IN TWO ERAS OF GLOBAL FINANCE

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ABSTRACT

In this paper we take a comparative look at the patterns of capital flows from rich to poor countries in two eras of financial globalization. The paper extends recent research on the developmental effects of international financial integration, long-term trends in capital mobility and 'globalization in historical perspective'. Analysing the patterns of international financial integration in the three decades of the classical gold standard and after 1990 we show that investment in developing countries was a central element of 19th century financial globalization, but plays only a minor role today. The Lucas paradox of capital failing to flow from rich to poor has grown much stronger. In historical perspective, today's financial globalization is marked by massive diversification flows between high-income economies and a relative marginalization of less-developed economies. Copyright © 2006 John Wiley & Sons, Ltd.

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Whether less-developed countries reap tangible benefits from financial globalization is a much-debated issue among economists and policy-makers. Most economists agree that the benefits can be substantial. International financial integration allows for risk sharing, consumption smoothing and the efficient allocation of capital. According to standard economic models financial globalization should create particular opportunities for less-developed countries. Rich countries' savings could finance much-needed investment in poor countries, increasing the rate of return on savings in industrial and economic growth in developing countries. Such theoretical arguments underpinned the policy of capital account liberalization in many parts of the developing world during the 1990s.

Yet, the celebration of the developmental benefits of financial globalization proved somewhat premature.[1] Empirical cross-country studies have found little discernible growth effects of financial opening (Rodrik, 1998; Edwards, 2001; Edison *et al*., 2002). Many scholars argue that the record of financial globalization is disappointing and doubt that it brings notable benefits to poor countries (Bhagwati, 1998; Tobin, 2000; Aizenman *et al*., 2004; Gourinchas and Jeanne, 2004). Obstfeld and Taylor hold that 'international investment in poor countries is at an all time low today' (2003a, p. 175). Also the research department of the International Monetary Fund (Prasad *et al*., 2003) and the liberal weekly Economist (The Economist, 2003) have become more sanguine about the developmental benefits of financial integration. In other words, the debate about globalization's effects continues—and sometimes reminds of the old question, if a glass is half-empty or half-full.

The present paper takes a comparative look at the patterns of international financial integration. What we aim to do is to benchmark the present to the past. It is well-known that financial globalization is not an unprecedented phenomenon. The world economy at the beginning of the 21st century has much in common

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with the early 20th century when—in the famous words of Maynard Keynes—the resident of London could 'adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages' (Keynes, 1920, p. 10). Given these historical parallels, we ask a simple comparative question: how did financial globalization perform now and then in channeling capital to poor economies?

Another famous economist, Joseph Schumpeter, once wrote that 'we need statistics not only for explaining things, but also in order to know what there is to be explained' (Schumpeter, 1954, p. 14). Following Schumpeter's advice, the main contribution of the present paper is to systematize the available statistical evidence on the patterns of international investment in two eras of financial globalization, i.e. in the last fifteen years and in the three decades of the classical gold standard before WW1. The paper builds on and seeks to extend recent comparative studies on 'globalization in historical perspective' (Twomey, 2000; Bordo *et al*., 2003; Obstfeld and Taylor, 2003a,b, 2004; Ferguson and Schularick, 2006; Flandreau and Zumer, 2004; Mauro *et al*., 2002), but we also aim to contribute to research on long-term trends in international asset trade (Lane and Milesi-Ferretti, 2001, 2003).[2] Previous studies have shown that the degree of market integration was high before WW1—price measures, savings–investment correlations and current account imbalances support this conclusion (Bayoumi, 1990; Taylor, 1996; Jones and Obstfeld, 1997; Taylor, 2002; Obstfeld and Taylor, 2003a, b, 2004). A similar level of market integration was probably not reached again until the 1990s. International financial integration in the course of the 20th century can thus be thought of as a U-curve—showing high capital mobility at the beginning and the end with a trough in the middle.

Important pioneering empirical work on capital flows to developing countries in the first era of financial globalization has already been done by O'Rourke and Williamson (2000), Twomey (2000), Obstfeld and Taylor (2003a,b) as well as by Clemens and Williamson (2004). We intend to extend this literature in several ways, most importantly by making the comparison systematic: the first section of this paper looks at the 'depth' of financial globalization now and then using a standard volume-based indicator for international financial integration. In the second part we determine the share of developing countries in global financial flows (and stocks) in both eras. The third section presents a portfolio model for international investment and investigates to what extent real-world capital flows in both eras conformed to the diversification model. In the fourth part, we take a closer quantitative look at the so-called Lucas paradox of missing rich–poor capital flows in both eras. Last but not least, we present new estimates for net capital movements between rich and poor countries.

What do we find? Borrowing the title of Herbert Feis' famous book on the history of European foreign investment before WW1, we can show that in the first era of financial globalization the rich nations were indeed 'bankers to the world'. Almost half of all international investments before WW1 went to developing countries.

But the patterns of international financial integration have changed dramatically. Rich–poor capital flows are no longer a central element of financial globalization. The Lucas paradox of capital failing to flow from rich to poor has grown much stronger. Foreign capital also played a more important economic role in the economic development of developing countries (in relation to their output) before WW1 than it does today. In addition, in the late 19th and early 20th century international financial integration has led to massive net capital flows to poor countries, whereas today net capital movements between developed and less-developed economies are by and large flat.[3]

In brief, we will tell a tale of two different 'globalizations'. While economic history shows that international financial integration can be a benign force for development, the contemporary world economy has a long way to go to capture the potential benefits of financial globalization.

1. INTERNATIONAL FINANCIAL INTEGRATION IN THE LONG-RUN

Scale and scope of financial globalization before 1914 were truly impressive. Bonds of more than sixty governments and shares of companies from almost all continents and sectors were listed on European

exchanges. London was the undisputed financial centre of the world, but to some extent Berlin and Paris rivalled London's position in the sovereign loan market (Feis, 1965 [1930]). Restrictions on financial transactions were virtually absent, and cross-border financial flows reached unprecedented levels during the three decades of the classical gold standard. Between 1880 and 1914, Britain exported on average between 4% and 5% of her gross domestic product (GDP) abroad (Edelstein, 1982). Following in Britain's footsteps, the other developed European nations started to export capital in the last quarter of the 19th century and, after the turn of the century, also the United States joined the first global capital market boom as an exporter of capital. A similar boom of international finance took place in the three decades after the collapse of the Bretton-Woods system of fixed exchange rates and capital account restrictions (Eichengreen, 1998; Bordo *et al.*, 1999). From the late 1980s onwards, the liberalization of capital movements spread to the developing world. In the 1990s the global financial market was back. Financial globalization became a household word.

What was the overall degree of international financial integration now and then? The broadest possible measure is a volume-based index of international financial integration (IFI) that has been proposed by Lane and Milesi-Ferretti (2003). It relates the amount of (private) gross cross-border investment assets (GFA) to world GDP at a given point in time:[4]

$$IFI_{wt} = \frac{GFA_{wt}}{GDP_{wt}} \tag{1}$$

Estimates for the international assets of the main creditor nations for the year 1914 are available from historical statistics.[5] It is realistic to assume that on the eve of WW1 the combined international investments of the United Kingdom, France, Germany, and the United States—the four largest economies—were in the range of 7–8 billion pounds or about 35–40 billion (current) US dollars.[6] Data for other countries such as the smaller European capital exporters (Belgium, the Netherlands, and Switzerland) are more difficult to come by.[7] However, 8–9 billion pounds or 40–45 billion US dollars (at historical prices) are generally accepted as the best possible estimate for the global stock of foreign investment assets in 1913 (Maddison, 1995; O'Rourke and Williamson, 2000; Twomey, 2000; Obstfeld and Taylor, 2003a). If we try to calculate the degree of international financial integration for the pre-WW1 period, it turns out that the denominator—world GDP—is no less problematic than the numerator. A figure for world GDP in 1913 (at market prices) for the year 1913 is not available. Existing historical GDP series are later reconstructions which have been done only for the developed core economies. For this reason, historical studies are forced to apply an admittedly crude method to arrive at a global figure.[8] Maddison's (Maddison, 1995, 2001, 2003) estimates for real GDP in constant 1990 'international', i.e. purchasing power adjusted, dollars were 'deflated to historical market value' by the US GDP deflator. This method crucially hinges on a purchasing power parity (PPP) assumption, but remains the best available approximation. It yields a historical world GDP of about 210 billion US dollars on the eve of WW1. This would bring the level of international financial integration (the ratio of gross international assets to world GDP in 1913) to around 20% (Crafts, 2000; Obstfeld and Taylor, 2003a). However, a simple comparison of historical GDP reconstruction with the deflated figures indicates that the market value of the output of the four largest developing countries—Russia, India, Japan and China—was considerably lower than the deflation method yields.[8] Clearly, the historical GDP reconstructions are not free of errors, either. Yet, if we decide to trust the accuracy of the work of economic historians, the market value of the output of low-income countries in 1914 must have been considerably lower. Adjusting developing countries' GDP downwards, the ratio of foreign investment assets (or liabilities) to world GDP is likely to have been substantially higher than 20%—probably closer to 30%.

However, there can be no doubt that, measured by the Lane–Ferretti index, the overall degree of financial globalization is much higher today. Since the IMF's international investment position statistics do not yet cover a great many developing countries, the best way to derive the global volume of private cross-border investments in the years 2000 and 2001 is to sum international liabilities from different sources.

Table 1. International investment stocks in two eras of financial globalization in current US dollar billion

		Global investment stocks	World GDP	Stocks/world GDP
1913/1914	total	45	210	0.22
End-2001	total	23 335	31 100	0.75

Sources: For 1914 stocks Wilkins (1989), Twomey (2000) and Woodruff (1966); GDP from Maddison (1995, 2001) deflated by the implicit US-GDP deflator from Mitchell (1993) and Maddison (1995). For 2001 foreign direct investment stocks from UNCTAD (2004), bank loans from the Bank for International Settlements (2004), portfolio instruments from the Coordinated Portfolio Investment Survey of the International Monetary Fund (2003). GDP data from the World Bank (2004a).

This allows complementing industrial country investment position data by debt liabilities of developing countries from the World Bank (World Bank, 2004a,b), foreign direct investment data from UNCTAD (2004), equity investment from the IMF's portfolio investment survey (International Monetary Fund, 2003) and long-term loans of commercial banks from the Bank of International Settlements (Bank for International Settlements, 2004).[10]

According to these sources, global liabilities, i.e. inward investment stocks of portfolio debt and equity instruments, foreign direct investment as well as long-term bank loans, stood at about 23 300 billion dollars—or about 75% of world GDP at market prices in the year 2001. If short-term bank loans are added, this figure rises to 27 600 billion dollars or almost 90% of world GDP. In the years 2002–2004, international investments continued to grow faster than world output, so that this figure can be assumed to have been close to or even above the 100% threshold by end-2004. Relative to world output the degree of international financial integration is thus about 2–3 times higher today than in the first era of globalization (Table 1).

2. DISINTEGRATION OF DEVELOPING ECONOMIES FROM THE GLOBAL FINANCIAL MARKET

Looking more closely at the patterns of global investment before 1913 and after 1990, the first question we need to ask is which countries were the main recipients of international investment flows in both eras? Table 2 gives an answer. Given the size of the economy it is unsurprising that the US come out on top of the list in the two periods. More astonishing are the differences further down on the list. In 1914, 7 out of the 12 most important recipients of foreign capital were less-developed economies: Russia, Brazil, Mexico, India, South Africa, China and Spain. If one adds Argentina as a relatively wealthy but hardly industrialized country, 9 out of the top-12 destinations of international investment before 1914 can be counted as developing economies. In contrast, at year-end 2001 only one less-developed economy was among the 12 most important destinations for international investment flows: China comes out slightly ahead of small Switzerland. Western European economies do not appear at all on the historical list, but belong to the most important recipients of foreign investment today.

The list of the top-12 recipients seems to suggest that less-developed countries as a group account for a smaller share of global investments today. Yet, before we can calculate aggregate figures, we need to make sure that a consistent definition of 'developing countries' is applied in both periods. Two different classificatory approaches are plausible. First, we can classify an economy as less developed, if its GDP per capita is less than a third of the advanced core economies (roughly in the middle of each globalization period, i.e. in 1900 and 1995).[11] Second, we can look at the distribution of international investment by geographic world regions. Applying the (relative) income classification, what share of international investment was located in poor countries in 1913? According to historical statistics, out of a total of roughly 42 billion US dollars, countries with a per capita income of less than one-third of the core economies accounted for some

Table 2. Main recipients of foreign investment

US dollar billion	1913/1914	%	Cumulative		2001	%	Cumulative
USA	7.1	15.8	16	USA	6277	26.9	27
Russia	3.8	8.4	24	United Kingdom	2204	9.4	36
Canada	3.7	8.2	32	Germany	1866	8.0	44
Argentina	3.0	6.7	39	France	1431	6.1	50
Austria-Hungary	2.5	5.6	45	Netherlands	1027	4.4	55
Spain	2.5	5.6	50	Italy	943	4.0	59
Brazil	2.2	4.9	55	Japan	871	3.7	63
Mexico	2.0	4.4	60	Belgium/Luxemb.	741	3.2	66
India and Ceylon	2.0	4.4	64	Hong Kong	608	2.6	68
South Africa	1.7	3.8	68	Canada	597	2.6	71
Australia	1.7	3.8	72	China	534	2.3	73
China	1.6	3.6	75	Switzerland	521	2.2	76
				...			
				Brazil	443	1.9	
				India	130	0.6	

Note: The figures for end-2001 refer to international liabilities from direct and portfolio investments and long-term bank loans.
Sources: For 1913/1914 the source is Wilkins (1989). For 2001 the data for portfolio debt investments are taken from the International Financial Statistics of the International Monetary Fund (2004), foreign direct investment data come from the World Investment Directory of UNCTAD (2004), loans from commercial banks are taken from the Bank for International Settlements (2004). Debt data for Brazil, China and India were calculating using World Bank statistics: World Bank (2004a). Equity investments were derived from the Coordinated Portfolio Investment Survey of the International Monetary Fund (2003).

20 billion US dollars or approximately 48% of total international investment stocks in 1913 (using the data from Feis, 1965 [1930] and Woodruff, 1966). This figure is considerably higher than the one derived by Obstfeld and Taylor (2003a) who arrived at a low-income share of 29%.[12] However, the data for British capital flows that were published by Stone (1999) support a higher figure. Stone's data show that the share of developing countries in British foreign investment was 39%, only marginally lower than the 42% the older stock data show. Since the share of less-developed countries in the outward investment stocks of the other main capital exporters (such as France and Germany) was considerably higher, a figure between 40–50% looks more plausible.

A comparative look at the distribution of international investments at the end of the 20th century shows that the contrast between now and then is stark—regardless of minor quibbles over the accuracy of pre-WW1 investment statistics. At roughly 2900 billion US dollars, investment liabilities of countries with a GDP per capita of less than one-third of the high-income (OECD) countries accounted for only 12.5% of global investment stocks in the years 2000 and 2001 (Table 3). By historical standards, poor countries are marginalized in the contemporary global financial market.

The picture remains essentially the same, if we look at the distribution of international investment by geography. Unlike its historical predecessor, the current financial globalization is a process that takes place predominantly between developed economies. While the shares of North America, i.e. the US and Canada, and Asia (including Japan) have remained unchanged at 15% and 10%, respectively, the great disintegration from the global financial market place has taken place in three less-developed world regions: Latin America, Africa and Eastern Europe. Those regions accounted for two-fifths of foreign investment stocks before 1913, but for not even 10% today (Table 4). Western Europe has gained market share at their expense. Every second international dollar was invested in Western Europe in 2001, compared to not even 15% on the eve of WW1.

It is possible, however, that our focus on investment stocks hides different dynamics on the flow side as many countries liberalized their capital accounts progressively in 1990s. Do flow data contain a dynamic element that is missed by the stocks? The answer is relatively unambiguous: they do not. The

Table 3. Share of poor countries in international investment in current US dollar billion

	Of which in less developed economies	Share in %
1914		
United Kingdom	7.92	41
United States	1.48	42
France	6.10	69
Germany	2.74	47
Others	~2.0	47
Total	20.24	48
2001		
Foreign direct investment	1650	24
Bank loans (long-term)	444	13
Portfolio debt	308	6
Portfolio equity	520	6
Total	2922	12.5

Note and sources: Aggregation according to GDP per capita in 1900 and 1995 from Maddison (1995, 2001) and World Bank (2004a). Sources for contemporary data see text and Table 1.

Table 4. Geographical distribution of cross-border investment stocks % of total international liabilities

	1913/1914	2001	Change (%-points)
Western Europe*	13.3	50.4	37.1
Eastern and South-Eastern Europe**	13.9	1.6	−12.3
Africa	9.9	1.1	−8.8
Asia (non-Japan)	9.5	8.6	−0.9
Japan	2.0	3.3	1.3
Latin America*	20.3	5.1	−15.2
North America**	25.2	28.3	3.1
Australia and New Zealand	5.6	1.7	−3.9

*Excluding off-shore financial centers.
**Includes Turkey.
Sources: For 1913/1914 Feis (1965) and Woodruff (1966). For end-2001: UNCTAD (2004) for direct investment, BIS (2004) for long-term bank loans and International Monetary Fund (2003) for stock of portfolio investments.

share of poor countries in gross flows of foreign direct, debt and equity capital was on average 10% over 1990–2002. The highest share—confirming conventional wisdom about their greater developmental role—can be found for direct investments. Low-income countries received on average about 25% of global foreign direct investment flows over this period (Figure 1). Cross-border portfolio flows have boomed in the past decade and been a main driver of financial globalization, but the surge in 'passive' cross-border finance has not spilled-over to low-income regions. New issues of debt securities have quadrupled between 1994 and 2002, reaching more than a trillion USD per year (Bank for International Settlements, 2004). But the new issues of capital-poor countries have by and large stagnated, not in relative but in absolute terms.

3. A PORTFOLIO MODEL OF GLOBAL INVESTMENT STOCKS

In the first globalization almost every second pound of international investment found its way to low-income destinations. Today, only about every tenth internationally mobile dollar reaches poor countries.

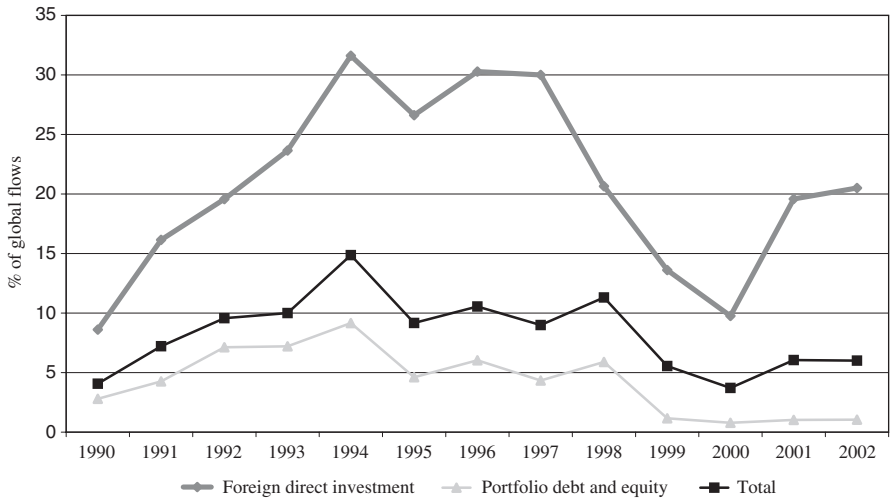

Figure 1 Share of poor countries in international investment flows 1990–2002 *Sources*: IMF (2004) and World Bank (2004a).

The 20th century has thus witnessed a relative disintegration of developing countries from the world capital market. Yet, could it be that these changes in the patterns of international investment may simply reflect a bigger share of advanced economies in world output?

Standard models of portfolio diversification suggest that the share of a country in international investment stocks should be roughly proportionate to its income (Obstfeld and Rogoff, 1996; Reinhart and Reinhart, 2003). A simple model of portfolio optimization could thus help to determine if investment patterns have only followed the changes in the relative size of economies. To test this, we construct an integration index (INT) that relates the share of a country in international investment to its share in world GDP. The index is defined as the share of a country's gross foreign liabilities (GFL) in total international liabilities, divided by its share in world GDP. The index is therefore independent of changes in the overall level of international financial integration:

$$INT_{i,t} = \frac{\mathrm{GFL}_{i,t}/\mathrm{GFL}_{w,t}}{\mathrm{GDP}_{i,t}/\mathrm{GDP}_{w,t}} \tag{2}$$

An index value of 1 signals that the country hosts the amount of foreign capital that corresponds to its share in world GDP. Table 5 shows that the patterns of global financial integration have changed markedly. In the contemporary world economy, developing economies are much less integrated than the simple portfolio model predicts. In other words, developing countries' share in global output is much higher than their share in international investment. Before 1914 quite the opposite was the case: developing countries were host to a larger part of international investment than of global GDP. In the course of the past century, developing and developed countries have changed their relative positions. The mutual investments between rich economies were comparatively low before 1914 (with the partial exception of the US), whereas their financial ties to the periphery were close. International capital flows were predominantly rich–poor in direction, just like standard textbooks would suggest. Today's globalization can instead be characterized as a 'rich–rich affair' (Obstfeld and Taylor, 2003a, p.174), dominated by massive diversification flows between rich economies and low rich–poor flows. It is true that international financial integration has risen on a global level (from 20–30% of world GDP in 1914 to roughly 100% today), but this increase is almost exclusively due to much closer financial ties between developed economies.

Have foreign capital-to-output ratios decreased in poor countries? The data are sketchy, for the simple reason that historical GDP estimates for developing countries are rare and not very reliable. But for some important less-developed economies, such figures can be calculated. To illustrate the margin of error that

Table 5. International financial integration index

	1913			2000		
	Share of international investment stocks (%)	Share of world GDP (%)	Integration index	Share of international investment stocks (%)	Share of world GDP (%)	Integration index
Argentina	6.26	1.07	5.84	0.83	0.94	0.88
Brazil	5.64	0.73	7.69	1.75	2.68	0.65
Chile	0.91	0.34	2.66	0.31	0.45	0.69
Mexico	4.56	0.81	5.61	1.10	1.72	0.64
Russia	8.20	8.59	0.95	0.71	3.73	0.19
Turkey	3.14	0.47	6.68	0.49	0.97	0.51
China	2.76	11.13	0.25	1.89	22.76	0.08
India	4.85	7.55	0.64	0.49	5.38	0.09
Egypt	1.89	0.23	8.28	0.19	0.46	0.41
South Africa	5.00	0.36	13.71	0.30	0.50	0.61
Average			*5.23*			*0.48*
Japan	1.96	2.65	0.74	6.74	7.49	0.90
France	0.92	5.29	0.17	6.89	3.44	2.00
Germany	0.90	5.36	0.17	9.42	3.97	2.37
United Kingdom	1.84	7.91	0.23	16.69	3.34	5.00
United States	14.72	19.16	0.77	27.63	21.38	1.29
Average (excl. Japan)			*0.34*			*2.67*

Sources: Own calculations based on GDP figures from Maddison (1995, 2001) in 1990 international dollars (PPP), and gross foreign investment data from Woodruff (1966) and Wilkins (1989). For 1913/1914. For 2000, the total gross inward investment stock is the sum of external debt, portfolio equity and foreign direct investment from World Bank (2004a), International Monetary Fund (2003) and UNCTAD (2004). For the G-5 the corresponding data refer to total inward stocks of portfolio debt, equity and other investment from International Monetary Fund (2004), and UNCTAD (2004). GDP in constant 1990 international dollars from Maddison (1995, 2001) and World Bank (2004a).

needs to be accepted when compiling such statistics, we present two series from different sources (Table 6). But a clear trend emerges: in most less-developed countries the ratio of foreign capital to output was higher on the eve of WW1 than it was in the year 2000. The secular decline is most obvious in South America and in former British colonies such as India, South Africa and Malaysia. An (modest) increase can be observed in a number of Asian countries. Comparing the simple arithmetic average in 1913 (about 100% of GDP) and 2000 (about 60% of GDP), one can conclude that in the first globalization developing countries were more strongly penetrated by foreign capital than the world economy as a whole, whereas today poor countries have fallen far behind the degree of international financial integration reached on the global level.

4. THE 'LUCAS PARADOX' IN HISTORICAL PERSPECTIVE

An interesting perspective on the patterns of international investment is offered by the so-called Lucas paradox of neoclassical growth theory. In his seminal paper, Lucas (1990) has pointed to the paradox that investment flows to poor countries fall far short of what standard neoclassical growth models predict. If remotely correct, such models would imply astronomical returns to capital in poor regions, which should lead to massive capital inflows as soon as formal barriers are dismantled. Yet, in reality, quite the contrary seems to be the case. Low income levels are correlated with low investment inflows (Lane and Ferretti, 2001): the lower the initial income, the less likely a country is to profit from the opportunities offered by global financial integration (Clemens, 2002). It is beyond the scope of this paper to give an explanation for

Table 6. Foreign capital stocks of individual countries in % of GDP

	1913a	1913b	2000
India*	27	35	13
Russia	33		34
Egypt	134	105	26
South Africa	123	235	57
Brazil	111	92	66
Chile	67	197	127
Argentina	129	248	62
Uruguay	172		75
Mexico		126	42
China		24	41
Turkey		98	34
Indonesia		51	77
Malaysia		148	105
Philippines		53	53
South Korea		14	31
Thailand		40	59
Average	100	105	57

*Includes Ceylon for 1913 stocks.

Note: The first column for the year 1913 was calculated based on the figures from Woodruff (1966) and historical GDP data figures from Mitchell (1992, 1993, 1995), Gregory (1982) and Obstfeld and Taylor (2003a). Column 1913b is based on Twomey (2000). The discrepancies are sometimes large, caused mainly by different GDP estimates. The year-end 2000 figures refer to total stocks of foreign direct, portfolio debt and equity investments as well as long-term commercial bank loans. Portfolio equity stocks were calculated as the sum of inflows since 1980. All data, including GDP at current US dollars come from the World Bank (2004a), except for foreign direct investment stocks from UNCTAD (2004).

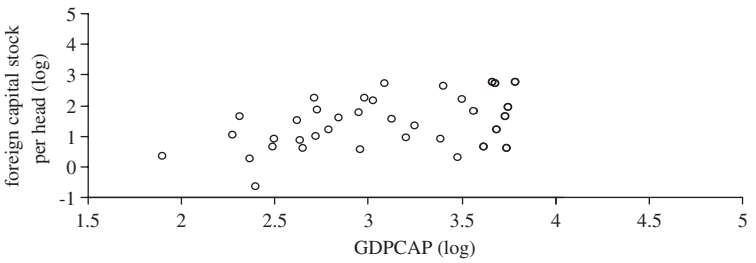

Figure 2 Cumulative capital inflows and initial GDP per capita (1890–1914) *Sources*: See text.

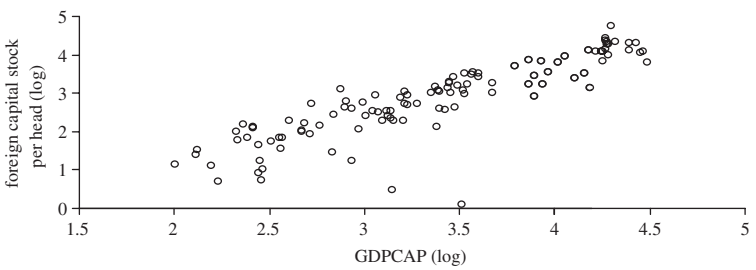

Figure 3 Cumulative capital inflows and initial GDP per capita (1990–2000) *Sources*: See text.

Table 7. Capital flows and income level ('wealth bias')

Regression	1	2	3	4	5	6	7
Period	1890/1913	1990–2000	1990–2000	1890–1913	1990–2000	1890–1913	1990–2000
Dependent variable	Inflows per head (log)	Inflows per head (log)	Inflows per head (log) *excl. FDI*	Inflows to GDP	Inflows to GDP	Inflows to GDP	Inflows to GDP
Initial GDP per capita (log)	1.34	1.95	2.70	0.78	1.51	0.93	7.92
	(2.76***)	(17.74***)	(18.25***)	(0.98)	(4.97***)	(1.29)	(4.62***)
GDP						−0.005	−0.001
						(3.03***)	(−1.57)
Constant	−3.48	−5.32	−8.74	−1.41	−23.58	−1.62	−24.82
	(2.29**)	(12.73***)	(15.07***)	(0.57)	(4.68***)	(0.72)	(4.39***)
N	36	111	91	36	112	36	112
R^2	0.15	0.71	0.66	0.02	0.18	0.10	0.18

Note: Least squares estimation, White heteroskedasticity corrected standard errors; *** denotes statistical significance at 1% level, **denotes significance at 5% level. *t*-statistics in brackets.
Sources: Historical flow data from Stone (1999) and Clemens and Williamson (2004), GDP from Maddison (1995, 2001). Modern data from International Monetary Fund (2004), population and GDP from World Bank (2004a). See text.

the wealth bias of international investors. Alternatively, what we can do is to look at the phenomenon in a comparative historical perspective. Has the 'wealth bias' existed before? Has it been less pronounced in the first financial globalization?

Figures 2 and 3 display the relationship between GDP per capita and capital inflows per inhabitant for the years 1890–1914 and 1990–2001 (all figures in logs and transformed to constant 1990 dollars). The visual inspection of the correlation between investment inflows and income level clearly shows that the patterns differ. Inflows and wealth levels are more strongly correlated today.

To explore the elasticity in greater detail, we run a cross-sectional regression to estimate the relationship between the initial income level and capital inflows. Such a direct comparison of two distant epochs on the basis of scarce data is difficult, but could nonetheless be illuminating. In our first estimation, capital inflows per head are regressed on income, measured in GDP per capita at the beginning of each globalization period, and a constant (Table 7).[13] Regressions (1) and (2) show that in both eras of global capital market integration higher initial GDP per capita was statistically associated with higher capital inflows—thus, whatever the causes of wealth bias, it was present a hundred years ago. Rich countries in both eras attracted relatively more capital.

Yet, there is a striking difference with regard to the overall variance of flows per capita that can be 'explained' by GDP per capita: only 15% of the variation of capital inflows per head can be attributed to the wealth level in the age of the classical gold standard. The relationship is much stronger today as about 70% of the variation is accounted for. Initial wealth fares far better in explaining the ability of countries to attract foreign capital in the current globalization era. Moreover, if we limit the comparison to portfolio investment—excluding foreign direct investment flows—the elasticity of the coefficient on GDP per capita turns out to be about twice as high today (3 and 4). We obtain essentially the same result if we scale average annual capital inflows by the recipient country's GDP (5 and 6), or add GDP as a regressor to account for the effects of market size (7 and 8).

On a first glance, these findings contradict Clemens and Williamson (2004) who found that the 'wealth bias' of international investment was even stronger in the first capital market boom. However, their finding has been questioned by other authors (Obstfeld and Taylor, 2004, p. 245), because the alleged high elasticity seems to be mainly driven by some influential outliers in the sub-periods chosen by Clemens and Williamson, 1908–1913 vs 1992–1997. Moreover, Clemens and Williamson did not normalize the dependent variable, but chose to regress gross capital flows on the income level and market size.

5. NET CAPITAL FLOWS TO POOR COUNTRIES

From the perspective of development economics the main rationale for international capital mobility is the possibility of net capital flows to poor countries. By opening up to the global capital market, developing economies could invest more than they save, and hence free themselves from a binding constraint on economic development. For an increase in the investment ratio, capital must flow to developing countries on a net basis. It is thus important to ask how sizeable net capital flows from rich to poor countries were in both eras.

However, net capital flows are difficult to measure. Detailed data on capital inflows to and outflows from less-developed countries (often somewhat misleadingly labelled 'capital flight') are not available for the first globalization era. This leaves us with an indirect method to estimate net capital movements using the current account balances of the developed economies (adjusted for reserve changes): by definition, the adjusted current account balance equals net capital flows to or from an economy. If we treat the world economy as consisting of a poor and a rich part and add up the current account balances of countries of one part, we obtain an estimate of net capital flows to the other part. The method is rough, but enables us to obtain estimates that would otherwise be unobtainable because of data constraints. We can also apply this method to net international investment positions, i.e. to investment stocks at a given point in time: aggregating the investment position of the developed economies vis-à-vis the rest of the world, i.e. less-developed countries, returns the net debtor position of poor countries. To classify countries as rich or poor, we use the (relative) income as described above, but a geographical classification again yields similar findings.

The behaviour of the aggregate current account balance of the developed economies supports the idea of massive net capital transfers from rich to poor in the first globalization. Between 1880 and 1913, the developed countries in the sample exported on average capital of about 1–1.5% of their GDP per year (Table 8). Although some of the advanced economies such as Australia, Canada and the US were capital importers for most of the time, the sizeable surpluses of the other developed economies kept the high-income aggregate well in positive territory, leading to substantial net capital outflows to the rest of the world, i.e. to less-developed economies (Table 8).

Turning to the contemporary period, the picture is again markedly different. Given the discrepancies in contemporary world balance of payments statistics, the volume of net capital flows from rich to poor depends on the calculation method. Aggregating the current account balances of the advanced economies shows that they were net capital *importers* between 1992 and 2002 (by about 0.2% of their GDP). However,

Table 8. Net capital exports* of high-income countries 1890–1914 vs 1990–2001 period average, % of GDP

	1890–1914		1990–2001	
			I	II
1890–1894	0.8	1990–1995	−0.4	0.6
1895–1899	1.4	1996–2001	−0.4	0.4
1900–1904	1.2			
1905–1909	1.4			
1910–1913	1.1			
1890–1913	1.2	1990–2001	−0.4	0.5

*Net capital exports equal current account balance less increase in reserve stock. Data in the historical sample cover the United Kingdom, the US, Germany, France, Canada, Australia, Denmark, Norway, Italy, Switzerland, Sweden and Argentina. Discrepancy in the modern sample between columns I and II due to errors in world BoP statistics. Modern data refer to the aggregate of 33 high-income countries with a GDP per capita of more than 8000 international dollars in 1995 (see text).

I = calculated using current account data of high-income countries from IFS.

II = calculated using current account data of low-income countries from IFS.

Sources: Jones and Obstfeld (1997), Mitchell (1992, 1993, 1995), International Monetary Fund (2004) and World Bank (2004a) for GDP data.

Table 9. Net international investment positions 1914 vs 2000 % of GDP

	1914		2000	
	Net foreign assets	Gross foreign assets	Gross foreign liabilities	Net foreign assets
USA	−9	75	91	−16
United Kingdom	153	315	318	−3
Germany	36	139	135	3
France	97	188	182	6
Switzerland	139	567	440	127
Netherlands	na	312	328	−16
Italy	na	104	100	4
Canada	−135	79	99	−20
Total	20	92	93	−1

Sources: Historical data from Goldsmith (1985), Woodruff (1966), Twomey (2000), GDP from Mitchell (1992, 1995). Modern data from the international investment positions from International Monetary Fund (2004); GDP from World Bank (2004a).

if one aggregates the current account balances of developing countries, net capital flows from rich to poor seem to become positive, but they were much smaller than in the first era (only 0.2% of the advanced countries' GDP). Even by this generous measure—it is unlikely that all the statistical error is on one side—advanced countries' net capital flows were thus about 2–3 times lower than in the first capital market boom when the developed nations exported more than 1% of their GDP per year to poor countries. Data restrictions prevent us from relating capital imports to developing country GDP for the decades before WW1. Yet, according to Maddison's data, the contribution of less-developed countries to world GDP has remained relatively stable over the past century (at roughly 40% of world GDP). This would imply that also in relation to poor country GDP, net capital flows are much smaller today.

With regard to net international investment positions, historical statistics are unfortunately fragmentary with regard to the international liabilities of rich countries in 1913. However, one can follow Bloomfield (1963) as well as Obstfeld and Taylor (2003a) by arguing that the unaccounted (mainly short-term) liabilities of the main European creditor nations in 1913/1914 were rather small compared to their massive long-term assets. As a consequence, it would be permissible to assume that aggregate net foreign assets of the rich economies were rather close to their gross foreign assets in developing countries (Obstfeld and Taylor, 2003a). Leaving some margin for foreign holdings of European bills, 18–19 billion US dollars are a realistic range for the net international creditor position of the rich in 1913. This would correspond to 15–20% of their aggregate GDP in this year (Table 9).

On contrast, by year end-2000 the aggregate international investment position of the high-income countries displays a net debtor position of 660 billion US dollars or 2.5% of their GDP. The largest international debtor in nominal terms is the United States, but this is arguably a special case. Excluding the US (i.e. effectively including their net foreign assets in the less-developed country aggregate) the high-income countries become international creditors again, but by a much smaller share of their GDP than in the first globalization. Their net claims on the rest of the world equaled only about 6% of their GDP compared to 15–20% before 1914. In other words, even when the US is treated as a special case, the differences between now and then remain stark. Only Switzerland disposes of net foreign assets comparable to those it had in 1913 (127% of GDP). Table 9 shows that gross foreign asset and liability positions of the rich countries are large, but they cancel each other out. The countries with the highest assets are also those with the highest liabilities, resulting in almost flat net positions. Unlike in the first globalization, era rich countries did not build up large one-way positions in the past years:

'Today's asset distribution is much more about asset 'swapping' by rich countries—diversification—than it is about the accumulation of large one-way positions—a critical component of the development process in poorer countries in standard textbook treatments' (Obstfeld and Taylor, 2003a, p. 174).

In sum, net capital flows from rich to poor are small today and net international investment positions are by and large flat. In the past decade financial liberalization has not led to a massive transfer of capital from rich to poor. In contrast, before WW1 poor countries borrowed substantial amounts from the more-developed countries—on a net basis. Financial globalization in the 1990s seems to have facilitated the diversification of assets and liabilities, but it has failed to offer new net sources of financing to poor economies (Aizenman *et al.*, 2004).

6. CONCLUSIONS

The preceding lines had to be read with the Schumpeterian dictum in mind that the value of statistics is not only to explain, but also to find out what needs to be explained. The comparison of the patterns of international investment in two eras of financial globalization has yielded more differences than similarities. In both periods, capital was highly mobile and little formal barriers impeded its global allocation. Yet, the overall patterns of global investment differed markedly. Several conclusions can be drawn.

First, a secular increase in international financial integration has taken place in the course of the 20th century. Relative to world output, cross-border investments are considerably larger today than ever before. Yet, this increase has not been transmitted to developing countries. A long-term historical perspective on global investment patterns shows a relative disintegration of developing economies. So far, only mutual investments between rich countries have increased dramatically, rich–poor capital flows remain far below historical levels. In 1913, British investors had placed less of their foreign investments in France and Germany combined than in a country like Uruguay. Today, British investments in France are larger than all British emerging markets investments together.

Second, already a hundred years ago, investors found it more attractive to invest in rich economies than in poor countries. Nonetheless, different forces seem to be at work in both eras: back then, the wealth level of an economy was a much weaker predictor for the amount of capital inflows than today.

Third, global financial liberalization in the 1990s has not triggered large-scale net capital transfers from rich to poor. Current account balances have remained more or less flat. If we decide to trust the historical investment and balance of payments data, the core advanced nations had built up enormous one-way positions in their investment books before WW1. This could be one key reason why recent research has found evidence of a positive impact of international financial integration on economic growth before 1914 (Schularick and Steger, 2006). Such large bets on the development of the poorer half of the world are absent from rich countries' investment books today.

Financial globalization is back, but with a very different face. The patterns of international investment in both 'globalizations' suggest that—looking at the hopes that were associated with the integration of poor countries into the global capital market—the glass is half-empty rather than half-full. The historical lesson that emerges from the comparison is that financial globalization can be and has been a benign force for development. However, the contemporary world economy has a long way to go to capture the potential benefits of international financial integration. These findings call for a better understanding of the circumstances under which large-scale development finance became possible in the first era of financial globalization. Financial history might have more important lessons to teach.

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APPENDIX A: COUNTRY SAMPLES

1900		1995			
Developed	Less-developed $N = 49$	Developed	Less-developed $N = 138$		
Argentina	Brazil	Australia	Albania	Gambia	Nicaragua
Australia	Bulgaria	Austria	Algeria	Georgia	Niger
Austria	Burma	Belgium	Angola	Ghana	Nigeria
Belgium	Ceylon	Canada	Argentina	Guatemala	Pakistan
Canada	China	Czech R.	Armenia	Guinea	Panama
Chile	Colombia	Denmark	Azerbaijan	G-Bissau	Papua Guinea
Denmark	Cuba	Finland	Bangladesh	Haiti	Paraguay
Finland	Egypt	France	Belarus	Honduras	Peru
France	Ghana	Germany	Benin	India	Philippines
Germany	India	Greece	Bolivia	Indonesia	Poland
Greece	Indonesia	Hong Kong	Botswana	Iran	Romania
Italy	Japan	Hungary	Brazil	Jamaica	Russia
Netherlands	Korea	Ireland	Bulgaria	Jordan	Rwanda
NewZealand	Malaysia	Israel	Burkina Faso	Kazakhstan	Senegal
Norway	Mexico	Italy	Burundi	Kenya	Sierra Leone
Spain	Morocco	Japan	Cambodia	Kyrgyz	South Africa
Sweden	Peru	Korea	Cameroon	Lao PDR	Sri Lanka
Switzerland	Philippines	Kuwait	Central Africa	Latvia	Sudan
UK	Portugal	Netherlands	Chad	Lebanon	Syria
US	Rhodesia	NewZealand	Chile	Lesotho	Tajikistan
Uruguay	Russia	Norway	China	Lithuania	Tanzania
	Serbia	Portugal	Colombia	Macedonia	Thailand
	Singapore	S. Arabia	DR Congo	Madagascar	Togo
	South Africa	Singapore	Congo, Rep.	Malawi	Trinidad
	Thailand	Slovakia	Costa Rica	Malaysia	Tunisia
	Turkey	Slovenia	Cote d'Ivoire	Mali	Turkey
	Venezuela	Spain	Croatia	Mauritania	Turkmenistan
	Vietnam	Sweden	Dominican R.	Mauritius	Uganda
		Switzerland	Ecuador	Mexico	Ukraine
		UAE	Egypt	Moldova	Uzbekistan
		UK	El Salvador	Mongolia	Venezuela
		US	Eritrea	Morocco	Vietnam
		Uruguay	Estonia	Mozambique	Yemen
			Ethiopia	Namibia	Zambia
			Gabon	Nepal	Zimbabwe

Note: Classification based on GDP per capita in 1900/1995; see text.

NOTES

1. Throughout this paper we will use 'international financial integration' and 'financial globalization' interchangeably. Both are aggregate concepts referring to increasing integration of individual countries with international markets (Prasad *et al*., 2003).
2. Globalization in historical perspective' is also the title of the most comprehensive collection of studies on the topic published by the National Bureau of Economic Research in 2003 (Bordo *et al*., 2003).
3. This could also be one reason why recent research has found growth effects from international financial integration before 1914, but not for the period 1980–1914. See Schularick and Steger (2006).
4. In principle, both gross international assets and international liabilities can be looked as they should be equal on a global level.
5. These data are the subject of a long-standing debate among economic historians (Platt, 1986; Feinstein, 1990). Yet, the original estimates by Paish (1911) and Feis (1965 [1930]) remain widely accepted.

6. Information on short-term positions is much less complete. On the basis of very rough estimates, one may add about three billion dollars in short-term assets (Bloomfield, 1963), raising global foreign assets in the world economy to 45–50 billion US dollars in 1913.
7. A figure of 5.5 billion dollars can be found in United Nations (United Nations, 1949), but looks very high. If true, these countries would have had higher foreign investments relative to output than the UK. Twomey (2000, p. 32), prefers an older figure of 4.3 billion in current 1913 prices. This lower number was used here. It must be noted that these figures refer only to private long-term portfolio and direct investment.
8. Among others this was done in Obstfeld and Taylor (2003a); Taylor (2002); Clemens and Williamson (2004).
9. Own calculations based on Maddison's figures (Maddison, 1995) deflated by the implicit US-GDP-deflator from Maddison (1995) and Mitchell (1993) as well as the historical GDP reconstructions from Chang (1962) for China, Gregory (1982) for Russia, Bordo and Jonung (1996) for Japan and Obstfeld and Taylor (2003a,b) for Brazil and India.
10. UNCTAD (2004) values foreign direct investment at historical cost (as do historical statistics). The figure would be about 20–30% higher if foreign direct investment would be valued at market price.
11. The threshold of one-third of the rich core is chosen in approximation of current World Bank practice: the Bank's upper limit for the classification as a 'developing country' comes very close to a GDP per capita of one-third of the high-income OECD countries. For the pre-WW1 area, the reference countries are the UK, France, Germany and the US. For the contemporary period it is the high-income OECD country aggregate according to the World Bank. Our historical sample covers 49 countries, 28 of which were treated as less developed, because of a per capita income of less than 1300 international dollars in 1900. The modern sample covers 138 countries, 105 of which had a per capita income below the threshold of 8000 international dollars. The full list of countries can be found in the Appendix.
12. Unfortunately, it is not clear how this figure was derived. The data are taken from 'unpublished worksheets' of Prof. Twomey, University of Michigan at Dearborn. Prof. Twomey confirmed in mail correspondence that a total amount of 20 billion dollars is more realistic.
13. This is to avoid endogeneity problems. GDP per capita series for some of the countries in the historical sample start later than 1890. In such cases, the earliest available date was chosen, typically 1900.

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