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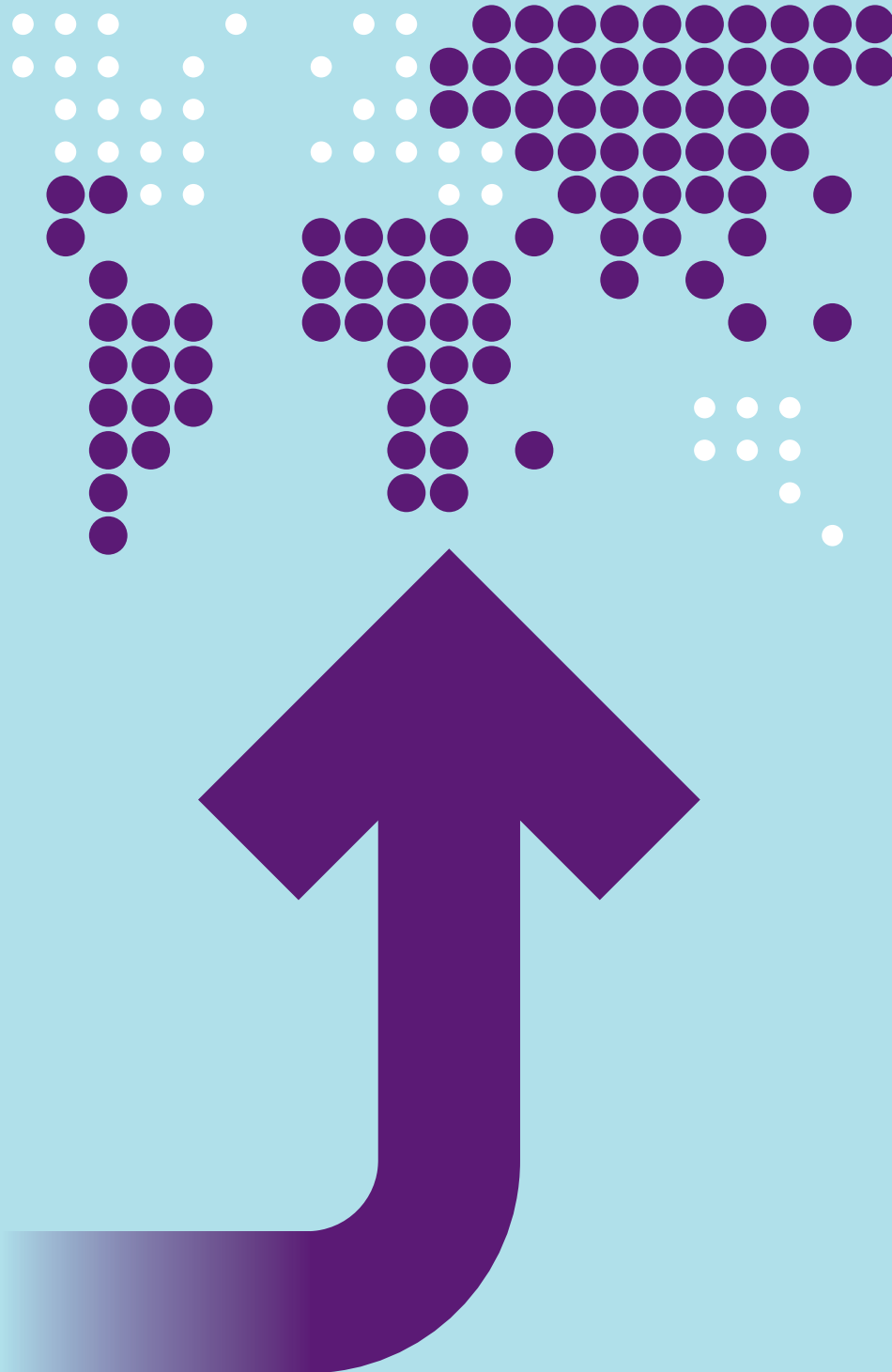
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Financial Wealth—
An Esitmate
of the Buildup
and Destruction
of Wealth:
2002–12

Claudio M. Loser
and Drew Arnold



**Emerging
Markets
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Financial Wealth— An Estimate of the Buildup and Destruction of Wealth: 2002–12

Claudio M. Loser and Drew Arnold

Financial Wealth over the last decade became the clearest sign of economic advancement and well-being. The collapse of financial markets that occurred in 2008 was a cataclysmic event. Conditions under which financial markets had operated for many decades are unlikely to be replicated in the next few years. The enormous generation of wealth witnessed in previous years may come back, but in the context of a much more controlled financial system, and subject to stricter rules. Even though a recovery has already taken place, it has been at best modest, and with relapses, as was witnessed in 2010 and 2011. Furthermore, the road ahead is difficult. The loss of financial wealth that started in 2008 has been enormous, and the consequences for the economies of the world are commensurate. The loss of capital value of financial assets world-wide reached the equivalent of about one year of world GDP in 2008. The discussion below provides an estimation of the changes in financial wealth since 2002, and the possible causes for the changes. The study is based on a more detailed study prepared in 2010 and updated through 2011.¹

The discussion below is based on a distinction between market related changes and other movements. For the purpose of this discussion, market related movements are those reflecting

changes in share prices, changes in local interest rates on account of the base interest rates and country-specific spreads, and movements in exchange rates. Other changes include those generated by credit expansion by the monetary authorities, deficits of the public sector, plus the changes on account of increased additional loans to the private sector, and the accumulation of international reserves. These, in turn, are likely to reflect the savings efforts by the private sector.²

Available data shows that the value of financial assets more than doubled between 2002 and 2007 (125 percent), at a time that GDP grew by 70 percent, entailing an increase in the ratio of financial assets to GDP of 330%, to 440% by end-2007 (Table 1). During the period under review, the ratio of financial assets to GDP in Advanced Economies rose by 35 percent. In Developing Asia, the ratio rose by 60 percent, and in Latin America it was an impressive 75 percent.

The pace of financial asset accumulation came to an abrupt halt in 2008, when the ratio to GDP declined by 18%, in response to the crisis, and 10% in nominal terms, notwithstanding the massive injection of liquidity by central banks and governments alike. When only market related changes are included, the loss of financial wealth at a world-wide level may have amounted to an astounding US\$46 trillion in 2008, (Figure 1) with a likely additional loss of US\$ 10 trillion before a trough was reached in early 2009, as discussed below. Moreover, while assets have increased since then and have reached the levels observed before the crisis, the increases due to changes in market conditions in the subsequent three years, and most likely in the first half of

Note: Claudio Loser is President of Centennial Group Latin America. Drew Arnold, Senior Economic Analyst at Centennial International. They want to express their thanks to the co-workers at Centennial Group and at the Emerging Market Forum. Of course, the content of this note and all errors in it are the full responsibility of the authors. For a detailed discussion of the losses through 2009 see Claudio Loser and Drew Arnold, "Financial Wealth: Sustained but high Gains and a Collapse for the Ages An estimates of Cycles of Buildup and Destruction of Wealth 2002–09, Global Journal of Emerging Market Economies, Vol 2 Issue 1, January 2010.

¹ The statistical basis for this paper are the calculations presented in the Global Financial Stability Report, of the International Monetary Fund, for the period 2002–09, with additional estimates specifically prepared for this paper through 2011. These do not include the complex set of financial derivatives like CDS (Credit Default Swaps) that further multiplied the size of the financial market.

² The estimates do not seek to separate the effect on interest rates and exchange rates because of changed risks and those resulting from the changed stance of monetary and fiscal policy, and in this regard may result in an overestimate of the market changes.



Table 1
1 **Total Financial Assets (in percent GDP)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010
World	330.8	342.3	369.2	341.5	401.5	439.6	358.6	418.3	407.3
EU	418.4	405.4	457.8	433.6	541.7	580.7	488.5	580.8	570.5
United States	344.6	373	401.6	402.9	430.6	445	373.6	431.2	440.6
Japan	381.9	454.2	467.2	450.5	459.4	546.6	467.8	523.7	536.1
Emerging Asia	242.2	232.9	251.3	246.8	306.6	389	331.6	274.1	274.7
Emerging Latin America	105.2	129.1	144.1	148.5	155.1	182.3	141.6	183.7	179.6
Emerging Africa, Middle East, Europe	83.7	85.1	99.1	86	142.8	176.3	118.1	106.7	127.4

Source: IMF, Global Financial Stability Report, various issues, Centennial database, and own estimates

2012, have not been able to compensate the losses incurred during the Great Recession. Thus, to a significant extent the observed increases in financial assets were the result of a massive increase in the public sector deficits and an injection of liquidity by central banks, counteracting a process of deleveraging and increased savings by the private sector, after years of unsustainable borrowing and massive over-expansion in financial wealth.

The exact implications for aggregate demand, including for investment, have not been quantified but clearly explain the decline in GDP in 2009 and the modest pace of the recovery that the world has experienced subsequently. The rebuilding of private savings, the concerns of the private sector about the pace of the recovery, and the fears resulting from the increase in central bank liquidity and government debt have had a major effect on aggregate demand, only offset in part by the direct effect of government expenditure and the direct effect of central bank

credit expansion. On that basis, the recovery from the current traumatic events can be expected to take considerable time and cannot be expected to lead to the previous rapid but unsustainable path of growth, particularly experienced over the period 2003–07.

Figure 2 provides data on the main sources of explained market changes (stock market valuation changes; exchange rate movements; changes in spreads; and movements in nonperforming loans) during the period under study. Clearly, during the period, the main source of change was the stock market, with more limited changes in the area of debt and bank assets. Only in 2003, at a time when financial markets were recovering, and in 2008, when financial markets collapsed, were other items affected in a significant way. What is noticeable, however is that the sharp decline in bank assets observed in 2008 and 2009, was not reversed,

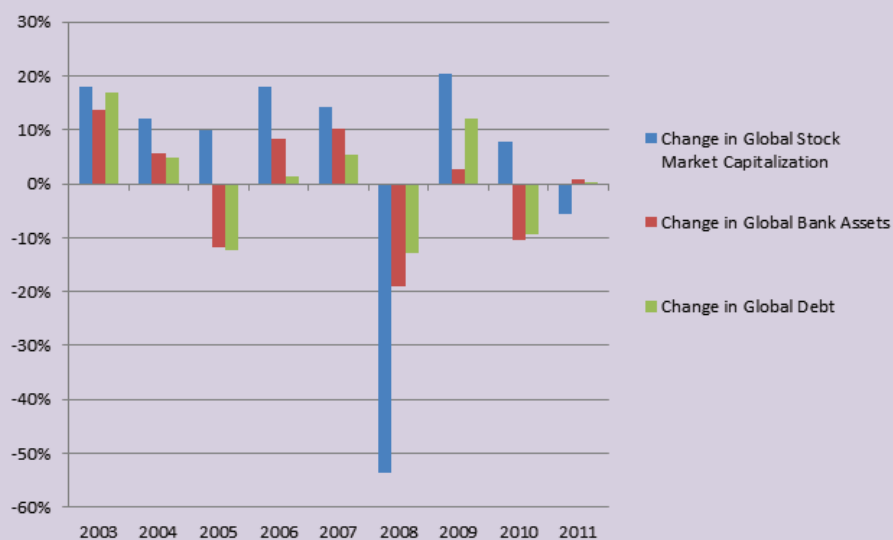


Figure 1 **Global Gains/Losses of Total Assets as % of GDP**



Source: IMF, Global Financial Stability Report, various issues, Centennial database, and own estimates

Figure 2 **Market-determined Explanations of Global Assets Losses 2003-2011 (% of GDP)**



Source: IMF, Global Financial Stability Report, various issues, Centennial database, and own estimates



particularly reflecting the difficulties in Europe, and to a lesser extent in the US and Japan.

The impact of the current crisis has been overwhelming in terms of the geographic coverage. All regions of the world suffered the consequences of the crisis, proving again that the decoupling theory that had been prevalent during earlier years was misplaced. Figure 3 shows the magnitude of the fall in 2008, with particularly large declines in the case of Developing Asia, Latin America, and the European Union. This is explained by a combination of the impact of the crisis on the stock market, the large financial system, and the effect of a depreciation of the currencies. In the case of Asia, it is mostly explained by the stock market and the losses in the banking system, while in Latin America, the losses occurred mainly in the stock market.

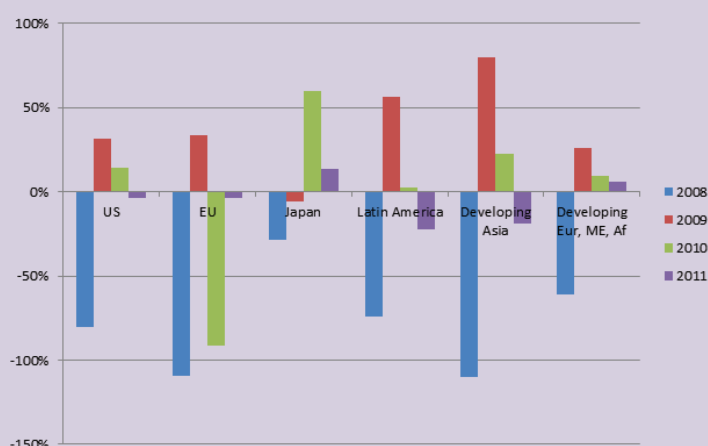
The dramatic nature of the collapse is described by the quarterly performance of financial wealth, as shown in Figure 4. Notwithstanding the large

governmental packages that were offered starting in 2008, the financial losses continued unabated until early 2009, when commodity prices bottomed, and coordination among the main economies of the world, embodied in the G-20, started to be implemented. Among the various regions of the world, the one showing the lowest decline and best rebound relative to the end of 2006 was Latin America, helped by reasonable macro-policies after decades of mismanagement. Developing Asia, reflecting the strength of China and India and the appreciation of national currencies vis-à-vis the US dollar, also recovered but remained further away from its maximum.

The recovery from the 2008 shock in the subsequent three years has been significant, but very uneven among regions. In particular, the European Union has experienced a continued loss of its financial wealth, except for the initial recovery in 2009. This is explained by a lack of coordinated fiscal and monetary policies, which had not been

Figure 3

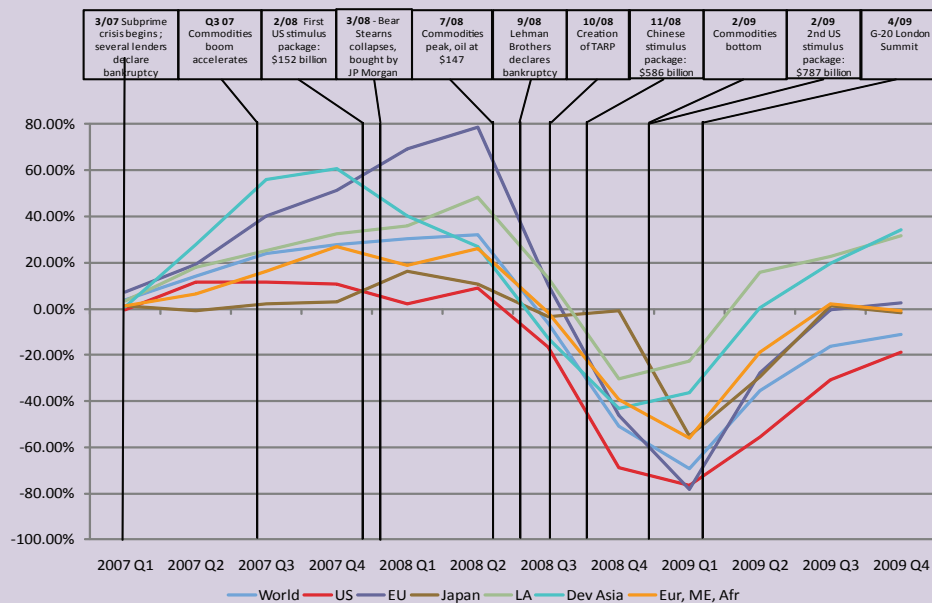
Market-determined Asset gains/losses by region 2008-2011



Source: IMF, Global Financial Stability Report, various issues, Centennial database, and own estimates



Figure 4 **Asset Losses by Region (quarterly as % of GDP)**



Source: IMF, Global Financial Stability Report, various issues, Centennial database, and own estimates

seriously addressed until 2012. The US has recovered in part, but still had not reached the previous levels of financial wealth. The weak recovery in the level of assets due to market conditions was offset in part by government action. However, the process of deleveraging by the private sector and the concerns about mounting liquidity and government debt has reduced further the pace of the recovery. While the emerging economies have seen a much stronger recovery in assets this has not been sufficient to offset the drag in the advanced economies, and particularly in Europe.

The impact of a decline in stock market values and the subsequent slow recovery are having a direct effect on the performance of economies world-wide. Different estimates show wealth-elasticities of consumption to financial wealth in

the order of up to .05, and of .06 in the case of housing equity for increases in wealth. However, the association seems to be stronger in the case of declines in wealth. On that basis, a decline in financial wealth in the order of 20% could have an impact on consumption of 2%. In addition, the effect on investment is significant on account of the perceived reduced prospects for growth in the near future because of significant existing excess capacity and the need to deleverage. Thus, the decline in activity in 2009 and the slow subsequent recovery are consistent with the loss of wealth described here. This has taken place notwithstanding the significant efforts among major countries to reactivate their economies, which in practice came to a halt in 2010, particularly on account of the serious difficulties confronted by the European financial system,



Table 2
Net Investment Positions

	2002	2007	2008	2009	2010
Advanced economies					
Net asset position (US\$ billions)	-1115	-1176	-1876	-547	300
as % of total assets	-1.2%	-0.6%	-1.0%	-0.3%	0.1%
Total international assets	33857	90053	86916	88929	94672
as % of total assets	35.9%	46.4%	48.5%	43.3%	44.5%
Developing Asia					
Net asset position (US\$ billions)	-304	784	1160	1100	1150
as % of total assets	-3.6%	2.6%	4.8%	5.1%	4.4%
Total international assets	307	3342	3866	4530	5372
as % of total assets	-33.8%	-14.0%	-10.9%	-13.2%	-12.2%
Latin America					
Net asset position (US\$ billions)	-584	-927	-650	-965	-1075
as % of total assets	-3.6%	-14.0%	-10.9%	-13.2%	-12.2%
Total international assets	593	1399	1513	1688	1973
as % of total assets	34.4%	21.1%	25.4%	23.0%	22.4%

Source: IMF, International Financial Statistics and own estimates

because of lack of clear and unified action by the various governments in the European Union, and particularly within the Euro area. Looking forward, the path for recovery is likely but far from easy.

Cross border flows and the impact of the crisis

With significant levels of assets abroad, either in the form of investments by companies or in the hands of individuals that have taken money out in response to poor domestic policies, the international crisis has an additional impact on Emerging Economies due to the reductions in returns on those investments abroad, and financing difficulties in connection with these investments. This problem did not exist when the main Emerging Economies

were fundamentally on the receiving end and were not capital exporters, as is the case at present.

Table 2 provides data for the net external financial position in Asia and Latin America through 2011. The net position tends to be small. Latin America has a net (negative) position, equivalent of 12% of total assets. Even under these circumstances, the financial impact of external events can be considerable, due to the differential behavior of gross assets and liabilities.

Concluding remarks

The loss of wealth remains a major burden on the world economy. Policy makers continue to support demand, in the face of economic growth that remains weak. However, the injection of liquidity and increase in government debt has a limit, to the extent



that the public is developing a negative perception about the ability of government and tax payers to cover the mounting debt obligation currently being incurred. The technically-denominated Ricardian equivalence between debt and taxation (the fear that debt will eventually be reflected in higher taxes, inflation or default), while far from exact, imposes a level of discipline over the longer term that needs to be faced and is entering into the political discussion. Government support may have helped increase the ability of the world economy to react to the losses experienced so far, but a plan is required to correct existing imbalances, which remain high. While inflationary expectations may be low, even with commodity prices, confidence in public debt is eroding, thus reducing rapidly the ability of governments to continue their expansionary policies of the last few years, particularly in Europe and the US.

Sources of Methods of Estimations

The estimates for stock market capitalization are based on data of the World Federation of Exchanges, and reflect the impact of the change in valuation of domestic stock markets, as well as the impact of exchange rates on that valuation. The estimates of changes in Bank assets include the effect of the change in the value of exchange rates on the overall value of the bank assets as well as the impact of the changes in the ratios of nonperforming loans in the total, as reported by the IMF. The estimates include the calculations of write-downs for advanced economies as reported by the GFSR of the IMF. Debt Assets reflect the changes in exchange rates, and imputes changes in valuation on the basis of an estimate of the impact of interest rates, including spreads on a the assumption that portfolios are based on loans with average rate maturities of seven years. In the case of emerging market debt,

the spread for each region is applied to the base US Treasury interest rate, as a proxy for advanced market rates. Private sector debt in advanced economies is assumed to carry an interest rate equivalent to the base US rate plus the average spread for Developing country sovereigns, most likely an underestimation of the cost of capital to the private sector. The estimates do not seek to separate the effect of changed risks from the impact of the changed stance of monetary and fiscal policy, and in this regard may result in an overestimate of the market changes.

The estimates include all changes during each year, and calculate a residual which is not explained by the factors described above. The unexplained part reflects the changes in quantities traded, for example the change in volumes traded at stock markets, the issuance of new paper by governments and the private sector, and the impact on the financial systems of actions taken by the monetary authorities world-wide. These changes in assets reflect countercyclical actions by the authorities, but in no way counter the effect on the wealth of economic agents as calculated here.

