

# Costs and Causes of Zimbabwe's Crisis

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CGD Notes

*Zimbabwe's recent economic crisis is so deep that it has set the country back more than half a century.*

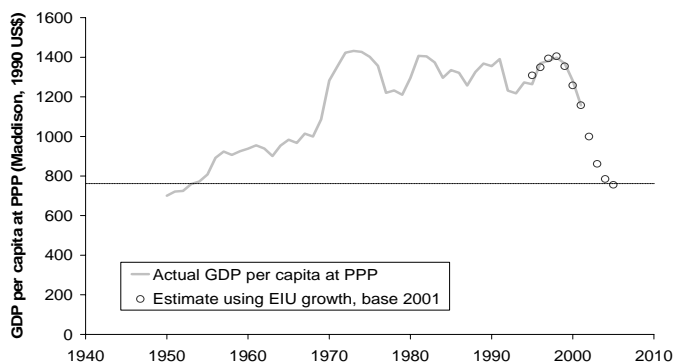
## Summary

Zimbabwe has experienced a precipitous collapse in its economy over the past five years. The purchasing power of the average Zimbabwean in 2005 has fallen back to the same level as in 1953. For people in extreme poverty, a collapse like this translates directly into sickness and death. We conservatively estimate that persistence in the economic shock will cost the lives of at least 3,900 Zimbabwean children per year—about half the infant death toll from HIV/AIDS. The government blames its economic problems on external forces and drought. We assess these claims, but find that the economic crisis has cost the government far more in key budget resources than has the donor pullout. We show that low rainfall cannot account for the shock either. This leaves economic misrule as the only plausible cause of Zimbabwe's economic regression, the decline in welfare, and unnecessary deaths of its children.

and health. Lant Pritchett and Lawrence Summers, for example, found that after controlling for many factors, increases in average income cause declines in national infant mortality rates—that “wealthier is healthier.”<sup>1</sup>

If we know growth is beneficial and can have measurable positive effects for a range of development outcomes, then what about the flip-side: What is the cost of not growing or even contracting? To answer this, we look at Zimbabwe, a recent case of rapid economic collapse. The costs of stagnation or an economic contraction are especially relevant for policymakers because of the current state of our understanding of the sources of growth and the development process. It is certainly useful to know that higher incomes are better, but it is still not very clear to policymakers and economists how to generate greater economic growth.<sup>2</sup> It may be even more important to know the cost of stagnation or collapse because we do have a pretty good idea of what can destroy an economy. In other words, we may not know exactly what countries need to do to grow, but we do know lots of things they should not do. Unfortunately, Zimbabwe illustrates this all too starkly.

Figure 1: Wiping out 52 years of income growth



Sources: Maddison (2003), EIU, UN

## Introduction

Economic growth is not sufficient for development, but it is necessary. Most obviously, in countries where average incomes are very low and poverty rates are high, income growth is needed to boost consumption and reduce poverty. At the same time there is an increasing understanding that growth is also needed to accelerate improvements in health, education, and the quality of life. This is because an expanding economy provides the resources, opportunities, and incentives for improving other indicators of welfare, such as schooling

## Estimating the Costs

Zimbabwe, once a vibrant and diversified economy, had been a hope for Africa's future. Today, it is a country in deep crisis and the signs of collapse are everywhere. The economy has contracted in real terms in each of the past five years, inflation is in triple digits, the local currency has lost 99% of its value, and almost half of the country faces food shortages. Unsurprisingly, up to one-quarter of the population has fled the country. Many of the 'costs' of the recent economic collapse in humanitarian terms are evident. We assess here, first, the relative impact on incomes for the average Zimbabwean citizen. Second, we also estimate the additional hidden costs in lost lives from the crisis due to medium-term income effects.

## How has the crisis affected incomes?

As shown in Figure 1, Zimbabwe's recent economic crisis is so deep that it has set the country back more than half a century. In 1953 the average person living

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in then-Southern Rhodesia had an average income of \$760 per year (in constant 1990 US\$ at purchasing power parity rates). In mid-2005 the average Zimbabwean had fallen back to that level, wiping out the income gains over the past 52 years.<sup>3</sup> The scale and speed of this income decline is unusual outside of a war situation. In fact, the income losses in Zimbabwe have been greater than those experienced during recent conflicts in Côte d'Ivoire, Democratic Republic of Congo, and Sierra Leone.

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#### ***How many additional children will die as a result of the crisis?***

There are many ways in which economic crisis can directly cause deaths, including starvation, lack of access to previously available medicines, or economically motivated violence. But beyond these direct and overt channels, there are also strong relationships between income levels and health indicators that suggest losses of income systematically create additional deaths that would not occur in higher income environments. In other words, the economic crisis itself kills people.

Income levels and changes affect a wide range of quality of life variables. Here, as an illustration, we estimate only the impact on infant deaths. The elasticity of infant mortality to income per capita has been estimated by several studies.<sup>4</sup> The most conservative estimate of this relationship in the literature—that of Pritchett and Summers, which isolates the percent change in infant mortality *caused* by a percent change in real national income—is equal to  $-0.28$ .<sup>5</sup> This effect is realized within five years of the change in income. In the above figure, real GDP per capita declined in Zimbabwe by 46.2% between 1998 and 2005.

In a typical country, this conservative elasticity estimate means that this drop would produce a 12.9% increase in the infant mortality rate within five years. This estimate is uncertain; there is a 90% chance that it lies between 3% and 23%.<sup>6</sup> The most recent estimate available of infant mortality in the middle of this drop is the World Bank's 2003 figure of an infant mortality rate of 78 per 1,000 births.<sup>7</sup> This suggests that the collapse, if not reversed within five years, will lead to an increase of 10 in the infant mortality rate. Taking this figure combined with the UN forecast of 383,000 births<sup>8</sup> in Zimbabwe in 2010, *suggests that persistence in the crisis could cause at least 3,900 infant deaths per year.*<sup>9</sup>

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#### ***How does this scale compare with HIV/AIDS?***

In 1990, largely before the HIV/AIDS epidemic began to produce disastrous rises in mortality throughout the region, the infant mortality rate in Zimbabwe was 53. By 2001 — by which time the HIV prevalence in Zimbabwe had grown to among the highest in the world at 25% of the adult population<sup>10</sup>— the infant mortality rate had risen to 73. If we conservatively assume that this rise of 20 in infant mortality is due entirely to the pandemic, this suggests that *the impact of the economic crisis on child health in Zimbabwe has the potential, within five years, to be at least half as bad again as that of the AIDS epidemic.*

#### **Uncovering the Causes**

If the recent economic crisis in Zimbabwe has set the country back half a century in income growth and will kill thousands of children per year, the obvious questions are 'how did this happen?' and 'who is responsible?' The government's official position has been that any economic difficulties are the result of a drought and/or economic sabotage by any number of the country's enemies. We assess both of these claims before turning to other possible answers.

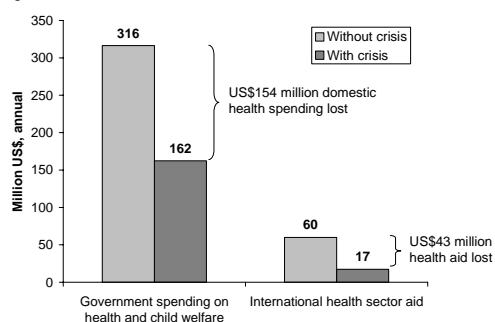
#### ***Are outsiders to blame?***

The government's frequent claims of external plots to destabilize Zimbabwe encompass a long and increasingly irrational list of saboteurs, such as the International Monetary Fund, the British government, and an international gay conspiracy. In occasional bouts of official schizophrenia, the government sometimes combines these threats, such as President Robert Mugabe's public rant against Tony Blair as the "the gay government of the gay United gay Kingdom."<sup>11</sup> Another recent example is the claim in the *Herald*, a government mouthpiece, that the US, at the behest of the UK, is now controlling the weather in order to cause a drought in Zimbabwe.<sup>12</sup> While these outbursts suggest either cynical propaganda or growing paranoia among the leadership, they are simply not credible explanations of the crisis.

A less hysterical version of external blame could be related to the cutoff of international aid. Certainly, donors have withdrawn hundreds of millions of dollars in aid from Zimbabwe and the government could plausibly argue that this precipitated the crisis and contributed to any additional infant deaths. Setting aside the reasons for donor withdrawal for a moment, it thus seems fair to examine the scale of lost revenue in

terms of aid from donors compared to lost revenue owing to lower tax revenue because of the crisis.

Figure 2: Lost resources



Such an exercise is not difficult. We can compare the decline in aid money for health to the volume of domestic resources for health lost from the crisis. Suppose we take 1994 as the base year for aid—a local peak following which aid flows declined every year to the present. The OECD data show that foreign aid to Zimbabwe's health sector declined by \$43 million between 1994 and 2003.<sup>13</sup> We then can ask how much more domestic money for health the government would have if economic production had not collapsed. (Health spending as a fraction of GDP has been relatively constant over time, about 2.5%–2.8%.) We find that domestic resources for health would be almost twice as large—an increase of US\$154 million per year—if GDP had not collapsed.<sup>14</sup> This suggests (Figure 2) that the loss of resources to the government from economic decline is vastly larger than resources withdrawn by donors. Indeed, *the economic crisis has cost more than three times as much money for health as the donor withdrawal.*

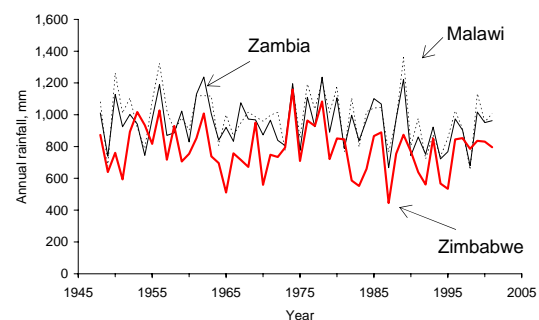
#### What about the drought?

An alternative explanation, and a favorite of President Mugabe (as well as some relief organizations and even visiting IMF missions),<sup>15</sup> is that severe drought is primarily responsible for the collapse in output in Zimbabwe. On the face of it, this seems possible, especially since so much of Zimbabwe's economy is based on rain-fed agriculture and the country faces a regular cycle of rainfall variability.

Economist Craig Richardson, using rainfall data from Zimbabwe's own Department of Meteorology, has shown that this argument does not hold up to the evidence. He shows that the 'drought' of 2000/01 was only about 22% below average, and less severe

than at least twelve other recent low rainfall periods. More importantly, Richardson shows that the tight historical relationship between GDP growth rates and rainfall cycles over two decades no longer held after 1999.<sup>16</sup> Indeed, when rainfall recovered, the economy continued to decline.

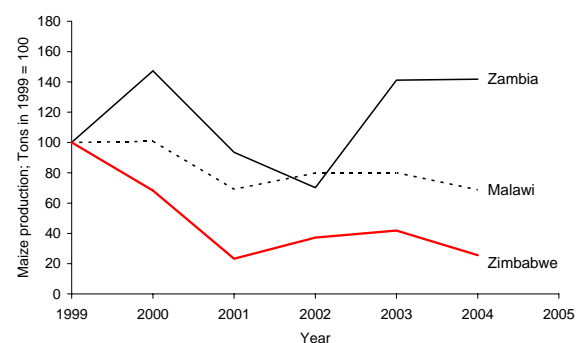
Figure 3: Rainfall in key maize regions



Source: World Bank (2003) See fn 17 for detail on data.

To his analysis of previous droughts, we add more evidence by comparing Zimbabwe to its neighbors. Data suggest that rainfall patterns are regional; since 1948, there has *never* been a two-year period in which an important drop in rainfall in Zimbabwe's maize-producing regions was not associated with a corresponding drop in Zambia and Malawi as well (Figure 3).<sup>17</sup> Despite this pattern, Zimbabwe's decline in maize production has been dramatically greater than its neighbors over the past 5 years (Figure 4). National maize production fell 74% from 1999 to 2004, while in Malawi it fell just 31% and in Zambia it actually increased.<sup>18</sup> Thus, it appears that Zimbabwe's unlucky weather does not sufficiently account for its economic collapse.

Figure 4: Maize production, 1999-2004



Source: USDA

*...Zimbabwe's unlucky weather does not sufficiently account for its economic collapse*

### Conclusion: Misrule kills

If neither the drought, donor withdrawal, nor nefarious economic plots explain the depth and persistence of the crisis, this leaves few other plausible culprits than misrule. In many ways it seems obvious that Zimbabwe's current economic difficulties are linked to specific government policy decisions. Harvard's Samantha Power even used Zimbabwe as an example of 'how to kill a country', suggesting ten ways in which Mugabe destroyed his country's economy.<sup>19</sup>

The list of misgovernance is long. The policy of land seizures and the chaotic disruption on the farms is likely the main reason the staple maize production fell by three-quarters. This impacted rural incomes, exports, and food security. Indeed, Zimbabwe once exported food, but now requires massive food aid. In addition to the frontal attacks on agriculture, the rest of the economy suffered from the undermining of property rights and absurd macroeconomic management. The government has run huge budget deficits (22% of GDP in 2000!) and printed money to cover the gaps—with the predictable results of high inflation (which hit 620% in November 2003). Overall, manufacturing has shrunk by 51% since 1997 and exports have fallen by half in the past four years.<sup>20</sup> Political troubles combined with the abandonment of sensible economic policy also closed off most of the aid tap, scared away most foreign investment, and chased much of the talented workforce out of the country.

While many of these actions appear economically irrational, they may be explained in a perverse political logic. It can hardly be a coincidence that the economy began its precipitous fall just as the ruling party unleashed a wave of political violence and repression directed against a rising opposition movement. Most noticeably, the forcible appropriation of commercial farms seems calculated to undermine the financial and popular support for the opposition.<sup>21</sup>

Unfortunately, the mismanagement and economic lunacy continues today. Inflation remains in triple-digits, the 2005 budget includes a more than tripling in public expenditure, and the government clings to propaganda, such as its implausible forecast of 28% growth in agriculture this year. This suggests that—regardless of rainclouds or imaginary foreign scheming—economic misrule will continue to cost Zimbabweans not only their children's opportunities for a better life but, for many, any life at all.

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### Notes

<sup>1</sup> L. Pritchett and L. Summers (1996), "Wealthier is Healthier," *Jnl of Human Resources* 31 (4): 841-868.

<sup>2</sup> C. Kenny and D. Williams (2001), "What Do We Know About Economic Growth? Or, Why Don't We Know Very Much?" *World Development*, 29 (1): 1-22.

<sup>3</sup> For 1950-2001, A. Maddison (2003) *The World Economy: Historical Statistics* (Paris: OECD). For 1995-2005, we construct estimates based on *Zimbabwe Country Reports* from the EIU (various dates) and the UN's *World Population Prospects: The 2004 Revision*.

<sup>4</sup> Among the best known are Pritchett and Summers (1996); D. Filmer and L. Pritchett (1999), "The impact of public spending on health: does money matter?" *Social Science and Medicine* 49: 1309-1323; L. Wang (2003), "Determinants of child mortality in LDCs," *Health Policy* 65: 277-299.

<sup>5</sup> Pritchett and Summers (1996), Table 4, Col. 6, p. 855.

<sup>6</sup> Pritchett and Summers (1996), *ibid.* The standard error on their estimate, -0.13, implies that with 90% certainty the coefficient is between -0.064 and -0.496.

<sup>7</sup> World Bank (2005), *World Development Indicators Online*. The infant mortality rate is the number of children that die within one year of birth, per thousand live births.

<sup>8</sup> UN's *World Population Prospects: The 2004 Revision*.

<sup>9</sup> With 90% confidence, the increase in infant mortality lies between 2.3 and 17.9, giving an estimate of additional deaths between 880 and 6,800.

<sup>10</sup> UNAIDS estimates the adult (15-49) HIV rate (%) at end 2001 as 24.9%. At end 2003 it was 24.6%. *UNAIDS Report on the Global AIDS Epidemic 2004*.

<sup>11</sup> "Britain's troubles with Mugabe," BBC Online, April 3 2000; Mugabe interview with Sky News, May 24, 2004.

<sup>12</sup> "UK, US 'caused Zimbabwe droughts,'" BBC Online, June 28, 2005.

<sup>13</sup> In 1994 Zimbabwe received US\$560 million from donors, of which about US\$60 million was for health. In 2003, the latest year available for which data are available, Zimbabwe received just US\$186 million in 2003 (OECD's Development Assistance Committee database). US\$17 million in aid was allocated for health.

<sup>14</sup> Total government spending both pre-crisis and post-crisis has been about one-third of GDP (according to the EIU's *Country Reports* for Zimbabwe, average government expenditure as a fraction of GDP, 1996-1998: 32.2%; average 2002-2004: 33.2%). The government budget for 2004 allocated 10.8% of its spending to "health and child welfare", while total government spending was 34.4% of GDP. This suggests that in 2004 public expenditures for health and child welfare represented 3.7% of GDP, roughly equivalent to US\$167 million in total or US\$13 per citizen. Thus the cost of the economic crisis on health and child welfare spending has been about US\$154 million per year. (1997 GDP was US\$8.5 billion but dropped to US\$4.5 billion by 2004, according to the EIU. The difference, multiplied by 3.7% is US\$154 million.)

<sup>15</sup> The "Statement by the IMF Staff Mission in Zimbabwe" issued June 27, 2005 (IMF Press Release 05/151), lists "drought" first among the reasons for the sharp decline in output in 2005.

<sup>16</sup> Craig Richardson (2005), "The Loss of Property Rights and the Collapse in Zimbabwe" mimeo.

<sup>17</sup> Based on data from World Bank (2003), *Africa Rainfall and Temperature Evaluation System* (ARTES). Data is for key maize-growing regions (Mashonaland West in Zimbabwe, Eastern Region in Zambia and Central region in Malawi).

<sup>18</sup> Source: USDA (2005), Foreign Agr. Service, PSD Online db.

<sup>19</sup> S. Power, "How to Kill a Country: Turning a breadbasket into a basket case in ten easy steps—the Robert Mugabe way," *Atlantic Monthly*, December 2003.

<sup>20</sup> Robertson Economic Services, Harare.

<sup>21</sup> Human Rights Watch, "Zimbabwe: Fast Track Land Reform In Zimbabwe," March 2002.