STATISTICIANS are supposed to be sticklers for accuracy. So how can $9 trillion-worth of output have gone missing? This is The Economist’s estimate of the world’s shadow (black or underground) economy—where business takes place off the books, out of the gaze of taxmen and government number-crunchers. It includes both unrecorded legal income, such as that of builders paid in cash, and the proceeds of illicit activities such as drug-dealing and prostitution.

By definition the shadow economy cannot be measured precisely; it requires some cunning economic detective work. Our estimate is based on a new study by Friedrich Schneider, an economics professor at the Johannes Kepler University in Linz, Austria. He has attempted to measure the size of the shadow economy in no fewer than 76 developed and emerging economies.

Within Mr Schneider’s sample of countries, underground activity is equivalent to 15% of officially reported GDP, on average, in rich economies, and around one-third of GDP in emerging ones. According to the IMF, official global GDP in 1998 was $39 trillion (converting local-currency figures at purchasing-power parity). If so, almost $9 trillion of activity—a volume of output equivalent to another America—went undetected.

For the rich economies, Mr Schneider based his estimates on the “currency-demand approach”, which tries to estimate the amount of underground activity by examining the amount of unexplained cash sloshing around in the economy. He assumes that the black economy works largely on cash to dodge the taxman or the policeman, and so a bigger shadow economy means a greater demand for banknotes.

By relating “excess” currency in circulation (that unexplained by conventional factors) to forces that push people into the shadow economy, such as high taxes and onerous regulation, he produces an estimate of the size of the shadow economy in each country. But this approach works less well for poorer countries, where cash is more widely used in the official economy; so here he uses the “physical input method”. This tries to isolate “excess” use of electricity (ie, abnormally high consumption relative to official output), as a rough proxy for “shadow” activity.

Using these techniques, Professor Schneider reckons that Nigeria and Thailand have the world’s largest black economies, both accounting for more than 70% of official GDP (see chart). In emerging economies, the shadow economy is driven not so much by the incentive to evade taxes, which tend to be lower than in rich economies, as by a desire to evade the law. For instance, Thailand’s thriving shadow economy largely consists of crime: gambling, narcotics and the sex industry.
Among the rich economies, Italy, Spain and Belgium boast the biggest unrecorded activity, at 23-28% of GDP. This is to be expected: the higher the tax burden and the more intrusive the regulation, the bigger the incentive to hide in the shadows. In both Italy and Belgium the total “tax wedge” (the sum of the rates of sales and income taxes and social-security payments paid by an average earner) amounts to over 70% of earnings. In contrast, the tax burden on the average American is only 41%.

Mr Schneider also estimates how many people are engaged in the shadow economy (including unregistered workers, illegal immigrants and people with second jobs). In Italy, almost half of the labour force may work either part- or full-time in its famous economia sommersa. Mr Schneider also reckons that 22% of Germans work at least partly in the black economy, up from 10% in the 1970s. The shadows seem to be lengthening over Europe.