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Tax Evasion and the Impact of International Regulation: A Summary of Empirical Results

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While combating tax evasion ranks highly on the international policy agenda and journalists are covering leak after leak, the economics profession at large has somewhat neglected the subject until recently. In the last years, however, a combination of better international financial data and ingenious identification strategies in several pioneering studies has made the subject popular in empirical economics. These contributions are summarized below.

Tax noncompliance is traditionally discussed as either legal avoidance or illegal evasion. Tax avoidance would for example entail tax saving strategies by large enterprises, such as Google's "Double Dutch Irish sandwich": legal and therefore not hidden. Tax evasion is defined as an illegal act of hiding income from authorities and most often linked to personal wealth. This roundup is concerned with illegal tax evasion. Tax evasion commonly takes place by use of sham corporations in one or more tax havens: jurisdictions characterized by low or zero tax rates and strict bank secrecy rules (Milesi-Ferretti and Lane, 2010; Zucman, 2013). However, economic activity in a tax haven does not necessarily reflect tax evasion. Even when fully complying with tax codes, journalists cite several reasons for wealthy individuals to disguise their identity: to protect families from kidnapping, avoid paying over-inflated prices or be treated fairly in bidding competitions (Greive and Hildebrand, 2016).

A myriad of data leaks, successful amnesties for self-reporting, as well as numerous cases of high profile individuals caught red handed indicate that some financial activities in tax havens are in fact problematic from a legal perspective. Economists analyze the tax evader's choice not as a moral one but as weighting the benefit of committing a crime against the likelihood of detection and therefore punishment (Becker, 1968). Higher taxes make tax evasion more attractive whereas well informed tax authorities increase the likelihood of detection, making tax evasion less attractive. Since lowering taxes erodes government finances, international regulation attempts are mainly focused on increasing the threat of detection by exchanging information on individuals.

1. National and international regulation attempts

Both the Organisation for Economic Cooperation and Development (OECD) and the European Union (EU) have launched initiatives along these lines (for a recent legal overview, see Christensen and Tirard, 2016). After pointing out problems of international tax competition in 1998, the OECD established the [Global Forum on Transparency and Exchange of Information](#) to serve as the designated body for tax compliance matters (OECD 1998, 2000). One of the forum's initial actions was to mandate countries to sign a minimum of 12 bilateral Tax Information Exchange

Agreements (TIEA). The provisions in these agreements established procedures for bilateral information exchange upon request between national tax agencies. More than 1000 of such treaties have been signed or existing ones amended.

In the same spirit, the EU has published a series of Council Directives since 2003 (2003/48/EC, 2011/16/EU, 2014/48/EU, 2014/107/EU), which aim at improving information exchange and tax collection of member countries. The latest amendments in both initiatives stipulate automated exchange of information. The OECD established the Common Reporting Standard Multilateral Competent Authority Agreement (CRS MCAA), which has been signed by 87 jurisdictions as of November 2nd, 2016. The first wave of participating countries will begin exchanging information in September 2017, with the second wave following a year later. These reporting standards have been incorporated in the latest EU directive. Countries still have to agree to bilaterally activate automatic information exchange and while more than 1000 of those activations have taken place, it is too early to exclude the possibility of cherry-picking by tax havens.

National governments are expanding their efforts as well: The US government adopted the Foreign Account Tax Compliance Act (FATCA) on 18 March 2010, which requires foreign (non-US) financial institutions to disclose information on foreign accounts held by US persons. In contrast to multilateral arrangements, FATCA still addresses the issue of tax evasion via a network of bilateral agreements, thus leaving loopholes between specific countries. In another initiative, on November 1st, 2016, the Federal Ministry of Finance of Germany published a proposal for new legislation to increase transparency of interest earnings from foreign capital by German citizens. The provisions therein set out disclosure obligations regarding formal affiliation and business dealing with firms domiciled outside of the European Union as well as the European Free Trade Association. Moreover, the draft suggests repealing parts of German bank secrecy and requiring banks to inform tax authorities of offshore services carried out for clients.

2. Quantifying the extent of illegal offshore wealth

Estimating the stock of global offshore wealth due to illegal tax evasion is a difficult task due to the secrecy and elusiveness of data on the subject. The most widely cited study attempting this suggests that offshore financial wealth amounted to USD 7.6 trillion at the end of 2013, or an equivalent of 8 percent of global household financial wealth (Zucman 2013, updated in Zucman 2015). This translates into 10 percent of global GDP and is quite likely a lower bound since it only includes international deposits and foreign portfolio investment (FPI). Other variables such as foreign direct investment (FDI) or investments in luxury items and real estate were omitted.

Zucman's calculation is based on discrepancies in international financial statistics, which show a gap between aggregated assets and liabilities in the International Investment Positions (IIP) of all countries. At the global level, more liabilities than assets are reported meaning that the world owes itself money with no lender claiming it (Lane and Milesi-Ferretti 2007). Since IIP reporting is based on the residence principle, assets and liabilities are reported as held against the country of residence of the immediate counterparty with which a transaction is carried out. Illustrating this, let us assume that a French resident holds stock of a US company through a bank account in Panama. This investment should, if properly reported, be reflected in France's IIP as a claim against the United States and in the United States as a liability vis-à-vis France. However, in the case of deficient information exchange between the countries, France has no information on these funds and the United States recognizes them as liabilities vis-à-vis Panama: the residence of the custodian bank. The bank in Panama is aware of the ownership structure and reports nothing:

a claim of France versus the United States (US) does not enter the IIP of Panama. As a result, more liabilities than assets are recorded globally. The French assets vis-à-vis the US are not recorded. This gap in cross-border financial statistics has been acknowledged in research for a long time and is known as the custodial bias (see [IMF data descriptions](#)).

Zucman provides a global estimate of this gap based on the External Wealth of Nations ([EWNII](#)) database by Lane & Milesi-Ferretti (2007), the Coordinated Portfolio Investment Survey ([CPIS](#)) as well as national sources. He points out that the debt/equity ratio of these unallocated positions closely reflects that of Swiss foreign portfolios on which more detailed data is [available](#) and for which tax evasion motives are likely (Zucman 2013, table III). Subsequently, Zucman uses the ratio of securities to bank deposits (roughly 3:1) in Switzerland to extrapolate from his estimation of tax evasion in securities to total offshore wealth to arrive at his final estimate of USD 7.6 trillion mentioned above.

Similar to this methodology, Pellegrini, Sanelli and Tosti (2015) of the Banca d'Italia calculate the global assets-liabilities gap for portfolio investments. While basing their asset aggregates on the CPIS, the authors adjust for updated statistics on liabilities and combine CPIS (IMF), IIP (IMF) and EWNII data. The authors add offshore deposit statistics from the [Bank for International Settlements](#) (BIS) to the portfolio investments and suggest total offshore holdings ranging between USD 6.2 and 7.2 trillion at the end of 2013.

Civil society groups working on the subject have criticized such approaches for ignoring some USD 5 to USD 10 trillion in offshore non-financial assets like real estate, art, yachts and gold (Christensen and Henry, 2016). A report by the Tax Justice Network (TJN) estimates that in 2010, at least USD 21 trillion were held through offshore portfolios (Henry 2012). The results in the report were derived from the BIS data mentioned above, scaled up by a ratio of cash to bank deposits. The ratio was derived from industry wealth reports and ensures that more types of capital, such as foreign direct investment, are captured in the analysis, potentially at the cost of more assumptions.

Understandably, politicians and civil society groups prefer estimates of total unrecorded wealth. A shortage of reliable data, however, limits empirical economists in meeting this demand. Currently, such holistic estimates are only possible by making assumptions that are hard to defend, such as assuming that all financial wealth in tax havens is associated with tax evasion. By avoiding such assumptions, the estimates by Zucman (2013) and Pellegrini, Sanelli and Tosti (2016) are the most systematic analyses so far.

3. Identifying the impact of specific regulation attempts

The difficulties in estimating the overall size of illegal offshore holdings make direct estimations of the success of policy measures against tax evasion unreliable. Therefore, another strand of empirical literature aims at estimating reactions of specific capital positions to specific measures such as bilateral information exchange. Intuitively, the French tax evader investing in the United States via Panama could feel threatened by the information exchange agreement signed on the June 3rd 2011 between those two countries. She could relocate funds to a tax haven which has not signed such a treaty with France: Macau, for example. This is exactly what Johannesen and Zucman (2014, see Kurdle, 2008, for an early study of the subject) find when analyzing bank deposits in 13 tax havens. They directly identify deposit shifting from treaty signatory havens to non-signatory havens by using data supplied by banks in tax havens. Johannesen (2014) analyzes the same bilateral data but focused on the effect of the EU savings directive of 2005 on holdings in Switzerland.

His results confirm the finding of a bilateral effect as well as deposit shifting and therefore no aggregate effect.

Hanlon, Maydew and Thornock (2015) address both the threat of detection and the benefit of evading using bilateral US data. They establish a relationship between increases in ordinary and capital gains taxes inside the United States and capital inflows from tax havens. Since foreign investors are exempt from these taxes, the authors argue that such inflows are most likely driven by US citizens re-investing in the US via sham corporations in tax havens. Such round-tripping, also known from foreign direct investment (see for example Haberly and Wojcik, 2014 or Ledyeva, Karhunen and Whalley, 2013), naturally becomes more rewarding with higher taxes. In line with other studies, they find a negative reaction of capital inflows to the two TIEAs being considered in their research. Indeed, this interpretation is emerging as the first general consensus by scholars working in this field: Bilateral treaties and information exchange do have an impact on investor's portfolio choices but are bound to leave open a myriad of loopholes which are actively being used.

Conclusion

The evolution of regulative attempts to combat tax evasion follows a distinct learning curve, moving away from bilateral treaties. Multilateral agreements as well as automatic exchange of information have been identified as more promising tools. Empirical research would profit greatly from continuing improvements in making existing data available as well as a push for better and more coordinated statistical reporting on international capital positions. While this lack of data currently inhibits the scope of scientific research, existing results do support the casual observation that hidden funds remain elusive. Bilateral treaties have an effect on the financial positions between the countries signing them, almost only for those funds to appear elsewhere. The total stock of hidden wealth is not decreasing which cautiously hint at a slow relative decline only. It is in this light, that researchers in international law are hailing the move towards multilateral agreements with automatic information exchange as an "amazing development" (Christensen III and Tirard, 2016). If they are right in their optimism remains to be seen.

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