



- Marking-to-market is a concept which has started to invade a significant portion of both accounting and cross-border contracts. As a concept it is good, as it makes accounts more informative, but it also introduces problems.
- One of the problems is that it accelerates losses when markets collapse, and therefore constitutes a risk of being one of the elements that make companies go bankrupt in a crisis. This can be avoided by changing the accounting guidelines for mark-to-market accounting.
- Another problem is that mark-to-market contracts, where the asset sits in another country, most often in a tax haven, create the perfect opportunity for companies to transfer untaxed funds to tax havens, reducing taxes in the country where the company resides. The solution is to tax the mark-to-market profit through easily available mechanisms.

# THE ROLLER-COASTER MECHANISM IN THE WORLD ECONOMY.

Mark-to-Market and transactions outside the market



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PWYP Norway has identified 7 areas as the most damaging for resource-rich developing countries: Derivative abuse, Transfer mispricing, Tax regulation abuse, Mark-to-Market mechanisms, Capital Gains abuse, Corrupt Practices and Criminal Practices. PWYP Norway has suggested a fail-safe approach to eliminate derivative abuse – move all derivatives and other financial instruments into a tax base that is separate from the general tax base.<sup>1</sup> The effects of transfer mispricing and tax regulation abuse can effectively be eliminated by a reinventing an old tax mechanism – reversing already existing tax credit principles – exemplified in recent briefing on the Reverse Tax Credit method.<sup>2</sup> Corrupt practices and criminal practices are already being worked by many and Publish What You Pay Norway will not work these areas. The two remaining areas: mark-to-market and capital gains abuse will be covered in two separate reports of which this report covers mark-to-market mechanisms.

Mark-to-market is an accounting concept whereby an asset in the balance sheet is adjusted on a regular basis to its market value. Between affiliates in countries with markets and with taxation, this concept updates the value of an asset in the accounts, with changes affecting both the profit and loss statement and the balance sheet. The precursor to mark-to-market was the regular change of receivables and liabilities in another currency than the reporting currency to its updated value at month-end or year-end. This is a use of mark-to-market that is necessary in order to close accounts in the reporting currency on a regular basis and is a desirable practice.

The mark-to-market concept first developed among traders on futures exchanges, and began to spread in the 1980's. In early 1990's mark-to-market accounting started to give rise to various scandals, which culminated with the Enron scandal. In the sum-up words of Wikipedia<sup>3</sup>:

*“As the practice of marking to market caught on in corporations and banks, some of them seems to have discovered that this was a tempting way to commit accounting fraud, especially when the market price could not be objectively determined (because there was no real day-to-day market available or the asset value was derived from other traded commodities, such as crude oil futures), so assets were being ‘marked to model’ in a hypothetical or synthetic manner using estimated valuations derived from financial modeling, and sometimes marked in a manipulative way to achieve spurious valuations..”*

This is an example of a very undesirable practice of marking to “market”.

The “mark-to-market” concept has pervaded the entire thinking on assets and has spilled over to the thinking around transactions to such a degree that it now governs most assets in the balance sheet and the revenue that arises from these. It is now probably competing with derivatives for the second place with regard to the ability to transfer funds out of normal to high tax jurisdictions and into low- or no-tax jurisdictions, mostly because it is viewed as a legitimate and legal practice between countries with markets.

The largest problems with the thinking behind “mark-to-market” arises in one of the following situations: (1) there is no “market” and a value needs to be calculated in a model, (2) the “market” is very volatile and unpredictable, and (3) the concept is transferred to other areas whereby historic cost accounting and contracts based on an acceptable return is replaced by marking-to-market accounting and contracts based on market rates.

The essence of the mark-to-market concept and the derived fair market value accounting is that it turns the idea of competition on its head. While competition is generally thought of as

driving prices and thus the cost of doing business down, the opposite is now happening when everybody is adjusting to a market place that is working on the margin. It is comparable to a situation where all companies were always paying taxes equal to the marginal tax rate, i.e. the highest tax rate possible. A major part of the prices (and thus the cost in today's society) is now migrating towards being settled at the margin. This has been driving a massive cost increase in the extractive industries in the last 10 years, and has moved massive amounts between countries both within each multinational company and also from the extraction companies and over to the service industry companies. Combined with rebate or kick-back agreements negotiated at the head office or more likely in a tax haven operation, this becomes a toxic combination when it comes to the ability of countries to tax profits and tax the resource rent.

A market economy is an economy in which the prices of goods and services are determined in a free price system based on competition between various providers of goods and services to fulfill the market demand for these goods and services. A market economy does not operate outside the society at large. In order to have markets there needs to be people, corporations and governments that create demand, governments are needed to provide for regulation of employment markets, financial markets, equity markets and a judiciary system in order to avoid anarchy and societal breakdown (governments provide stability, a valued concept by corporations). Governments also need financing from taxes in order to provide infrastructure in its widest definition (viewed as common goods, i.e. a good that is shared and beneficial for all (or most) members of a given community), whether it is transportation, health, security or others. The underlying concept is that in a market economy goods and services are demanded and supplied in a system governed by regulations to provide stability (which enhances the market) and where profits are taxed in order to provide for the common goods, which are needed to provide that stability.

A market economy goes astray when participants in the market equilibrium (balance between demand and supply) are allowed to establish themselves in jurisdictions that are “outside the market”, i.e. they are establishing themselves in low tax jurisdictions where there is no or low taxation. When this is allowed, an unbalance is created in the market economy whereby (1) unfair competition is allowed to the detriment of the employees and corporations in countries that are paying taxes and (2) there is a constant leakage of funds from the market economy (the countries providing the market) and to the shielded economy that does not participate in the creation of the market economy.

Done between companies that are in true market places, the mark-to-market concept transfers money between jurisdictions that both have taxation of employees and corporations. However, when one of the entities is not in a true market place (most low-tax jurisdictions are very small countries, or they are scavenging on a market place that is much larger than themselves) anymore, then this allows a transfer of funds from a place within the market economy to a place outside the market economy. The consequence is that when the affiliated company in the normal or high tax jurisdiction is charging services onwards to a customer, there is almost never any taxable profits in the normal or high tax jurisdiction because both the revenue and the cost are determined by market rates. Following this principle, all the market fluctuations will benefit the owner in the lower tax jurisdiction while the affiliated companies providing the market and using the asset will have increasing costs as market rates increases. This system is ultimately leading to a significant transfer of pretax funds from countries with markets (developing or developed countries alike) to countries without markets (tax havens where the assets are not used at all).

As long as tax havens are allowed to participate in the “market” while not taxing the companies that are in these countries, these practices create unfair competition towards the companies that are registered in normal or high tax jurisdictions and over time also create massive problems for the global economy. It also creates a never-ending pressure for companies who have not utilized these practices to start utilizing them as they will else be less competitive.

<sup>1</sup> “Protection from derivative abuse”/PWYP Norway/ <http://www.publishwhatyoupay.no/publications> December 2011 [extract May 2017]

<sup>2</sup> “Taking away the tax effect of Tax Havens. Cross-border taxation methods and Reverse Tax Credit”/PWYP Norway, May 2017 [extract May 2017]

<sup>3</sup> Disclaimer: professionals should look directly to the US GAAP or IFRS guidelines, or literature covering these topics in more depth – the intention here is to give the uninformed reader a broad insight without going into the particulars

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## Preface

Publish What You Pay Norway is concerned with on the one hand exposing the mechanisms utilized by extractive industries and multinational corporations in general to move untaxed capital from resource-rich developing countries (and in many cases also industrialized countries) into tax havens, and on the other hand promote counter-mechanisms that allows countries to unilaterally do something about the problem if the international community is not able to agree on effective mechanisms to deal with the resulting problems.

Publish What You Pay Norway's main focus is to work for and ensure that extended country-by-country reporting is legislated in as many countries as possible to enhance the public oversight of extractive industry companies (and possibly other multinational companies) by investors, governments, media and civil society. We have this as our main focus because we believe that informed people take better decisions. Investors need to be better informed about the companies they invest in. Governments need to be better informed about the industries and the companies they are regulating and taxing. Media and civil society needs to be better informed about what is going on in private business. Transparency, and particularly in the form of extended country-by-country reporting, will give stakeholders much better information about the activities in extractive industries, and multinational companies in general, if the regulation is broadened to include all multinational industries.

We are living today at a time which has highlighted the dangers of journalists and independent investigators and whistleblowers, exemplified by the conference "Making transparency possible" arranged by Publish What You Pay Norway in December 2016. In this situation openness, transparency and information about how things works and information without having to dig for it becomes increasingly important to save people from putting themselves in personal danger to get the necessary information out to stakeholders. We believe knowledge about the content of this report – mark-to-market mechanisms and related transactions outside the market – is highly important in order to fully understand how multinational companies works and how this impacts the global economy.

There is a massive inertia in all the initiatives that are taken around the world. We have noted earlier that stakeholders are missing the simple and inexpensive solutions that Publish What You Pay Norway has promoted for the public oversight. This is why Publish What You Pay Norway has focused on mechanisms and instruments that can be enacted unilaterally, but which we encourage as many countries as possible go for in order to get the multinational companies under control, and once and for all get a total overview of which investments is being done where, how much production there is in each country, what costs is necessary to produce it and what revenues it generates as well as how many people are employed in these activities. It is usually when a country can do something unilaterally that one finds the instruments that can be enacted or agreed in an acceptable timeframe. This is why we encourage countries like Norway to go in the forefront when it comes to these initiatives. Norway is looked to as a front-runner by many countries. We saw this when Norway as the first industrial country entered EITI. We see that people take notice of what Norway is doing with respect to implementing extended country-by-country reporting (which is why it is so important to get it right!). We believe that Norway could also be in the forefront when it comes to utilizing and promoting instruments like

the Reverse Tax Credit to curb the results of transfer mispricing and tax regulation abuse. Last but not least, we believe Norway can be in the forefront in finding ways to limit or curb the mark-to-market mechanisms in order to stabilize the roller coaster the global economy is in and will continue with unless the right mechanisms are enacted to control the multinational companies.

Take the time to read this report, particularly if you are a government official, a journalist or a civil society representative in your country, and decide for yourself whether the information in this report is something that is relevant in your country. And then tell someone.

Mona Thowsen  
General Secretary, PWYP Norway

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*If the reader would like to share any comments, viewpoints, information or have any questions or suggestions for further investigations, please contact us at: [post@pwyp.no](mailto:post@pwyp.no).*

# This report

This report introduces the reader to the “mark-to-market” mechanism and illustrates how, when applied widely, the mechanism has the ability to transport enormous amounts of money cross-border and act as a multiplier in the world economy. This multiplier effect is like a heartbeat on steroids: without the steroids you have a regular heartbeat and volume, but with steroids the heartbeat and/or heart volume increases, increasing the risk of future failure. It is the same with the world economy: the mark-to-market mechanism increases the value of each transaction, which again lead to bigger failures when they do occur.

The mark-to-market mechanism together with the use of no- or low-tax jurisdictions means that multinational companies are able to move an increasing share of their profits into these same no- or low-tax jurisdictions. The effect is three-fold:

- there is a dwindling profit-margin to be taxed in the normal-tax jurisdictions
- it is impossible to use the funds in the no- or low-tax jurisdictions for dividends to investors, as the money is kept in an investment/high return/no taxation/ reinvestment loop in order to maximize bottom line for the multinational companies
- the money is tucked away in a loop outside of the traditional markets, so that when a crisis occurs, this money is unavailable as a buffer against economic downturns.

All can see the dwindling profit-margins due to amongst other mark-to-market mechanisms (without knowing exactly the mechanics behind). Many are starting to see the inability of multinationals to dividend funds back to investors (in many cases having to lend money to do so). Few are still realizing the effects of so much money circulating in a loop outside of the traditional money markets, effectively creating a grey (or black) market with the potential for severe repercussions in the traditional economy.

**This report will go through the effects of widespread use of mark-to-market mechanisms, and will introduce a simple, but efficient mechanism, whereby countries can unilaterally ensure that at least their economy is less disturbed by this fact. The more countries that utilize this mechanism to stop the abuse of mark-to-market principles, the less effect will the roller-coaster effect of the mark-to-market mechanism have in the world economy.**

## 1. Introduction to mark-to-market failures

Mark-to-market accounting started in the early 1980's. During the 1990's, scandals started to emerge regarding marking-to-market. Some spectacular scandals can illustrate the potential danger for loss of equity, instability of financial markets and the threat to the global financial systems. What this report will show is that mark-to-market accounting is just the tip of the iceberg, and what lies beneath the water line is not shiny white but murky black.

### 1998: Long-Term Capital Management

At its failure in 1998, Long-Term Capital Management (LTCM) had \$5 billion in equity, \$ 125 billion in total balance sheet assets and a notional principal of \$ 1,25 trillion in off-balance sheet items including swaps. Many of the off-balance sheet items were offsetting each other, so the notional is close to meaningless, but the important thing is the risk it posed. **The swaps were subject to two-way marking-to-market, which means that their current market value was always close to zero. But even when “fully collateralized”, these loans were exposed to the risk that Long-Term Capital Management could default at the same time as the collateral lost value<sup>4</sup>.** When LTCM lost its capital during successive stages of market movements that worked against them, investors in the fund could have been forced

to sell off tens of billions of dollars at liquidation prices resulting in massive losses. Due to the potential effect on financial markets New York Federal Reserve organized a bailout, avoiding a major financial crisis (which could have potentially avoided the 2008 financial crisis if it had happened).

### 2001: ENRON and Arthur Andersen

ENRON was named “America’s Most Innovative Company” by Fortune for six consecutive years between 1996 and 2001. **The company was hiding financial losses of the trading business and other operations of the company through mark-to-market accounting.** Mark-to-market is a technique used when trading securities where you measure the value of a security based on its current market value, instead of its book value. This can work well for securities, but it can be disastrous for other businesses. To further hide the facts, ENRON together with its auditor Arthur Andersen started to move part of their off-balance sheet items into SPV's (Special Purpose Vehicles). When SEC started to investigate the SPV-moves and markets went further against the company, ENRON filed for bankruptcy at December 2, 2001. The audit firm Arthur Andersen, an integral part of the story, seized to exist as an independent large audit firm, being split up worldwide and being acquired by or merged with other audit firms.

### 2008: Washington Mutual Bank, Lehman Brothers and the global impact

When Washington Mutual Bank (WAMUQ) failed in September 2008, it was the largest bank failure in American financial history but was the same month followed by Lehman Brothers filing for bankruptcy.

*The financial crisis officially started. The question on many people’s minds was, “How can a corporation go from billions of dollars’ worth of assets on their balance sheets to zilch overnight?” There are many factors that contribute to a bank’s failure, but part of the answer to why many banks were brought to their knees in 2008 is mark-to-market accounting (MTM), in which a security’s value is recorded in a company’s books at its current market value, rather than its book value. As you might imagine, this method can have serious repercussions in a bear market, leading to much larger losses than traditional accounting. As it turned out, it had even more serious repercussions when applied to new, thinly traded mortgage securities, an effect that contributed to the credit crisis of 2008 and the bank failures that ensued.<sup>5</sup>*

It is not general knowledge that mark-to-market accounting had a generous part in the 2008 financial crisis. Much more known is the US housing crisis and the connected financial bad debt instrument called Credit Default Derivatives (CDC's) or Credit Default Swaps (CDS's).<sup>6</sup> It is also argued whether mark-to-market is a good or a bad mechanism. At the end of September 2008, Newt Gingrich, former US House Speaker, wrote an article in Forbes called “Suspend Mark-to-Market Now!”.<sup>7</sup> On the other hand, in September 2009, one year later, Political Economy editor in Forbes and editor of Real Clear Markets, John Tamny, wrote an article called “Mark-to-market didn’t cause the crisis”.<sup>8</sup> Both are reasonably correct, mark-to-market did not cause the crisis, but mark-to-market wrongly applied and applied to the wrong assets clearly created an accelerator effect when the crisis hit. That is the main message and the main warning of this report: **mark-to-market principles introduce roller-coaster behavior in the global economy that is more and more difficult to handle for every time they occur because adjustments introduced after each turn ensure that every crash risk getting bigger and more spectacular.**

It “started” with a single calamity in 1998, Long-Term Capital Management, continued with the downfall of both the company and its advisor in the ENRON and Arthur Andersen disaster and had its largest outbreak to date in the financial crisis of 2008 where the aftershocks are still being felt, 8 years later. The next outbreak (combining derivatives and mark-to-market principles) may end the financial systems as we know them, and is

<sup>4</sup> Citations and facts from «Risk Management Lessons from Long-Term Capital Management», 2000, Philippe Jorin, Best Paper Award 2000 in the European Financial Management magazine. Recommended reading for further details.

<sup>5</sup> «Mark-to-market Mayhem», Investopedia, Jonas Elmeraj, <http://www.investopedia.com/articles/financial-theory/08/mark-to-market-mayhem.asp>

<sup>6</sup> “CDC’s the next problem», October 2008, National Critical Lawyer’s Group, <http://nclg.org.uk/cdc-the-next-big-problem/>

<sup>7</sup> «Suspend the mark-to-market now!», September 2008, Newt Gingrich, Forbes.com; [http://www.forbes.com/2008/09/29/mark-to-market-oped-cx\\_ng\\_0929gingrich.html](http://www.forbes.com/2008/09/29/mark-to-market-oped-cx_ng_0929gingrich.html)

<sup>8</sup> «Mark-to-market didn’t cause the crisis», September 2009, John Tamny, Real Clear Markets; [http://www.realclearmarkets.com/articles/2009/09/17/mark-to-market\\_didnt\\_cause\\_the\\_crisis\\_97411.html](http://www.realclearmarkets.com/articles/2009/09/17/mark-to-market_didnt_cause_the_crisis_97411.html)

likely to have the capacity to wipe out most of the funds in the world, including a majority of the Norwegian Pension Fund International and similar sovereign funds, which has a major stake in bonds or shares. Why is this not a major concern? Because it is difficult to piece together the likely outcome of future events on such grand scale, just as it for most people were difficult before major leaks like the Lux Leaks and the Panama Paper leaks to imagine the scale of the use of tax havens in the world.

Mark-to-market accounting is not bad in itself. Many times marking assets to the market makes a company's books more accurate than leaving the items at cost, but mark-to-market needs to

- be limited to defined asset classes where there is enough liquidity and published market prices, no exception
- for companies other than financial institutions have derivatives in a separate tax base<sup>9</sup>, in a separate part of the profit & loss statement (not part of operating income), and in a separate part of equity which is not allowed to influence the dividend base or capital requirements (it is not enough to just disclose the amounts of such assets that companies are holding)
- have write-down mechanisms for variations that go beyond normal market fluctuations that spread the variation over time in order for extraordinary large market movements to not have the immediate effect of wiping out the equity of key institutions
- be disallowed for finance institutions in the recognition that the global financial systems integrity is more important than short-term investor return. Disallowing it protects the long-term investor return. The difference is only the timing difference between unrealized gains and realized gains. If not disallowed for finance institutions, unrealized earnings must at least be recorded as a separate part of equity, which is not allowed to influence the dividend base, capital requirements and unrealized earnings from derivatives must not be allowed to be part of bonus calculations in finance institutions.

We will explain in more detail why these and other measures are necessary.

<sup>9</sup> «Protection against derivatives abuse»/PWYP Norway/ <http://www.publishwhatyoupay.no/publications>, December 2011 [extract May 2017]

## 2. The history of mark-to-market

Companies prepare financial statements in order to give stakeholders, mainly investors and for large companies the wider society, a yearly status update on profits or losses for the year and their composition and the assets at year-end for future revenue generation. Publicly traded companies also prepare shorter updates, normally quarterly, in order for the information to be up to date. The financial statements are prepared under so-called generally accepted accounting principles. These accounting principles develop over time.

Prior to the 1980's, accounting was done under the historical cost concept combined with the prudence principle. Historical cost accounting is based on that the purchase price is registered and summarized in the financial statements to form the cost side of profits and losses. Historical cost accounting was adjusted according to accrual principles and the prudence principle. Under the prudence principle, one should not overestimate the amount of revenues recognized or underestimate the amount of expenses. One should also be conservative in recording the amount of assets, and not underestimate liabilities. The result should be conservatively stated financial statements. Another way of looking at prudence is to only record a revenue transaction or an asset when it is certain, and record an expense transaction or liability when it is probable. The prudence principle resulted in the recording of the lowest of cost and market value, i.e. cost made an upper limit to what an asset could be registered at in the financial statements. If the market value went over and beyond the cost, then prudence stopped companies from registering unrealized profits.

This started to change in the 1980s when companies started to adopt mark-to-market accounting. With mark-to-market accounting, certain assets were recorded at their fair market values, not at lower of cost and market value, as was previously the norm. Investing in liquid assets that could give further profit increased, to the detriment of keeping surplus as cash. Companies argued that it did not make sense to keep recording liquid assets like stocks and derivatives at their cost, but that they should rather be at their market, or fair, value. Not everyone were a fan of marking assets to their market value though: *"Detractors say that mark-to-market accounting is dangerous because it allows companies to use hypothetical numbers to account for hard-to-value financial instruments (like collateralized debt obligations)."*<sup>10</sup>

In October 2008, in response to the effects mark-to-market accounting had on the subprime crisis, the Financial Accounting Standards Board proposed FAS 157-d, an accounting rule that would regulate the use of mark-to-market accounting on assets with no active market, but it is not even close to reducing mark-to-market accounting to a safe instrument. When markets are falling, the fall usually comes quite suddenly, hence the need for stricter boundaries on how mark-to-market can be used by companies, particularly financial institutions.

**The alternative to better regulation by the stock exchanges is for countries to use, unilaterally or collectively, suggestions like the ones in this report to curb the negative effects of mark-to-market mechanisms while at the same time keeping the benefits of marking-to-market.**

In Washington Mutual Bank's and Lehman Brothers case, "the use of mark-to-market accounting lead to extreme volatility for the company's shareholders. That's because the fair value of its subprime mortgages became increasingly difficult to calculate when the mortgage market began to dry up in 2007. As financial institutions clung to the high valuations to which they were accustomed, the bottom fell out of the subprime arena, and companies with billions of dollars of subprime on their books were forced to write those assets down to almost nothing. For investors, this meant that a company's assets could be wiped out overnight - and share prices reflected this".<sup>11</sup>

<sup>10</sup> «Mark-to-market mayhem», Jonas Elmerraji, Investopedia; <http://www.investopedia.com/articles/financial-theory/08/mark-to-market-mayhem.asp> [extracted January 2017]

<sup>11</sup> «Mark-to-market Mayhem», Investopedia, Jonas Elmerraji, <http://www.investopedia.com/articles/financial-theory/08/mark-to-market-mayhem.asp> [extracted January 2017]

For further reading, we recommend the US Securities and Exchange Commission's study on mark-to-market accounting.<sup>12</sup>

The result of mark-to-market accounting has been that all stakeholders have seen the information they need from the financial statements decline, even investors that the mark-to-market accounting was meant to target. In Norway, the list of stakeholders in the financial statement was removed from the Accounting Act in 2005. Instead, the mark-to-market accounting has become an instrument for the company to show-off (in good times) how "well" the management has run the company(-ies), while it's a fact that it's the markets that are behind the economics of the company (-ies). What mark-to-market accounting effectively is doing is pushing the positive side of investors' activities right back at them, while at the same time not taking full effect of the negative sides of marking-to-market in downturns. Investors should not be happy with this, and employees, media and governments should be even less satisfied with this development. This is the reason for the suggested changes to mark-to-market accounting in this report.

### 3. The concept of value

Cullen Roche posted in a blog; *"In the previous post I asserted that "value" is a nebulous concept much like "beauty". The reason it is nebulous is because none of us really knows what it is at any given time.*"<sup>13</sup>

Cullen's endnote on the concept of value in the same blog is very much to the point (extract of the endnote): value at any given future time must be viewed as the result of an environment with its own unique set of circumstances with its own unique set of participants with no necessary dependency on the way value was perceived in the past.

The reason why mark-to-market accounting came about was the need for investors to get a better view of the value in companies when shares are traded. This is under the "going concern" assumption, i.e. the assumption that the business will go on very much as before. This "steady-state" assumption is very far from reality when markets are experiencing high volatility. When assets have been written up to the market value when markets went up, then the subsequent fall will be even greater. The mark-to-market concept thus introduces a roller-coaster behavior in the companies' accounts: you are being dragged higher and higher up in order to experience a much bigger fall. In contrast, historical cost accounting does not represent current market value, but summarizes past transactions instead. Mark-to-market accounting can become highly volatile if market prices fluctuate greatly or change unpredictably. Market participants may claim a number of specific instances when this is the case, including inability to value the future income and expenses both accurately and collectively, often due to unreliable information, or over-optimistic or over-pessimistic expectations of cash flow and earnings.

The point with marking-to-market is to present the value of the asset as if the asset had been realized at the point of reporting (financial statement date). The question begs itself however, whether this is the "value" that should be recorded for all purposes, or only for information purposes to investors.

The concept of "value" for different purposes:

a) From an information point of view:

It is very clear that marking-to-market increases the information to investors that want to trade in shares in the relevant company. These investors are dependent on the most up-to-date information about the company in order not to forego value, both as a buyer and as a seller. The reason for this is that the buyer and the seller has a need

to split the unrealized value of assets between them. The mark-to-market accounting thus introduces points in time when assets are "divided" between existing owners and future owners.

b) From an earnings point of view:

It is just as clear that that unrealized gains (or losses) from marking-to-market have not been "earned" at the financial statement date. The value change is still unrealized and can be very different in the future, dependent on the time to realization and the volatility of the market. From an earnings-perspective it thus seems clear that unrealized gains should possibly be referred to as an adjustment in the balance sheet only, not affecting earnings in the profit & loss statement part of the financial statement, or as a minimum that unrealized gains/losses are clearly presented as a separate item preferably not part of operating items. This would enhance the status as information, and not as "earnings".

c) From a cash flow point of view:

"Dividing" unrealized gains and losses for information purposes to buyers and sellers of shares is clearly not affecting the company. Taking unrealized gains or losses to earnings is affecting the company, but only in a limited way. However, if mark-to-market is able to affect cash flows going out of the company, then one has crossed another threshold. Possible cash flows effects may be taxes (if there are no exemptions for unrealized gains and losses), bonuses to employees (particularly in the finance industry), dividends to shareholders and capital requirements (again particularly in the finance industry). If one let mark-to-market affect cash flows, then one is actually redistributing value from (gains) or to (losses) future shareholders to (gains) or from (losses) tax authorities, employees, existing shareholders and new investors. However, this is contrary to what is happening between the buying and the selling shareholder. If the buying shareholder is already paying a higher price based on unrealized gains attributed to the period when the selling shareholder held the shares, then the buying shareholder would expect to be allowed the economic outcome when unrealized gains are turned into realized gains in the next accounting period. If taxes, bonuses, dividends or capital requirements are affected in the financial statement period of the seller, this is then to the detriment of the buying shareholder. Information needs related to unrealized gains (or losses) are thus contrary to cash flow needs, which is a good argument for keeping unrealized gains (or losses) as part of a balance sheet adjustment only. Keeping it as a balance sheet adjustment enhances the status of investor information only.

d) From a going concern point of view:

A further viewpoint on "value" is the "going concern" assumption in the financial statement. This is very much aligned with the cash flow (or liquidity) viewpoint: There is no reason to let unrealized gains (or losses) overly affect the financial statement earnings (profit & loss) or status (balance sheet) from a going concern perspective. The reason is simply that it is unrealized, and that the future set of circumstances with its future set of participants when it becomes realized is unknown at the date of the financial statement reporting when it is unrealized. The going concern perspective actually works in the direction of historical cost accounting, unaffected by mark-to-market accounting, or at the very least only affected by the previous lower of historical cost and market value. If one should leave the prudence principle behind, then historical cost accounting seems to be the fundamental principle that ought to be behind a going concern thinking. This would disallow prudence, but would also disallow overconfidence. This thus also points in the direction of having unrealized gains (and losses) as a balance sheet adjustment only, and actually making sure that it is recognized in a separate part of the equity, or even below the line. This in order for unrealized gains (or losses) to have minimum impact on the financial statement reporting and its inherent connection to dividends.

<sup>12</sup> «Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting», 2008, Securities and Exchange Commission; <https://www.sec.gov/news/studies/2008/marktomarket123008.pdf>

<sup>13</sup> Cullen Roche (2014), "The Concept of "Value" is Dynamic", <http://www.pragcap.com/the-concept-of-value-is-dynamic/> [extracted January 2017]

## 4. The mark-to-market concepts

### 4.1 Mark-to-market accounting

Mark-to-market accounting is also called fair value accounting. Wikipedia<sup>14</sup> has one of the most concise overviews of the history and development of mark-to-market accounting for non-professionals:

*“The practice of mark to market as an accounting practice first developed among traders on futures exchanges during the 20th century. It was not until the 1980s that the practice spread to major banks and corporations, and beginning during the 1990s, mark-to-market accounting began to result in scandals.*

*To understand the original practice, consider that a futures trader, when beginning an account (or “position”), deposits money, termed a “margin”, with the exchange. This is intended to protect the exchange against loss. At the end of every trading day, the contract is marked to its present market value. If the trader is on the winning side of a deal, his contract has increased in value that day, and the exchange pays this profit into his account. On the other hand, if the market price of his contract has decreased, the exchange charges his account that holds the deposited margin. If the balance of this account becomes less than the deposit required to maintain the account, the trader must immediately pay additional margin into the account in order to maintain the account (a “margin call”). (The Chicago Mercantile Exchange, doing even more, marks positions to market twice a day, at 10:00 am and 2:00 pm).*

*Over-the-counter (OTC) derivatives on the other hand are formula-based financial contracts between buyers and sellers, and are not traded on exchanges, so their market prices are not established by any active, regulated market trading. Market values are, therefore, not objectively determined or available readily (purchasers of derivative contracts are typically furnished with computer programs which compute market values based upon data input from the active markets and the provided formulas). During their early development, OTC derivatives such as interest rate swaps were not marked to market frequently. Deals were monitored on a quarterly or annual basis, when gains or losses would be acknowledged or payments exchanged.*

*As the practice of marking to market became more used by corporations and banks, some of them seem to have discovered that this was a tempting way to commit accounting fraud. That was particularly the case when the market price could not be determined objectively (because there was no real day-to-day market available or the asset value was derived from other traded commodities, such as crude oil futures), so assets were being “marked to model” in a hypothetical or synthetic manner using estimated valuations derived from financial modeling. Sometimes marking to market was used, using financial models, in a manipulative manner to achieve spurious valuations. The most infamous use of mark-to-market in this way was the Enron scandal.*

*After the Enron scandal, changes were made to the mark to market method by the Sarbanes–Oxley Act during 2002. The Act affected mark to market by forcing companies to implement stricter accounting standards. The stricter standards included more explicit financial reporting, stronger internal controls to prevent and identify fraud, and auditor independence. In addition, the Public Company Accounting Oversight Board (PCAOB) was created by the Securities and Exchange Commission (SEC) for the purpose of overseeing audits. The Sarbanes–Oxley Act also implemented harsher penalties for fraud, such as enhanced prison sentences and fines for committing fraud. Although the law was created*

<sup>14</sup> Disclaimer: professionals should look directly to the US GAAP or IFRS guidelines, or literature covering these topics in more depth – the intention here is to give the uninformed reader a broad, but short insight without going into the particulars

*to restore investor confidence, the cost of implementing the regulations caused many companies to avoid registering on stock exchanges in the United States.*

*Internal Revenue Code Section 475 contains the mark to market accounting method rule for taxation. Section 475 provides that qualified securities dealers who elect mark to market treatment shall recognize gain or loss as if the property were sold for its fair market value on the last business day of the year, and any gain or loss shall be taken into account for that year. The section also provides that dealers in commodities can elect mark to market treatment for any commodity (or their derivatives) which is actively traded (i.e., for which there is an established financial market that provides a reasonable basis to determine fair market value by disseminating price quotes from broker/dealers or actual prices from recent transactions)”.*<sup>15</sup>

Following this overview is an overview of key accounting standards relevant for mark-to-market or fair value accounting:

- FAS 115 → accounting and reporting of investments in equity securities that have readily determinable fair values and for all investments in debt securities
- FAS 124 → requires the same for not-for-profit organizations as FAS 115 requires from businesses
- FAS 157 → presents a fair value hierarchy used to classify the source information used in fair value measurements into marked-based or non-market based and hence presents 3 levels of confidence with which the fair value accounting is based. The standard defines fair value as “The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date”. We shall see below that this definition can be abused by multinationals.
- IASB 13 Fair Value Measurements → has the same type of guidance as US GAAP

Wikipedia<sup>16</sup> continues, looking at the consequences of the definition:

*“The definition as outlined does introduce certain important differences.*

*First, it is based on the exit price (for an asset, the price at which it would be sold (bid price)) rather than an entry price (for an asset, the price at which it would be bought (ask price)), regardless of whether the entity plans to hold the asset for investment or resell it later.*

*Second, FAS 157 emphasizes that fair value is market-based rather than entity-specific. Thus, the optimism that often characterizes an asset acquirer must be replaced with the skepticism that typically characterizes a dispassionate, risk-averse buyer”.*<sup>17</sup>

Later, a third point has entered the picture: In April 2009, the guideline was amended with new guidelines that “would allow for the valuation to be based on a price that would be received in an orderly market rather than a forced liquidation”. This was as a direct consequence of the negative adjustments that companies had to take resulting from the 2008 financial crisis.

The takeaway is that for accounting purposes it is possible to use mark-to-market when you think the market is orderly (which is typical when things go up) while you are allowed to deviate from mark-to-market, keeping higher pricing, when the market is not orderly (which is typical when things go down). **Not only are you allowed to use higher prices when things go well, you are also allowed to disregard when things are going bad. This is the exact opposite of the previous conservative prudence principle in accounting.**

<sup>15</sup> [https://en.wikipedia.org/wiki/Mark-to-market\\_accounting](https://en.wikipedia.org/wiki/Mark-to-market_accounting), subsection “History and development” (extracted on January 2017)

<sup>16</sup> Disclaimer: professionals should look directly to the US GAAP or IFRS guidelines, or literature covering these topics in more depth – the intention here is to give the uninformed reader a broad, but short insight without going into the particulars

<sup>17</sup> [https://en.wikipedia.org/wiki/Mark-to-market\\_accounting](https://en.wikipedia.org/wiki/Mark-to-market_accounting), subsection FAS 157 / Accounting Standards Codification Topic 820 (extracted January 2017)



The consequence of the rules seen together is that companies are less at risk of liquidation when something minor happens to the pricing, but are more at risk of liquidation when prices are falling quickly to new, lower long-term levels. The accounting rules thus do not protect companies (or their investors) from increased risk, they only ensure that whatever happens on the bad side of business, it will happen suddenly and it will impact everybody, creating a self-propelling downward spiral of cause (lower price) and effect (lower values).

**The current accounting framework and guidelines are thus part of creating problems in the world economy, not help solving them. The effect of the accounting rules on the numbers in the financial statements, whether it is in the profit and loss account or in the equity in the balance sheet, must thus be changed so that companies are not bled for unrealized profits through dividending too much of their funding to investors. This can be done by changing the way mark-to-market margins are treated in the accounts.**

#### 4.2 Mark-to-market pricing

The combination of exit price and orderly market effectively removes the second, more skeptical approach of a "dispassionate, risk-averse buyer". The reason is that all trading is done on the margin, which means it is the buyer(s) that is willing to pay the most, not in the long run, but in the short run, that determines the exit price. The market mechanism has always been there, however, the difference between the two situations is clear:

- a seller looking at what buyers are willing to pay in the long run will make the seller adjust his or her capacity or what to invest in up or down
- a seller looking at what buyers are willing to pay in the short run will make the seller adjust his or her price up or down and necessary capacity adjustments are harder to get as investors know less about their potential future revenue, hence risk increases and rate of return demands increases

The first situation creates stable growth and predicable returns, while the other situation introduces huge volatility and unpredictable returns, increased risk and unpredictable investments ... and potential bubble economics.

Take as an example the hotel market in the capital of Norway, Oslo: on days where hotels expect many guests, you will find very few reasonably priced rooms. That means that the same room that one day was sold for NOK 995 another day is sold for NOK 1995, a 100+% increase. That means that the quality and (for other types of goods or services) the quantity delivered does not matter anymore, only how many that are seeking the same good or service, i.e. the demand relative to the supply. This means that the customer loses the connection between perceived value in return for what he or she pays.

In markets that are very thin, only a slight change in the demand may create massive changes in the price. In the hotel example, it is a very different situation whether it is the NOK 995-market that is "an orderly market" or it is the NOK 1995-market. If the bottom were to go out of the hotel market in Oslo, and prices went generally down to NOK 995, then a pricing of a hotel at NOK 1995 per room per night would give a totally different and possibly misleading value. What is regarded as a temporary change from orderly market can in the next instant seem like a permanent shift in demand vs supply. It all depends on the viewpoint and the viewer.

This example is not an example of mark-to-market accounting, as hotel bed rooms are not "accounted for" except as revenue when sold, but it is a very good example of how daily shifts in the demand for a commodity, which cannot change its capacity on a daily basis, can lead to "mark-to-market" pricing of the commodity. This is not bad, but it is a very different pricing strategy than previously. Let us explain.

Pricing was previously such that the price for a hotel room was based on the

location, the brand, the quality of the hotel, the quality of the room, the room's share of fixed cost of staff etc. Rooms were sold at a standard rate, and based on the standard rate, a customer could very much anticipate the quality he or she would get when checking in. In periods with less customers, a number of rooms were typically rebated in order to attract customers with a travel need, but with a lower willingness to pay for a room. This strategy only works for certain hotel rooms, though, a fact that is explained through the mechanism of price elasticity.

Price elasticity measures the change in demand to changes in price for a particular good. For example, if the demand for a good increases 100% when the price is decreased 50%, then the price elasticity of demand would be  $100\% / 50\% = 2.0$  (% change in sold goods over % change in price). If the price elasticity

- is equal to 0, demand does not change when prices change (perfectly inelastic → everybody that needs a product already buys it).
- is between 0 and 1 indicates that demand is inelastic (this occurs when the percent change in demand is less than the percent change in price).
- is equal to 1, indicates demand is unit elastic (the percent change in demand is equal to the percent change in price).
- if the value is greater than 1, demand is affected more than the price change (perfectly elastic → it is possible that the reduction in price will be weighted up by the increased sale). The term "perfectly elastic" is slightly misleading, as the unit change needs to be larger by a degree than the price change in order to ensure the same revenue as the original price set.

"Same-revenue" elasticity example:

Assume that 100 units are sold at the price of 100, giving rise to a revenue of 10000. What change in units will lead to the same revenue when prices change?

10% price change:	$10000/90 = +11,11$ units/11,11% → 11,11/10	= 1,11 elasticity
20% price change:	$10000/80 = +25$ units/25% → 25/20	= 1,25 elasticity
30% price change:	$10000/70 = +42,86$ units/42,86% → 42,86/30	= 1,43 elasticity
40% price change:	$10000/60 = +66,67$ units/66,67% → 66,67/40	= 1,67 elasticity
50% price change:	$10000/50 = +100$ units/100% → 100/50	= 2,00 elasticity
60% price change:	$10000/40 = +150$ units/150% → 150/60	= 2,50 elasticity
70% price change:	$10000/30 = +233,33$ u/233,33% → 233,33/70	= 3,33 elasticity
80% price change:	$10000/20 = +400$ units/400% → 400/80	= 5,00 elasticity
90% price change:	$10000/10 = +900$ units/900% → 900/90	= 10,0 elasticity

As one can see, the elasticity needs to be higher the further the price is lowered in order for the revenue to be the same. This is the reason why the price for inelastic goods (and even elastic goods) is usually set higher if demand is determined to be price inelastic. Businesses thus evaluate price elasticity before setting the original price, as they will not sell more to compensate for the individual revenue loss if the price is set lower. Demand is usually more elastic if there are close substitutes and vice versa. Necessities usually tend to be more inelastic while luxuries tend to be more elastic.

In the hotel example, the demand for standard hotel rooms is usually inelastic, and the price was usually set at the highest price that one assumed the market generally accepted. Luxury rooms were more elastic, and tended to be more rebated based on demand. This was the situation until recently. With the introduction of booking websites that compares the market continuously, there was suddenly a market that hotels could compare with, and the hotel community became much more intertwined than before. Hotel agreements and bookings via travel agencies were fast replaced by online booking via booking websites. This has introduced mark-to-market pricing in the hotel segment, where hotels are not only rebating hotels, but are also pricing rooms at higher prices on a daily basis based on expected demand. This means that hotels use "the opposite end"

of elasticity, i.e. if there are periods where it is expected that there is a high demand for hotels rooms compared to capacity, the hotels will price up their rooms in order to take advantage of the expected inelastic demand in those periods. This is how mark-to-market pricing works also in other, less accessible markets.

Mark-to-market pricing has entered more and more industries as “markets” and market places have been created. This has not the least been the case in the global oil and gas industry. While the oil and gas industry was expanding from 2004 through 2008, the oil supply industry was rising its prices on oil & gas equipment as the market was viewed as rather inelastic. A well, a platform or a pipeline needed the equipment, and as demand outgrew supply, the suppliers could essentially set the price almost as high as they desired as the outcome of not drilling a well or building/repairing/maintaining a platform resulted in an unacceptable income loss for the oil and gas companies. In a certain period between 2004 and 2008 there was an almost 100% match between the increase in rig rates for movable rigs and the increase in the price for downhole services. When analysts expected an increase in rig rates, all services relating to drilling a well increased, surprising everybody with a very high price increase for rather mundane services because the other services took their mark-to-market pricing either from the oil price directly or from the derived market for movable rigs.<sup>18</sup>

The underlying mechanism of the mark-to-market pricing is that suppliers view the rise in the price, for example the oil price in the above example, as a sustainable increase and thus a price increase that will hold the test of time, i.e. that the price is rather inelastic downward, and suppliers increase their prices accordingly. This is however a very uncertain conclusion, because (1) prices fluctuate as a result of many different reasons on both the demand and supply side and (2) unpredictably increasing prices from sub-suppliers that increase the cost of a commodity is adding another layer of uncertainty with respect to the sustainability of a product or service and its market pricing.

**Even the above mechanism would not demand any action if all actions and reactions in mark-to-market pricing were happening in countries with “normal” taxation. Mark-to-market pricing is not a bad principle in itself, as any changes in the pricing of any components will result in a redistribution of the overall profits in a product or service chain among the involved parties. This will change which company is being taxed, but will, all things equal, not change the overall taxation. It is when large differences in tax level is introduced into the equation and internal transactions between subsidiaries in tax havens and subsidiaries in “normal” tax jurisdictions are using mark-to-market principles that problems arise for the collection of taxes.**

We are back to Cullen’s point: none of us really knows what [value] is at any given time. This fact makes it increasingly difficult to tax transactions worldwide, and new mechanisms need to be enacted and used in order to secure a fair taxation for society.

But if none of us really knows what value is at any given time, how can one then apply FAS 157 or IASB 13 on a consistent basis across industries and companies? The problem is that we take the current information, extend it indefinitely into the future, and value the asset based on that market assumption. This is wrong: the fact that you know the value of a share at December 31st 2017 does not mean that you know the value of the same share March 30th 2018. What is wrong is the combination of a piece of information at a specific point in time, here December 31st 2017, with the assumption that you can extend that information into the future. For totally liquid assets like cash and bank accounts, yes, because of the turnover of cash and bank deposits is extremely high, but for other assets it becomes more and more ludicrous the more assets fall within the mark-to-market or “fair value” accounting.

<sup>18</sup> Unpublished analyses by the author in 2010.

As one can see, it does not matter whether one has direct observations of transactions (e.g. quoted prices) as long as the extension of those prices until the point of realization is an assumption in itself. This is not part of the hierarchy, which holds that quoted prices offers superior reliability compared to, for example, projected cash flows. However, that is only at that particular time as you have the observed transactions. Immediately when you start to assume that the future value is the same as the current value observed through transactions, it is impossible to ignore the extension-assumption.

Mark-to-market accounting accounts for values using current observations at the closing of the accounts, but does not take into account the fact that these values actually make a forward-looking statement in itself:

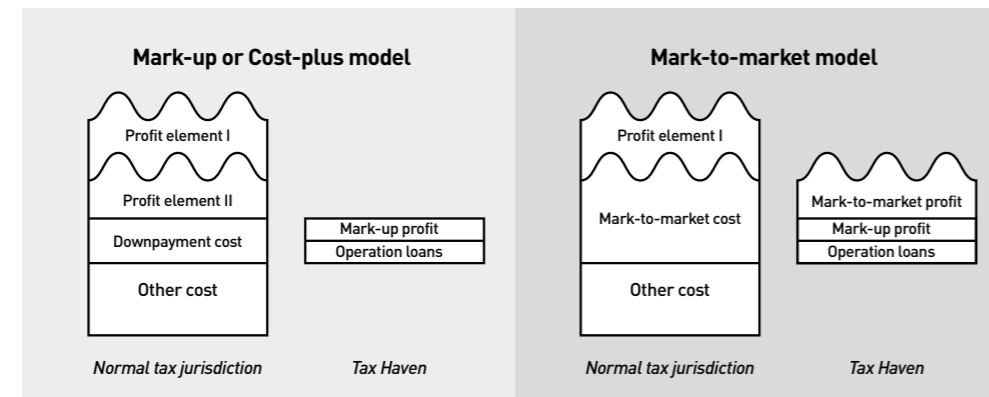
- If the value of an asset is \$100 at purchase, \$150 at closing and \$200 at point of realization, then for the purpose of accounting, 50% of the value increase has been taken in the accounting period when one operated with an unrealized value (possibly based on observed prices of similar assets at the time)
- However, if the value of an asset is \$100 at purchase, \$150 at closing and \$150 at point of realization, then for the purpose of accounting, 100% of the value increase has been taken in the accounting period when one operated with an unrealized value (possibly based on observed prices of similar assets at the time). That means that there is no value left to be “realized” in the period when the asset is actually realized, and this means that there is no matching of revenue to the period when the actual activity connected to realization goes on. That means that there are costs, without any matching revenue, a fact that challenges the matching principle.
- If the value on the other hand is \$100 at purchase, \$150 at closing and \$75 at point of realization, then for the purpose of accounting, value has been taken in the accounting period when one operated with an unrealized value (possibly based on observed prices of similar assets at the time) while in reality there was a latent loss. Not taking this latent loss in the current accounting period means that one is presenting too good accounts currently and deflates the value of future accounting periods.

There is really no difference between assets that are traded frequently versus those that are traded more infrequently. The main difference is the number of data points available for setting the correct pricing up to the closing point, but the process in setting the future value is not very different. In the absence of future market information, which is almost always the case when it comes to the product or service itself, the entity is allowed to use its own assumptions, including mark-to-market products to a market that has future market information, including the ability to not taking into account falling prices if these are considered as not part of an orderly market. The marking down of asset prices that happened in 2007 and 2008, for example of mortgage-backed securities, may not need to happen in the future due to the ability of companies to take into account the possibility of a non-orderly market in its valuation.

### 4.3 Mark-to-market contracts

It is when it comes to contracts that the mark-to-market principles come to full use. Particularly contracts for movable assets like ships and rigs in the oil and gas industry are prone to the use of mark-to-market contracts, but all long-term contracts can in principle fall under the mark-to-market principles. This is where the roller-coaster mechanism comes into full effect.

Figure 1 Mark-up model versus mark-to-market model



Prior to the introduction of mark-to-market pricing of contracts, it was normal to have models based on mark-up, which essentially is a profit margin on a cost-base (where there is a significant equity element) or a mark-up on the funding needed to operate loans (where there is a low equity element). In figure 1 this is called a Mark-up or a Cost-plus model.

Contrast this with the mark-to-market model. In a mark-up model there is only a low, stable profit-element that goes in as down-payment cost in the normal tax jurisdiction (invoiced from the tax haven). The rest of the profit is left in the normal tax jurisdiction. In the mark-to-market model however, there is an additional, varying mark-to-market profit element that is added on top of the normal mark-up profit (there is normally a lower boundary for how low the profit in the tax haven entity can go). This mark-to-market profit is effectively the profit element II in the normal tax jurisdiction that is moved to the tax haven. This profit element can become very large if the pricing becomes very high compared to the price the "normal" profit element in the tax haven is calculated based upon (the minimum required benefit).

A mark-to-market contract thus has the inherent ability to move, untaxed, a substantial part of the profit in a normal tax jurisdiction entity over to a tax haven entity. There is no "event" or other reason for this increased transfer of untaxed funds from the normal tax jurisdiction to the tax haven, only a shift in pricing model and the fact that most countries accept this shift of pricing model as bona fide for tax purposes. The argument often presented for moving from one pricing model to the other is to reduce the cost in low-price periods, ensuring that the normal tax jurisdiction does not enter a loss situation in low price periods. However, the design of the contracts is such that the price normally has to go very low before the cost becomes as low as it would have been with a mark-up profit in the tax haven. In all but the very lowest priced years there will thus be an increased transfer of untaxed funds from the normal tax jurisdiction entity to the tax haven entity.

The above was an example from a company which has untaxed funds transferred from the normal tax jurisdiction entity to a tax haven entity. However, there is no difference if there are other types of contracts used as long as they are marked-to-market. A derivative contract which is marked-to-market where the losing end is in the normal tax jurisdiction and the winning end is in the tax haven function in the same way.<sup>19</sup> The mechanism for handling derivative contracts is different however from how to handle mark-to-market

contract which does not include derivatives. Derivative elements need to be separated from the regular business (including mark-to-market contracts) and needs to be taxed using separate mechanisms as described in the report Protection from derivative abuse.<sup>20</sup> When derivative elements are taken away, a proper taxation model can be chosen depending on the business model chosen for a company. This is the theme for the next chapter.

## 5. Taxation models for the economy of one company

The taxation model for a company is the same although the business model can vary significantly. The taxation model that most countries have is designed to tax companies with all its activities inside the country except the import and export of goods and services from/to other jurisdictions with approximately the same tax rate as the country in question.

This taxation model was developed as a response to the post-WW2 rebuilding of amongst other Europe and East- and Southeast-Asia.

In the meantime, there are developed business models and mechanisms that were not thought of when the current taxation models were designed. It does not matter that most tax systems in the countries have undergone changes many times. This has fixed larger or smaller issues with the tax systems, but has not looked at the overall taxation model for companies. Digitalization and trans-border transactions as well as the current focus on tax avoidance and tax evasion that has become wide-spread the last 30 years or so. All of this will challenge governments to take into account more taxation models.

Here are some examples of taxation models fitted to the economy of any given situation:

- Fully national: Traditional company with imports and exports, not part of a multinational company

This is where the traditional taxation model fits best: profit taxes combined with VAT and employment taxes and property taxes:

- Profit taxes because the tax authorities have the ability to check both the revenue side and the cost side of the business
- VAT because it is an end-consumer tax inside the country
- Employment taxes because this is how health care and pensions are funded
- Property taxes because this is how services to property is funded

- Partly national: Subsidiary of a multinational company

The only variation from the fully national company is the connection to the multinational company with costs coming from the multinational system. In order to secure that the subsidiary competes on a fair level with fully national companies it is only necessary to ensure that inequalities in the tax system are adjusted for. This can be done by utilizing Reverse Tax Credit. The tax model for such companies thus becomes → profit taxes combined with VAT, employment taxes, property taxes and Reverse Tax Credit on cross-border costs within the multinational system:

- Profit taxes because the tax authorities have the ability to check both the revenue side and the cost side of the business, except cross-border transactions within the multinational
- Reverse Tax Credit<sup>21</sup> ensure that the multinational company does not get higher tax deduction for its costs than it has taxation of its worldwide profits
- VAT because it is an end-consumer tax inside the country
- Employment taxes because this is how health care and pensions are funded
- Property taxes because this is how services to property is funded

<sup>19</sup> «Protection against derivatives abuse»/PWYP Norway/ <http://www.publishwhatyoupay.no/publications>, December 2011 [extract May 2017]

<sup>20</sup> Same

<sup>21</sup> "Taking away the tax effect of Tax Havens. Cross border taxation methods and Reverse Tax Credit" / PWYP Norway/<http://www.publishwhatyoupay.no/publications>, May 2017 [extract May 2017]

As one sees, it is extremely easy to ensure that the multinational company is on a level playing field with the fully national companies. The only change in the taxation model needed is to introduce a cost deduction for internal cross-border transactions that match the overall taxation of the multinational company.

c. Only “employees” national: Delivery of services inside the country is paid abroad

This is the AirBnB and Uber of the world. Local people offer services, but payment from the customer goes out of the country with a return payment to the person offering the service in-country. Here a radically different taxation model is needed, as the people rendering the service do not consider themselves employees, but are more like self-employed persons. This requires a profound change to the taxation model to ensure the same services are paid for:

- Profit taxes do not work anymore as (1) the tax authorities only have the ability to check the revenue side, not the cost side and (2) the cost side is quite small as the whole payment operation is digitalized.
- Withholding taxes (designed the correct way) and VAT can be added to the amount that is going to the payment service abroad. Only the original amount is being paid by the bank or credit card service to the payment service abroad, the withholding tax and VAT is being paid at the same time as the transaction to the tax authorities. This allows for the payment service abroad to be released from any further tax responsibilities.

The payment service abroad (AirBnB, Uber or others) returns a payment to the person having done the service in-country:

- Employers share of employment taxes to cover health care or pensions must be funded out of the payment the person gets from the payment service abroad, as well as that the person has to pay income taxes on the net amount after employers share of employment taxes. The person will then be on par with other employees. This also ensures that no person is interested in rendering the service unless they actually are able to cover this cost and sit left with a satisfactory amount. This thus also ensures that the service is priced on par with the services they replace from companies (hotels and taxis in the example of AirBnB and Uber).
- Property taxes are paid by the people rendering the services depending on which property taxes are enacted in the municipality where the person lives

This exemplified taxation model would have fully taxed the foreign company for its transactions in-country as the payment leaves the country, while it is up to the taxation model whether the person in-country has all the taxes deducted from the payment before it reaches his/her account, or whether they fill in a tax return each year and pay accordingly. At any rate, there is no problem having the bank or credit agency send a report on how much has been paid by the payment service abroad to each in-country person for taxation purposes. This could be held up against and compared with reports coming from the payment service abroad itself. The full taxation would be on par with what companies would have to pay: withholding tax replaces profit tax, VAT is paid as normal, and the “employee” is responsible for all employment and property taxes.

d. No national elements: Delivery of goods and services as well as payment abroad

In this situation there are no employees in-country and there is no property in-country. The taxation model would thus be like the reverse side of a) above for payments from companies in-country (there is no link to the company abroad), as this would be ordinary imports or like b) above when the import is from an affiliated company. There would be no taxation of the company abroad. VAT is paid on the import upon import-declaration.

However, for import directly by citizens the taxation model for the company abroad would be like alternative c) above, with the exception of employee taxes and property taxes:

- Profit taxes do not work here either as (1) the tax authorities only have the ability to check the revenue side, not the cost side and (2) the cost side can vary quite a lot depending on the product or type of service delivered from abroad.
- Withholding taxes (designed the correct way)<sup>23</sup> and VAT can be added to the amount that is being paid abroad. Only the original amount is being paid by the bank or credit card service to the receiving company abroad, the withholding tax and VAT is being paid at the same time as the transaction to the tax authorities. This allows for the company abroad to be released from any further tax responsibilities.
- A proxy reduction in the withholding tax can be done for non-digitalized goods and services imported where there is obviously a cost element in the production of the good or service.

e. Special attention: Derivative contracts

Derivative contracts and elements of such in other contracts need to be organized so that they do not affect the taxation of ordinary business results. In the report Protection against derivate abuse<sup>24</sup> there are described two methods on how to eliminate the tax effect of derivatives from the taxation of business results:

“This report shows that there are two general methods that can be used to avoid derivatives abuse. The separation method is the one recommended in this report as this method most closely resembles the way most countries have organized their tax systems. The separation method essentially suggests that countries can unilaterally single out use of financial instruments in a separate tax base from the extractive income tax base. This means that gains are taxed based on the general tax rate in the country and losses can be used against current gains or carried forward and taken against future gains. Companies using true hedging, i.e. they have neutral expectations or they are expecting gains in the long run, will not be harmed and can continue using derivatives while the companies that are amassing losses in a country would find that they have no tax shield for the abuse of derivatives anymore.”

The separation method (or the substitution method) needs to be applied for derivatives before application of any of the taxation models a) through d) above in order for the taxation models to give the desired result.

Mark-to-market contracts and pricing which is the particular target of this report falls within section b) and section e). However, as shown in this report, there are also alternatives that should be considered if taxation is not the main object, but rather protection of investor money, i.e. ensuring that the roller-coaster effects of mark-to-market do not increase the risk of companies going bankrupt. See chapter 9 below for more on this particular point.

When it comes to the oil and gas industry directly, we used the following example in the report “A guide to optimal resource taxation – the case for windfall taxes” of how mark-to-market can transfer money out of a country (falls within section b) above):

*“If a company hires an FPSO from an affiliated company in another country, most tax systems would accept that the rate is a “mark-to-market” rate that binds the rate to fluctuations in the oil price. The company would argue that the oil-indexed rate is good because it means that the rate (and thus the cost) goes down when oil prices go down, and it is only fair that the rate (and thus the cost) goes up when oil prices go up again. What a company is achieving with such an agreement is that it can transfer non-taxed profits out of the tax jurisdiction without tax administrations noticing in the beginning, and when they do notice, the previous year’s treatment has usually created a precedence that is difficult to eliminate. The economic effect is that most of the oil & gas revenues are removed from taxation in the tax jurisdiction*

<sup>23</sup> See Calibrating Withholding Taxes, page 7 in “Taking away the tax effect of Tax Havens. Cross border taxation methods and Reverse Tax Credit”/ PWYP Norway/ <http://www.publishwhatyoupay.no/publications>, May 2017 (extract May 2017)

<sup>24</sup> “Protection against derivatives abuse”/ PWYP Norway/<http://www.publishwhatyoupay.no/publications>, December 2011 (extracted May 2017)

*and only a smaller revenue on top of the oil-indexed FPSO-contract is left to tax. It is quite easy to avoid such situations as it is easy to codify in the tax law that FPSOs and other vessels utilized for running the installations on fields in a country need to be owned within the country, or, if owned outside the country, that the company is only allowed a certain profit, for example 10%, on the FPSO and no oil-indexation of the rate is accepted.”*

When looking at this in total, extractive industry companies falling under section b) and e) would be under the following regulations if the loopholes are taken out of the tax systems in the countries in question:

#### 1. Revenue

If derivatives are placed in a separate tax basket, away from being taxed together with oil & gas or mining revenues, then the taxation would be as follows:

- Oil & gas and mining revenues would be taxed based on volume, world market price per unit and the degree of finish. There would be no leakage
- Derivative profits or losses and equivalent contracts would be taxed separately, and only to the extent that there are profits to take losses against would there be taxation. This means that there is no incentive to amass derivative losses in a country – on the opposite, companies have the incentive to minimize losses. Taxation of profits would be unaffected by tax leakages from revenues. In this model it should not be accepted that revenues could be invoiced from or collected in other countries than the production country.

#### 2. Cost

Cross-border cost transactions to be deducted in a tax system have their counter-party revenue in other tax jurisdictions. How much the tax rate goes down in a multinational company is determined by the spread between the tax rate costs are deducted in versus the tax rate revenues are taxed by.

By having cross-border transactions, including mark-to-market transactions, be deducted at the average tax rate of the multinational company (stated in their financial statement), then this would alleviate the tax reductions the multinational company has achieved by moving the revenue side of transactions into low-tax or no-tax jurisdictions.

Taxation of profits would be unaffected by tax leakages from costs.

Taxing revenues and costs as described above would put companies falling into section b) and e), typically oil & gas, mining and other subsidiaries of multinationals, at the same level as national companies. This would create a level playing field between national and international companies.

We will now continue with the particulars of mark-to-market accounting and its implications, because there are more that can be done with mark-to-market accounting than just taking away its tax effect.

## 6. The global economy

In chapter 1 we introduced the main message and the main warning of this report: *“mark-to-market principles introduce roller-coaster behavior in the global economy that is more and more difficult to handle for every time they occur because adjustments introduced after each turn ensure that every crash risks getting bigger and more spectacular.”*

Again we emphasize that mark-to-market accounting did not cause the financial crisis in 2008, but it accelerated the effects. However, one of the reasons mark-to-market accounting did not have a larger accelerating effect back in 2008 was due to that the crisis mainly hit financial institutions that were bailed out by government. If the majority of the crisis had hit industrial companies with mark-to-market assets abroad, a bailout would have been less likely and the repercussions could have been more severe with respect to failure of companies and employment.

Do we find independent studies which support the claim that mark-to-market accounting has this roller-coaster effect? Yes and no. In the aftermath of the 2008-2009 financial crisis there came out a lot of studies which ended in different conclusions. For every study it is possible to find a counter-study, so these studies are mostly worthless. There is thus not much help in most of the studies provided on the 2008-2009 financial crisis. One institution's study stand out, and that is the SEC study<sup>25</sup> that was published in 2009 and which came to amongst other the following conclusion:

*“From the sample of financial institutions studied in this section of the study, the Staff observed that fair value measurements were used to measure a minority of the assets (45%) and liabilities (15%) included in financial institutions’ balance sheets. The percentage of assets for which changes in fair value affected income was significantly less (25%), reflecting the mark-to-market requirements for trading and derivative investments. **However, for those same financial institutions, the Staff observed that fair value measurements did significantly affect financial institutions’ reported income.”***

According to the SEC-study 25% of the assets had changes in fair value that affected income, and that for the affected institutions the fair value measurements significantly affected the financial institutions reported income. This is no minor point as we are talking about some of the world's largest financial institutions as part of the sample.

In October 2012, Nemanja Stanistic, Snezana Popovic Avric, Vule Mizdrakovic and Marina Djenic published an extensive post-financial crisis study<sup>26</sup> that covered the entire period 1881-2012, and their conclusion was:

*“We reaffirm that ... (w)hile the mark-to market-rule does not cause financial crises on its own, it does magnify the underlying market volatility caused by the positive feedback mechanism inherent in efficient market economies. Mark-to-market accounting does not only reveal volatility, it is also generat[ing] it.”*

They also came with a recommendation which is close to what this report suggests, but which seems less achievable than the suggestion in this report, and which also fails to take into account the possible tax effects of mark-to-market accounting:

*“... although we advise against mark-to-market implementation in certain situations, all of the above mentioned arguments against mark-to-market method cannot be automatically translated into arguments for historical cost accounting or any other methods. Therefore, we propose that official financial statements should be disclosed at historical value, however we suggest that companies should provide additional information for stakeholders using mark-to-market method for certain assets which value could be confirmed on market without subjective premises. In that manner, greater transparency would be obtained, without the negative effects of implementation of mark-to-market accounting.”*

<sup>25</sup> “Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting”, US Securities and Exchange Commission (SEC), 2009

<sup>26</sup> “Mark to Market Accounting as a Magnifier of Financial Crises”, N. Stanistic, S.P. Avric, V. Mizdrakovic and M. Djenic, Financial Aspects of Recent Trends in the Global Economy, Vol II, pp. 110-126, R. Mirdala, ed., ASERS Publishing, 2013

It is out of the question to go back to a situation where financial statements are presented at historical cost or other methods. This is also confirmed in the feedback the SEC received as a background for their study. However, in this report we recommend

- (1) from an earnings perspective that unrealized gains and losses should possibly be an adjustment in the balance sheet only, not affecting earnings in the profit & loss statement part of the financial statement, or as a minimum that unrealized gains/losses are clearly presented as a separate item preferably not part of operating items or realized financial items. This would enhance the status as information, and not as "earnings".
- (2) from a cash point of view that unrealized gains and losses are not allowed to have cash effects. If one let mark-to-market affect cash flows, then one is actually redistributing value from (gains) or to (losses) future shareholders to (gains) or from (losses) tax authorities, employees, existing shareholders and new investors. Information needs related to unrealized gains (or losses) are thus contrary to cash flow needs, which is a good argument for keeping unrealized gains (or losses) as part of a balance sheet adjustment only. Keeping it as a balance sheet adjustment enhances the status of investor information only.
- (3) a going concern perspective is very much aligned with the cash flow (or liquidity) viewpoint: There is no reason to let unrealized gains (or losses) overly affect the financial statement earnings (profit & loss) or status (balance sheet) from a going concern perspective. This thus also points in the direction of having unrealized gains (and losses) as a balance sheet adjustment only, and actually making sure that it is recognized in a separate part of the equity, or even below the line. This in order for unrealized gains (or losses) to have minimum impact on the financial statement reporting and its inherent connection to dividends.

**The recommendation is thus to have fair value/mark-to-market adjustments as balance-sheet adjustments only, not affecting the profit & loss statement, and have it in a separate part of equity that is not allowed to dividend, so that the status of information to investors for the purpose of valuation of shares for sale and purchase purposes is enhanced.**

## 7. The risks mark-to-market presents to the global economy

In their 2012-study, Stanasic, Avric, Mizdrakovic and Djenic have the following comment on marking-to-markets effect on risk:

"It does deliver more of the market risk in every single portfolio. It tends to stabilize market returns in periods of positive feedback, but doubly or triply destabilizes them in periods of negative feedback. It breeds an additional impression of overall prosperity on the stock market which is then spread to the whole economy including the real estate market and landing activities. It also affects the level of systemic risk."

It is this skewed downside accelerator effect (doubly or triply destabilizing [market returns]) and increased systemic risk that needs to be addressed when it comes to mark-to-market accounting. Ensuring that mark-to-market effects are (1) not affecting earnings, (2) are only affecting a separate part of equity in the balance sheet for investor information purposes and (3) which is not allowed to be part of dividends will minimize both the downside accelerator effect and the increased systemic risk. See more on this in chapter 8 How can the risks be mitigated.

How large is the risk, really? This is a question with several components:

- How large is the systemic risk?
- How large is the risk to an individual company?
- How large is the risk of losing tax revenues due to mark-to-market (and other fair value) accounting?

In the further we will look into each of these questions.

### How large is the systemic risk?

If we go back to the 2009 SEC-study, we see that SEC focused on that fair value measurements were used to measure a minority of assets in the financial institutions included in their study. However, the minority was very large: 45% of assets used fair value accounting. On the liability side, the amount was much smaller, a "real minority" of 15%.

However, it was further observed that a much lesser portion than 45%, only 25%, had changes in fair value that affected earnings (but earnings were affected significantly by the value changes in these 25% assets).

In the future we must assume that fair value accounting, and mark-to-market a major element of fair value accounting, will be used for a majority of assets in the finance industry, and that it will become a more and more pervading instrument for valuing assets in non-finance industries. The financial crisis of 2008 and 2009 came at a time when the world economy was at its height. After that the world economy has become shakier, and the bailout and follow-up of the financial crisis has taken enormous financial resources. Another financial crisis or a crisis in one of the other markets could have a devastating effect for the industries and countries affected.

Bank of International Settlements (BIS) came in 2012 with a report<sup>27</sup> which tried to measure the systemic risk which came up against significant measurement problems:

- A lack of institutional mechanisms which ensure coordination of national approaches
- Greater complexity in the international context: Differences in firms' organizational structures and legal status, which play limited roles in a strictly national context, complicate
- Systemic risk measurement and (crisis) management internationally.
- Scarcity of data that capture the international dimensions of systemic risk

Post-2008 financial crisis has also seen several countries financial sector being in a precarious situation, to such a degree that it easily could have formed a domino effect. The solution from the regulatory side has been to secure that the banks equity situation was strengthened. This is very much the same that this report suggests as adjustments of mark-to-market accounting: not allowing mark-to-market and other fair value adjustments to be included in dividends, but rather be kept in a separate part of equity for information purposes and for strengthening of the equity in the affected companies.

This is supported by the findings of a 2014 IMF study<sup>28</sup> on systemic risk in large banks:

- Large banks contribute more to systemic risk when they have less capital;
- Large banks contribute more to systemic risk when they have fewer deposits.
- Large banks contribute more to systemic risk when they engage more in market-based activities

<sup>27</sup> "Systemic Risks in Global Banking: What Can Available Data Tell Us and What More Data Are Needed?", Bank of International Settlement Working Papers no 376, 2012

<sup>28</sup> "Bank size and systemic risk", IMF Discussion Note, May 2014

### How large is the risk to an individual company?

Although there are no studies we have accessed that conclude with that mark-to-market accounting has directly led to the bankruptcy of a company, many of the studies accessed conclude that mark-to-market adjustments have accelerated the situation for the companies in question (see the studies referenced above). However, the language in some of the studies, for example the SEC-study, shows an opinionated approach to the subject rather than an evidence-based approach: SEC claimed in their study without any reference to any background analysis that "For the failed banks that did recognize sizable fair value losses, it does not appear that the reporting of these losses was the reason the bank failed." It is difficult to find out what "does not appear" means. If there was better evidence from the data we assume that their statement would have been differently, and it is thus likely that the above statement is an opinion only, and that the causation of the failed banks has actually not firmly eliminated fair value adjustments as one of the causes.

The risk of bankruptcy by any individual company as a result of mark-to-market adjustments is highly dependent on:

- The size of mark-to-market assets relative to the total balance sheet
- The size of any negative mark-to-market adjustment
- The size of the equity eliminated by any negative mark-to-market adjustment
- The leverage of the company
- The length of the market crisis that initiated the negative mark-to-market adjustment

In short, size of (negative) market volatility, length of market collapse, relative size of mark-to-market assets to total assets and status of the individual company's capital funding are the four elements that will determine a company's vulnerability to mark-to-market adjustments. Size of negative market volatility and length of market collapse are external factors that the individual company does not have any control over (exogenous factors). Relative size of mark-to-market assets to total assets is normally dependent on the industry sector the company is in and thus only partly controlled by the company. However, status of the individual company's capital funding is fully controlled by the company within the regulatory frames it is exposed towards.

**In order to secure that all companies are treated equal, the main suggestion is therefore to disallow that mark-to-market (and other fair-value) adjustments can be part of dividends. This will strengthen the equity proportionately to the risk each company is exposed towards, and is hence a very adequate measure.**

The bigger the size of the mark-to-market adjustment (size of assets multiplied with size of adjustment per asset adjusted for length of time), the more it impacts how much can be dividended:

- a positive mark-to-market (or other fair value) adjustment will stop this part of a positive equity to be part of dividends, and hence will function as a buffer against reverse or negative adjustments if markets turn.
- a negative mark-to-market (or other fair value) adjustment will show how much of equity that is at risk if current assessments of future values of mark-to-market assets are true.

### How large is the risk of losing tax revenues due to mark-to-market accounting?

This is a rhetorical question as the answer is either 0% or 100%.

If the mark-to-market asset is in-country in the company in question, then the answer is 0%, i.e. there is no loss of tax revenues for the tax authorities. The reason for this is that the mark-to-market accounting in this case will only function as a time-delayed deduction. The unrealized element will go over to a realized element at a future time, and then there is no gain or loss anymore for tax purposes.

However, if the mark-to-market asset is in another country, in an affiliated company or other entity (if derivatives are used to hide the affiliation) that charges for goods, services or contractual fulfillments (for example from a derivative contract) as through a mark-to-market contract, then the answer is almost always a 100% loss of the tax potential. The reason for this is that whatever the tax rate is in-country, the mark-to-market profit in the tax haven (see figure 1 above) will almost always be a fully deductible element in the company in-country. The entire potential tax revenue is thus lost through the claimed deduction which is the opposite of the mark-to-market profit in the tax haven.

If there are few mark-to-market assets outside of a country, i.e. most of the mark-to-market assets are in-country, then it is enough to change the mark-to-market accounting rules such that these adjustments are not part of earnings, is registered in a separate part of equity and is not part of dividends. If many of the mark-to-market assets are outside of the country, then it is necessary to use mechanisms like withholding taxes or reverse tax credit to either tax the mark-to-market profit (withholding taxes) or to reduce the value of the deduction in the company in-country (reverse tax credit).

## 8. How can the risks be mitigated?

As many that came forward in the SEC-study informed the SEC about: it's all about information. Without information, it is difficult to know what is going on, and when one does not know what is going on, it is impossible to take the right actions.

First and foremost is therefore that instruments like extended country-by-country reporting that Publish What You Pay Norway and other organizations are working towards must be enacted in as many countries as possible to ensure that regulatory authorities know what is going on and can measure the effect.

Secondly it is important the risk of bankruptcy is limited as much as possible, which is why this report has a separate section about how to change the mark-to-market accounting such that earnings and dividends are unaffected by mark-to-market adjustments.

Last but not least, it is important that countries which are exposed to large mark-to-market deductions take the necessary measures to stop the tax leakage, and use tax mechanisms like withholding taxes or reverse tax credit<sup>29</sup> to reduce or eliminate the effect of these cross-border capital flight instruments.

### Not affecting earnings

If mark-to-market is not allowed as part of earnings, that means that it is only realized earnings up to and including the closing that are reflected. This will treat all companies equal. The current practice with having unrealized profits or losses in earnings treat companies differently, as the length of unrealized profits and losses affecting current year earnings will differ from company to company. For standardization and normalization purposes, taking unrealized gains and losses out of earnings is thus one of the best proposals to secure that profit & loss statements across companies are comparable for the year they are declared.

### Separate part of equity

By having the effects of mark-to-market and (and other fair value adjustments) in a separate part of equity, it gives more information to the investor than today. The reason for this is that it becomes comparable across companies how much each company's current equity status is dependent on the status quo of future markets (and hence future realized earnings). Investors with different outlooks on the developments or the underlying markets will thus have better information to base their investment decisions on.

<sup>29</sup> "Taking away the tax effect of Tax Havens. Cross border taxation methods and Reverse Tax Credit"/ PWP Norway/<http://www.publishwhatyoupay.no/publications>, May 2017 [extract May 2017]

**Not part of dividends (no cash flow effects)**

Last, but not least, in order to reduce risk, we need to define what the risk is. Everybody knowledgeable about systemic risk will know this already, but it is not common knowledge, hence we ask the reader to have patience with the following explanation meant for the non-professional reader. Systemic risk is the risk of collapse of an entire market (or financial system), as opposed to risk associated with any one individual entity, group or component of that market (or financial system). Any company has a certain risk of bankruptcy. This can be due to failing demand/increased competition, paradigm shifts/disruptive technologies, increasing cost which cannot be recouped in the market, management actions/inactions, lack of financing or timing effects. If a company goes bankrupt, and this does not affect the entire market or financial system, then that company does not pose a systemic risk. However, if the bankruptcy of a company or a group of companies would be so large that it actually threatens the collapse of the entire market or financial system in question, then that company or group of companies constitute a system risk. Singular companies that are so large or so embedded in a market or a financial system that they constitute this risk alone are often called "too big to fail" companies. Accounting policies are guidelines that make all the companies behave in the same way. That means that if one company is affected, all companies with the same circumstances are affected in the same way. That is why accounting policies can constitute a systemic risk if they are creating an environment that puts whole groups of companies at risk at the same time.

This is the case with mark-to-market accounting (and other fair value accounting methods) as it takes into account future information in the closing of today's books or pertains to use current information on future value of current assets in the closing of the books. Again we would like to emphasize that we are not against mark-to-market accounting or argue that society should go back to historical cost accounting, only to raise a debate about how to de-risk mark-to-market accounting and promote actual policy suggestions for such de-risking. One of the most important elements is to secure that it is not possible to dividend cash out of a company based on unrealized earnings (earnings at risk). It is thus important to retain the information that mark-to-market (and other fair value) accounting give to investors, while at the same time reduce the systemic risk that mark-to-market (and other fair value) accounting inadvertently contributes to.

By having the mark-to-market (and other fair value) accounting adjustments being registered in a separate part of equity, it is possible to see how much of equity that is based on realized earnings and how much is based on earnings yet to be realized. By avoiding having mark-to-market (and other fair value) adjustments affect earnings, only a separate part of equity in the balance sheet, one will over time be able to get a track record of how previous years' equity has been affected by value adjustments not sustained by future observations. Over time this could give raise to better and more precise value methodologies and adjustment guidelines which could improve future financial statements and reduce systemic risk.

One of the immediate actions, until one has more precise value methodologies and adjustment guidelines, would however be to secure that unrealized value adjustments from mark-to-market (and other fair value) accounting registered in the separate part of equity are not part of the equity that can be dividended. No part of the equity should be part of the dividend if it is dependent on future events. It could be argued that this should only be for companies that were "too big to fail", but this would be unreasonable towards investors in other companies. Why should only "too big to fail" companies be protected against the systemic risk effect of accounting guidelines like mark-to-market (and other fair value accounting adjustments)? Only to the extent one would want to negatively discriminate against these companies should one consider this type of different regulatory measures.

**Conclusion**

The best thing would be to have all companies being treated equal, that is that no part of unrealized equity should be part of dividends. This would ensure that it does not benefit companies to gamble in unrealized earnings, i.e. that different management teams have different policies with respect to measuring the fair value adjustments. As long as they cannot be dividended, is shown separately in the equity part of the balance sheet and does not affect current year's earnings, then most negative effects of different valuation methodologies and differences in the positions various companies have will be eliminated and the companies' status as of the closing date will be comparable, much more so than with the current accounting guidelines.

**9. The best solution – doing the right thing**

Fix the earnings flaw, fix the equity flaw and fix the tax flaw.

Mark-to-market is several different things and the optimal solution is to handle each of the weaknesses separately.

Before any specific measures mentioned above are implemented, it is important to:

- Limit mark-to-market accounting to defined asset classes where there is enough liquidity and published market prices, no exception. This will limit the ability of management of a company to make their own assumptions on their mark-to-market adjustments.
- For companies other than financial institutions have derivatives in a separate tax base<sup>30</sup> so that derivatives are not mixed with mark-to-market adjustments.

After the asset classes are clearly defined and derivatives are not part of mark-to-market adjustments, ensure that

- mark-to-market adjustments are not part of earnings, i.e. that it is registered as a direct equity adjustment in the balance sheet.
- the mark-to-market adjustment is kept in a separate part of equity to enhance the information to investors.
- this separate part of equity is not allowed to be part of dividends, i.e. that each company has a buffer against mark-to-market adjustments (it is not enough to just disclose the amounts of such assets that companies are holding).
- have write-down mechanisms for variations that go beyond normal market fluctuations that spread the variation over time in order for extraordinary large market movements to not have the immediate effect of wiping out the equity of key institutions.

Create a proxy taxation using withholding taxes to tax the mark-to-market profit element, i.e. the profit element that goes above the down-payment cost element in the mark-up example in figure 1 above. The guideline for how to calibrate the withholding tax correctly is described in the report "Taking Away the Tax Effect of Tax Havens".<sup>31</sup>

<sup>30</sup> «Protection against derivatives abuse»/PWYP Norway/ [http://www.publishwhatyoupay.no/sites/all/files/1006a-PWYP\\_DerivativesReport\\_ENG\\_DOWNLOAD\\_1.pdf](http://www.publishwhatyoupay.no/sites/all/files/1006a-PWYP_DerivativesReport_ENG_DOWNLOAD_1.pdf), December 2011 (extract May 2017)

<sup>31</sup> "Taking away the tax effect of Tax Havens. Cross border taxation methods and Reverse Tax Credit"/PWYP Norway/<http://www.publishwhatyoupay.no/publications>, May 2017 (extract May 2017)



## 10. The second-best solution: Reverse Tax Credit

If there is no desire to fix the earnings flow and the equity flow, at least fix the tax flow, because it at least strengthens the society the companies are dependent on so that it is better prepared to help industry when and if a market collapses and hurts the industries of the country.

Since it may be desired by the tax authorities to target more than mark-to-market adjustments, a very effective tax mechanism for non-transactional cash flows cross-border is the Reverse Tax Credit mechanism described in the report "Taking Away the Tax Effect of Tax Havens. Cross border taxation methods and Reverse Tax Credit".<sup>32</sup> Instead of creating specific withholding taxes for each particular non-transactional cash flow, the regulatory authorities may find it easier to create a tax mechanism that covers the entire class of tax issues associated with non-transactional cash flows. In this case, Reverse Tax Credit is ideal as it is a very robust tax mechanism for this class of tax avoidance and tax evasion mechanisms.

Why is this the second-best solution? While the Reverse Tax Credit is a very robust mechanism which it is very hard to get around, it does not allow for a varied approach towards the various non-transactional cash flows. If there is a desire to diversify the taxation mechanisms towards the various subgroups of non-transactional cash flows, then targeted withholding taxes are better than a "do-it-all-in-once" mechanism like Reverse Tax Credit.

## 11. What counterarguments are there – and why are they not valid?

We can foresee a number of counterarguments to what we have recommended in this report, but even the most rudimentary investigation leaves these counterarguments non-valid. Here are some obvious counterarguments that we have looked into:

1. Mark-to-Market (and other fair value) adjustments need to be part of earnings

Answer: No, because the information value is in having this as part of the equity at the closing date. The information value of the profit & loss statement actually improves when fair value adjustments are held separately as a direct balance sheet adjustment to a separate part of equity, as the size of realized earnings then becomes much clearer.

2. Fair value adjustments are part of earnings and as such should be part of dividends

Answer: No, fair value adjustments do not have a rightful place in earnings, as it is not "earned". Fair value adjustments are an assumption on the future, and it belongs to future, not current, earnings. The reason why it is accounted for is for information purposes to investors that would like to buy or sell shares in the company based on closing date financial statements. This information thus belongs in its entirety to the equity part of the balance sheet, and as a separate part in order to distinguish it from paid-in capital and retained earnings. As it is neither paid-in or earnings, but assumptions on the future, it should not be possible to include in dividends.

3. Taxing mark-to-market profits in other countries infringes on these countries taxation rights

<sup>32</sup> "Taking away the tax effect of Tax Havens. Cross border taxation methods and Reverse Tax Credit" / PWYP Norway/<http://www.publishwhatyoupay.no/publications>, May 2017 [extract May 2017]

Answer: No, both the withholding tax approach in chapter 9 and the reverse tax credit approach in chapter 10 allow for other jurisdictions taxation: withholding tax due to that the suggested method is to calibrate the withholding tax with the other countries tax system and reverse tax credit because it takes into account the actual tax rate the company has achieved towards all the jurisdictions where it is active.

## A. Dynamic pricing - the future of mark-to-market

We have above covered two sides of the mark-to-market mechanism: the issues with mark-to-market accounting and the roller-coaster effects this accounting can have on businesses, and the tax leakage introduced by mark-to-market pricing and contracts which arise when the seller is in a tax haven, i.e. in a low- or no-tax jurisdiction.

However, this is not the only serious effect of mark-to-market behavior. As algorithms and artificial intelligence is on the increase, the effects on mark-to-market will be profound. Retailers are now seeking to utilize artificial intelligence to predict the top price you are willing to pay – also called dynamic pricing.

In an article<sup>33</sup>, Sven Brodmerkel wrote: "It's worth remembering that the goal of dynamic pricing is to benefit the seller, not the buyer, ...

... dynamic pricing can be designed to offer a customer the occasional bargain ...

The take-home message is that while customers might benefit occasionally, by gathering enough personalized data, the retailer's algorithms can ultimately ensure that the retailer wins overall."

Dynamic pricing introduces a third area which will further challenge the economy of citizens and countries: a reduction in remaining disposable income due to dynamic pricing. When dynamic pricing introduces varied pricing depending on what is each person's ability and willingness to pay, then online businesses in low-tax or no-tax jurisdictions will effectively take a higher cut of citizens' disposable income. This means

- lower capacity for taking on increased taxes (to compensate for lost taxes from businesses)
- lower capacity to uphold purchasing power towards businesses within the borders of a country (reduced competitive power of in-country businesses).

Online businesses in-country will not have exactly the same effect: these businesses will take a cut of citizens' disposable income in competition with other businesses, in-country and multinational, but are in line with other in-country businesses in that their surplus is taxed in-country, and hence the damaging effect of dynamic pricing is reduced competitive power of other businesses (in-country or multinational).

Again it is demonstrated that it is when cross-border transactions to and from low- or no-tax jurisdictions that the most damaging effects are introduced. Hence, introduction of tax mechanisms that allows in-country businesses compete on equal footing with multinational companies are highly necessary in order to stop the downward spiral resulting from tax competition.

This and other reports from PWYP Norway show that it is possible to create a level playing field between in-country and multinational businesses, but politicians need to utilize the right combination of instruments with the correct calibration.

<sup>33</sup> "Dynamic pricing: Retailers using artificial intelligence to predict top price you'll pay", 27. June 2017, Sven Brodmerkel for Future Tense; <http://www.abc.net.au/news/2017-06-27/dynamic-pricing-retailers-using-artificial-intelligence/8638340> [extracted June 2017]

## Did you like this report?

Take a look at these reports, you might find them interesting as well. You will find all the reports at <http://www.publishwhatyoupay.no/en/publications>

### An extended country-by-country reporting standard. A policy proposal to the EU. Volume 2



- Natural resources have the largest value creation potential to mobilize tax revenue, but profit often ends up elsewhere.
- Today, the Extractive Industries can transfer significant profits out of the source country before it get taxed.
- One simple policy proposal, aligned with US and EU regulation, will give investors and constituents the instrument to follow their money.
- The proposal links taxpayments to the audited financial statements through 8 simple accounting numbers.

### The Case for Windfall Taxes – a guide to optimal resource taxation



- In 2012, government expenditure worldwide was USD 28 656 billion. Total tax burden was USD 18 821 billion.
- This huge discrepancy can be reduced by closing loopholes in tax systems and preventing capital flight
- This report is about analyzing and fixing loopholes in tax systems – increasing cost-efficiency and ensuring fairer competition in extractive industries.

### Protection from derivative abuse



- Extractive industries are big users of a financial instrument called derivatives, which can be abused to transfer revenues out of host countries before it is taxed.
- The value behind all derivatives is 10 times the world GDP.
- One simple policy proposal can be enacted upon unilaterally to stop abuse, while protecting proper use of these instruments.

### Lost Billions. Transfer Pricing in the Extractive Industries



- Over 110 billion USD has disappeared through mispricing of crude oil in the US and the EU between 2000 and 2010.
- Profits have been moved from the source country to the extractive industry companies.
- In December 2000, the Netherlands imported crude oil for the price of 1,69 Euro per bbl. while the spot market prices were no lower than 26 Euro, resulting in an underevaluation of around 40 million Euro to the source country.

### Silence is Golden



- Lawyers have a duty of confidentiality. The confidentiality springs from “the best interest of society” and lawyers shall safeguard rule of law in the society. However, confidentiality also has a different and unintended effect that it is necessary to shed light on.
- Companies can claim client confidentiality to protect themselves against government insight into activities and transactions, transaction routes and company structures. The lawyers can also claim client confidentiality to prevent insight into to what they have participated in.
- These days, important questions regarding the extent of lawyers’ privilege of confidentiality in the tax area are being asked. PWYP Norway presents a small selection of short articles that highlight various aspects

### Piping Profits



- In this report, PWYP Norway has attempted to unravel the labyrinthine corporate structures created by some of the world’s biggest energy and mining companies.
- Few details are known about the murky and expansive networks of extractive companies and their subsidiaries.
- PWYP Norway seeks to clarify this picture by finding out how many subsidiaries companies have and where these are located, also establishing through this process how many are located in secrecy jurisdictions.



Making Transparency Possible

Publish What You Pay Norway is the Norwegian chapter of a global network of more than 650 organisations from over 70 resource rich countries. We work to establish financial transparency and accountability in the extractive sector, so that countries can mobilise their own capital to promote a sustainable future, democracy, and human rights.

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