



SFB/Transregio 266

## ACCOUNTING FOR TRANSPARENCY

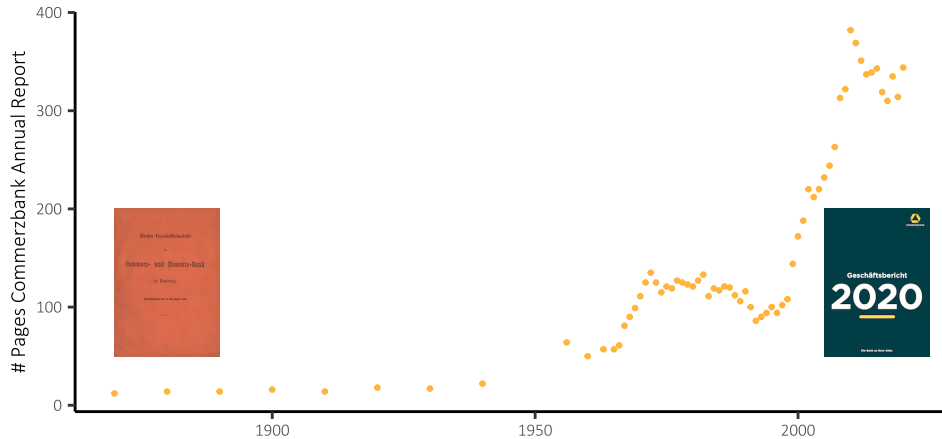
### Research on Corporate Transparency Element 15: Financial Reporting and Data Aggregators

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TRR 266 Accounting for Transparency

June 30, 2021

## Financial reporting provides a wealth of information...



... and can be very costly to obtain

Apple Inc. 10-K Form 10-K | 40

Table 3 - Financial Instruments

Cash, Cash Equivalents and Marketable Securities

The following tables show the Company's cash and marketable securities by significant investment category as of September 26, 2020 and September 26, 2019 (in millions).

	Adjusted Cost	Unrealized Gain	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Current Marketable Securities	Non-Current Marketable Securities
Cash	\$ 17,773	\$ -	\$ -	\$ 17,773	\$ 17,773	\$ -	\$ -
Level 1 (1)							
Money market funds	2,771	11	(11)	2,771	2,771	-	-
Subtotal	2,771	11	(11)	2,771	2,771	-	-
Level 2 (2)							
U.S. Treasury securities	65	-	-	65	65	3,275	8,218
U.S. agency securities	43	-	-	43	43	3,725	3,375
Non-U.S. government securities	136	-	-	136	98	3,369	13,888
Certificates of deposit and time deposits	323	-	-	323	323	6,249	111
Commercial paper	112	-	-	112	3,388	8,881	-
Corporate debt securities	363	-	-	363	-	13,887	58,370
Municipal securities	13	-	-	13	-	159	884
Mortgage- and asset-backed securities	153	-	-	153	-	491	13,374
Subtotal	965	-	-	965	3,879	56,367	97,566
Total (1)	\$ 18,738	\$ 11	\$ (11)	\$ 18,738	\$ 21,652	\$ 56,367	\$ 108,477
Cash	\$ 172	\$ -	\$ -	\$ 172	\$ 172	\$ -	\$ -
Level 1 (1)							
Money market funds	163	-	-	163	163	-	-
Subtotal	163	-	-	163	163	-	-
Level 2 (2)							
U.S. Treasury securities	80	-	-	80	80	9,871	13,982
U.S. agency securities	43	-	-	43	43	2,245	2,375
Non-U.S. government securities	132	-	-	132	169	1,768	16,181
Certificates of deposit and time deposits	43	-	-	43	2,654	7,889	88
Commercial paper	123	-	-	123	6,188	7,240	-
Corporate debt securities	86	-	-	86	-	36,781	36,791
Municipal securities	88	-	-	88	-	88	887
Mortgage- and asset-backed securities	13,786	-	-	13,786	-	1,749	13,888
Subtotal	14,081	-	-	14,081	9,774	57,713	108,341
Total (1)	\$ 14,253	\$ -	\$ -	\$ 14,253	\$ 9,946	\$ 57,713	\$ 108,341

(1) Level 1 fair value estimates are based on quoted prices in active markets for identical assets or liabilities.

(2) Level 2 fair value estimates are based on observable inputs other than quoted prices in active markets for identical assets or liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

(3) As of September 26, 2020 and September 26, 2019, total marketable securities included \$12.2 billion and \$13.2 billion, respectively, that was restricted from general use, related to the State Aid Decision (pilot to Hells, S, "Income Taxes") and other agreements.

Apple, 10-K EDGAR (excerpt on marketable securities)

## The role of the regulatory filing infrastructure

Some examples:

- The public availability of (audited) private firm financial statement information across Europe has facilitated arm's length banking arrangements (Breuer et al., RFS 2018)
- EDGAR has had an overall positive effect on price discovery but the effect on information asymmetry is somewhat ambiguous (Asthana et al., TAR 2004; Gao and Huang, RFS 2020)
- EDGAR outages have an effect on liquidity (Heilig et al., SSRN 2021)

## Do investment professionals use data aggregators?

“Bloomberg. It’s all on Bloomberg”

— anonymous investment professional, Cascino et al. (TAR, 2021)

Some examples:

- Schaub (JFQA, 2018): Delays on First Call are associated with larger post earnings announcement drift
- Rogers et al. (JAR, 2017) show that the Public Dissemination Service of EDGAR used to create an economically sizable trading advantage for its paying customers by releasing information 30 seconds early to them
- Research issues:
  - Database changes/errors can affect research findings (Ljungqvist et al., JoF 2009)
  - Database coverage bias can induce subtle sample selection issues (Beuselink et al., SSRN 2021)

- Asthana and Balsam (JAPP, 2001): [https://doi.org/10.1016/S0278-4254\(01\)00035-7](https://doi.org/10.1016/S0278-4254(01)00035-7)
- Asthana, Balsam, and Sankaraguruswamy (TAR 2004): <https://doi.org/10.2308/accr.2004.79.3.571>
- Beuselinck, Elfers, Gassen and Pierk (SSRN, 2021): <http://dx.doi.org/10.2139/ssrn.3496543>
- Blankespoor, deHaan and Marinovic (JAE, 2020): <https://doi.org/10.1016/j.jacceco.2020.101344>
- Breuer, Hombach and Müller (RFS, 2018): <https://doi.org/10.1093/rfs/hhx123>
- Cascino, Clatworthy, Garcia Osma, Gassen and Imam (TAR, 2021):  
<https://doi.org/10.2308/TAR-2019-1030>
- Gao and Huong (RFS, 2020): <https://doi.org/10.1093/rfs/hhz100>
- Heilig, Müller and Peter (SSRN, 2021): <http://dx.doi.org/10.2139/ssrn.3809605>
- Ljungqvist. Malloy and Marston (JoF, 2009): <https://doi.org/10.1111/j.1540-6261.2009.01484.x>
- Rogers, Skinner and Zechman (JAR, 2017): <https://doi.org/10.1111/1475-679X.12167>
- Schaub (JFQA, 2018): <https://doi.org/10.1017/S0022109018000133>