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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

IN RE APPLE PROCESSOR LITIGATION

Case No. [5:18-cv-00147-EJD](#)

**ORDER GRANTING DEFENDANT’S  
MOTION TO DISMISS**

Re: Dkt. No. 75

Putative class action Plaintiffs (“Plaintiffs”) are purchasers or lessors of certain Apple products (“iDevices”) that each contain a central processing unit (“CPU”), which Plaintiffs allege suffers from a design defect that allows unauthorized third-parties to access sensitive user data. Plaintiffs bring this lawsuit against Defendant Apple (“Apple”) alleging that they paid more for their iDevices than they were worth because Apple knowingly omitted the defect; the value of Plaintiffs’ products has diminished; and Apple’s attempts to mitigate the defects with patches through software updates materially slowed down the performance of their iDevices.

Apple has filed a motion to dismiss Plaintiffs’ second consolidated amended complaint (“SCAC”) with prejudice stating that (1) under Federal Rule of Civil Procedure 12(b)(1) Plaintiffs still lack Article III standing as they have not remedied their standing deficiencies in their most recent amended complaint and (2) under Federal Rule of Civil Procedure 12(b)(6) for inadequate pleading of their misrepresentation, omission, reliance, and damages claims.

This court has subject matter jurisdiction based upon the Class Action Fairness Act. 28 U.S.C. § 1332(d). After considering the papers submitted and hearing oral argument on the

1 motion, the court finds that Plaintiffs lacks Article III standing. Because of this, and the previous  
2 opportunities to cure this defect, Defendant’s motion to dismiss is granted without leave to amend.

3 **I. BACKGROUND<sup>1</sup>**

4 **A. The Parties**

5 Plaintiffs are Jennifer Abrams (CA), Anthony Bartling (NH), Robert Giraldi (NY), and  
6 Jacqueline Olson (NY) (“Plaintiffs”) who, on behalf of themselves and all others similarly  
7 situated, allege upon personal knowledge as to their own acts and upon information and belief as  
8 to the remaining matters, that certain Apple products such as iPhones, iPads, and the Apple TV  
9 (collectively “iDevices”) all contain a central processing unit that is defective. SCAC ¶ 1.<sup>2</sup>  
10 Plaintiffs allege that they have been harmed by Apple’s attempts to mitigate the alleged design  
11 defect through software updates 11.2 and 11.2.2 have severely degraded the processor  
12 performance in their iDevices and renders their iDevices less valuable.

13 Plaintiffs bring their class action pursuant to Federal Rule of Civil Procedure 23 and seek  
14 to represent a class that consists of:

15 All persons in the United States who purchased or leased from Apple  
16 and/or its authorized retailer sellers one or more iPhones, iPads, Apple  
17 TVs, or other products containing processors designed or modified by  
Apple, at any time since January 1, 2010.

18 *Id.* ¶ 115. Plaintiffs also seek to represent three subclasses: The “California Subclass,” the “New  
19 Hampshire Subclass,” and the “New York Subclass.” *Id.* ¶ 117. These classes are comprised of  
20 members who purchased such iDevices within their respected states. *Id.*

21 Defendant Apple (“Apple”) is a business incorporated in Delaware with a principal place  
22 of business in Sunnyvale, California. Apple designs, manufactures, distributes, and sells products  
23 such as laptops, desktop computers, iDevices, and other computing devices that contain  
24 processors. *Id.* ¶ 18.

25  
26  
27 <sup>1</sup> The background is a summary of the allegations in the SCAC.

28 <sup>2</sup> Plaintiffs do not assert a claim for a product defect in this action.

1           **B.     The Alleged Defect**

2           Within each of Plaintiffs’ iDevices resides +a central processing unit, also known as a  
3 processor or computer “chip.” *Id.* ¶ 24. This processor is based on architecture licensed from an  
4 engineering firm ARM Holdings. *Id.* ¶ 43. Apple then modifies the processor by designing their  
5 own “microarchitecture.” Many companies use ARM’s designs in their products differently;  
6 however, how Apple modifies its processors is unique to Apple. *Id.* ¶¶ 45, 48. For example,  
7 Apple customizes its processors with two optimization techniques called “speculative execution”  
8 and “out-of-order execution,” which enable faster processor performance by either allowing  
9 programs to run simultaneously or prior to a program being requested to run. *Id.* ¶ 30. Since as  
10 early as 2010, when Apple began customizing its processors, Apple’s processors have been used  
11 exclusively in Apple products. *Id.* ¶ 48. The processor within the iDevice works with Apple’s  
12 operating system (“OS”) to carry out the computer’s programs and instructions. *Id.* ¶¶ 24, 25. In  
13 2017, independent security researchers discovered that these processors contain two vulnerabilities  
14 that allow unauthorized third parties to access sensitive user data. *Id.* ¶ 2. The two vulnerabilities  
15 are called “Meltdown” and “Spectre.”<sup>3</sup> *Id.* Plaintiffs allege that the way in which Apple’s  
16 optimization techniques are employed allow bad actors to access exposed sensitive data that would  
17 normally need to process through security checks or require isolation within the OS. *Id.* ¶¶ 30–42.

18           Apple is aware of the vulnerabilities and made a public announcement on January 4, 2018,  
19 stating that on December 2, 2017, Apple released iOS 11.2, a software update to address  
20 Meltdown. *Id.* ¶ 54. On January 8, 2018, Apple released iOS 11.2.2, a software update to address  
21 Spectre. *Id.* Plaintiffs allege that Apple knew of the vulnerabilities and did not publicly disclose  
22 them until after the New York Times posted an article leaking the information. *Id.* ¶ 84. Once  
23 leaked, Apple responded ahead of a “coordinated disclosure” date agreed upon by Apple, Intel,  
24 Google, Microsoft, Amazon, AMD, and ARM. *Id.* Plaintiffs assert that these vulnerabilities are

25 \_\_\_\_\_  
26 <sup>3</sup> The security issues raised by Meltdown and Spectre apply to all modern processors and affect  
27 nearly all computing devices and operating systems. Researchers have identified multiple variants  
28 of Meltdown and Spectre. SCAC ¶ 49. How each manufacturer, such as Apple, Intel, or AMD,  
decides to mitigate the vulnerabilities varies depending on how they modify their chips. *Id.* ¶ 50.

1 material because “had they known data stored on their systems would be compromised and made  
2 available to unauthorized third parties” they would not have purchased their iPhones. *Id.* ¶ 68.  
3 Plaintiffs also allege that after Apple made these announcements, iPhones declined in value. *Id.*  
4 ¶¶ 71–79.

5 **C. Procedural History**

6 On June 8, 2018, Plaintiffs filed consolidated amended complaint against Apple alleging  
7 16 causes of action. Dkt. No. 46. On August 7, 2018, Apple filed a motion to dismiss, which the  
8 court later granted with leave to amend. Dkt. Nos. 49, 66. In granting Apple’s motion to dismiss,  
9 the court determined that Plaintiffs had not established standing and therefore the court did not  
10 address the substance of the claims. Dkt. No. 66 (“Order”). Plaintiffs could neither show that a  
11 named plaintiff had personally suffered from slower performance, nor a universal injury. Order at  
12 5–8. At that time, Plaintiffs had not even alleged they personally downloaded the patches they  
13 alleged caused the degrading performance. Additionally, Plaintiffs did not sufficiently allege that  
14 their personal iPhones suffered any actual diminution in value. *Id.* at 8. Plaintiffs have since  
15 amended their complaint by adding facts in support of their standing arguments while also  
16 narrowing their claims down to seven. Plaintiffs seek an order enjoining Apple from continuing  
17 and maintaining its alleged violations. For the class, Plaintiffs seek certification, and damages—  
18 including actual, statutory, punitive, and/or civil penalties. They also request costs and attorney’s  
19 fees. Apple moves to dismiss Plaintiffs’ SCAC for lack of sufficient facts in support of standing  
20 or any cause of action. Dkt. No. 75.

21 **II. LEGAL STANDARDS**

22 **A. Federal Rule of Civil Procedure 12(b)(6)**

23 Federal Rule of Civil Procedure 8(a) requires a plaintiff to plead each claim with sufficient  
24 specificity to “give the defendant fair notice of what the . . . claim is and the grounds upon which  
25 it rests.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (internal quotations omitted).  
26 Although particular detail is not generally necessary, the factual allegations “must be enough to  
27 raise a right to relief above the speculative level” such that the claim “is plausible on its face.” *Id.*

1 at 555, 570. A complaint which falls short of the Rule 8(a) standard may be dismissed if it fails to  
2 state a claim upon which relief can be granted. Fed. R. Civ. P. 12(b)(6). Dismissal of a claim  
3 under Rule 12(b)(6) may be based on a “lack of a cognizable legal theory or the absence of  
4 sufficient facts alleged under a cognizable legal theory.” *Balistreri v. Pacifica Police Dep’t*, 901  
5 F.2d 696, 699 (9th Cir. 1988) (internal citation omitted); *see Ministerio Roca Solida v. McKelvey*,  
6 820 F.3d 1090, 1096 (9th Cir. 2016).

7 At the motion to dismiss stage, the court must read and construe the complaint in the light  
8 most favorable to the non-moving party. *Cahill v. Liberty Mut. Ins. Co.*, 80 F.3d 336, 337–38 (9th  
9 Cir. 1996). Additionally, the court must accept as true all “well-pleaded factual allegations.”  
10 *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009). However, “courts are not bound to accept as true a  
11 legal conclusion couched as a factual allegation.” *Twombly*, 550 U.S. at 555. Nor is a complaint  
12 sufficient if it merely “tenders naked assertions devoid of further factual enhancement.” *Iqbal*,  
13 556 U.S. at 678 (internal quotation marks omitted). “In all cases, evaluating a complaint’s  
14 plausibility is a ‘context-specific’ endeavor that requires courts to draw on . . . judicial experience  
15 and common sense.” *Levitt v. Yelp! Inc.*, 765 F.3d 1123, 1135 (9th Cir. 2014) (quoting *Starr v.*  
16 *Baca*, 652 F.3d 1202, 1216 (9th Cir. 2011)).

17 Claims that sound in fraud are subject to a heightened pleading standard. Fed. R. Civ.  
18 Proc. 9(b) (“In alleging fraud or mistake, a party must state with particularity the circumstances  
19 constituting fraud or mistake.”); *Vess v. Ciba-Geigy Corp. USA*, 317 F.3d 1097, 1103–04 (9th Cir.  
20 2003) (recognizing that claims “grounded in fraud” or which “sound in fraud” must meet the Rule  
21 9(b) pleading standard, even if fraud is not an element of the claim). The allegations must be  
22 “specific enough to give defendants notice of the particular misconduct which is alleged to  
23 constitute the fraud charged so that they can defend against the charge and not just deny that they  
24 have done anything wrong.” *Semegen v. Weidner*, 780 F.2d 727, 731 (9th Cir. 1985). This  
25 requires an account of the “time, place, and specific content of the false representations as well as  
26 the identities of the parties to the misrepresentations.” *Swartz v. KPMG LLP*, 476 F.3d 756, 764  
27 (9th Cir. 2007) (quoting *Edwards v. Marin Park, Inc.*, 356 F.3d 1058, 1066 (9th Cir. 2004)). In

1 other words, fraud or claims asserting fraudulent conduct must generally contain more specific  
2 facts than is necessary to support other causes of action.

3 When deciding whether to grant a motion to dismiss, the court generally “may not consider  
4 any material beyond the pleadings.” *Hal Roach Studios, Inc. v. Richard Feiner & Co.*, 896 F.2d  
5 1542, 1555 n.19 (9th Cir. 1990). However, the court may consider material submitted as part of  
6 the complaint or relied upon in the complaint, and may also consider material subject to judicial  
7 notice. *See Lee v. City of Los Angeles*, 250 F.3d 668, 688–89 (9th Cir. 2001).<sup>4</sup> *See Warren v. Fox*  
8 *Family Worldwide, Inc.*, 328 F.3d 1136, 1139 (9th Cir. 2003) (holding the court is “not required to  
9 accept as true conclusory allegations which are contradicted by documents referred to in the  
10 complaint.”).

11 In the event that a motion to dismiss is granted, “leave to amend should be granted ‘unless  
12 the court determines that the allegation of other facts consistent with the challenged pleading could  
13 not possibly cure the deficiency.’” *DeSoto v. Yellow Freight Sys.*, 957 F.2d 655, 658 (9th Cir.  
14 1992) (quoting *Schreiber Distrib. Co. v. Serv-Well Furniture Co.*, 806 F.2d 1393, 1401 (9th Cir.  
15 1986)).

16 **III. DISCUSSION**

17 Apple moves to dismiss all of Plaintiffs’ claims alleged in their SCAC on Article III  
18 standing grounds, arguing Plaintiffs have not remedied their FCAC and still lack a showing that  
19 any named Plaintiff has suffered an injury-in-fact. Apple also moves to dismiss each of Plaintiffs’  
20 substantive claims for failure to state a claim upon which relief can be granted. Because Article  
21 III standing is a threshold jurisdictional question, the court will address Apple’s 12(b)(1) motion  
22 prior to analyzing the substance of the claims. *See Steel Co. v. Citizens for a Better Env’t*, 523  
23 U.S. 83, 94 (1998); *United States v. Larson*, 302 F.3d 1016, 1019 (9th Cir. 2002).

24  
25  
26 <sup>4</sup> Pursuant to Federal Rule of Evidence 201, the court may take judicial notice of matters of public  
27 record but may not take judicial notice of a fact that is subject to reasonable dispute. Fed. R. Evid.  
28 201(b). The court declines to take judicial notice of Apple’s Exhibits A through I because they  
were not needed to arrive to the conclusion regarding standing. *See* Dkt. No. 76.

1           **A. Article III Standing**

2           Standing is properly challenged through a Rule 12(b)(1) motion. *White v. Lee*, 227 F.3d  
3           1214, 1242 (9th Cir. 2000). “A plaintiff has the burden to establish that it has standing.”  
4           *WildEarth Guardians v. United States Dep’t of Agric.*, 795 F.3d 1148, 1154 (9th Cir. 2015).  
5           Article III of the Constitution extends the judicial “Power of the United States” to only “Cases”  
6           and “Controversies.” Art. III, § 2; *See City of Los Angeles v. Lyons*, 461 U.S. 95, 101 (1983);  
7           *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377 (1994). “Standing to sue is a  
8           doctrine rooted in the traditional understanding of a case or controversy.” *Spokeo, Inc. v. Robins*,  
9           136 S. Ct. 1540, 1547 (2016). To satisfy Article III standing, a plaintiff must establish: (1) an  
10          “injury in fact” that is both concrete and particularized, as well as actual and imminent; (2) that the  
11          injury is fairly traceable to the challenged action of the defendant; and (3) that it is likely, rather  
12          than merely speculative, that the injury will be redressed by a favorable decision. *Friends of the*  
13          *Earth, Inc. v. Laidlaw Envtl. Servs., Inc.*, 528 U.S. 167, 180–81 (2000); *Lujan v. Defenders of*  
14          *Wildlife*, 504 U.S. 555, 561–62 (1992). Particularity and concreteness are two separate inquiries.  
15          *Robins v. Spokeo, Inc.*, 867 F.3d 1108, 1111 (2017). An injury is concrete when it actually exists.  
16          *Spokeo*, 136 S. Ct. at 1548. Intangible injuries can be concrete. *Id.* at 1549. For an injury to be  
17          “particularized,” as required for Article III standing, it “must affect the plaintiff in a personal and  
18          individual way.” *Id.* at 1548.

19          “In class actions, the named representatives must allege and show that they personally have  
20          been injured, not that injury has been suffered by other, unidentified members of the class to  
21          which they belong and which they purport to represent.” *Lierboe v. State Farm Mut. Auto. Ins.*  
22          *Co.*, 350 F.3d 1018, 1022 (9th Cir. 2003) (quoting *Pence v. Andrus*, 586 F.2d 733, 736–37 (9th  
23          Cir. 1978)); *see also Spokeo*, 136 S. Ct. at 1547 (adding that injury suffered by other unidentified  
24          members of the class to which named plaintiffs belong is not enough to meet Article III standing).  
25          The Supreme Court has further emphasized that “threatened injury must be *certainly impending* to  
26          constitute injury in fact, and that allegations of *possible* future injury are not sufficient.” *Clapper*  
27          *v. Amnesty Int’l USA*, 133 S. Ct. 1138, 1142–43 (2013) (internal quotations and citations omitted).



1 Here, Plaintiffs allege injury exists by way of the degraded performance of their iDevices  
2 and a diminution in value. The first, Plaintiffs allege, is the result of Apple’s attempts to mitigate  
3 the vulnerabilities of Meltdown and Spectre on their processors by applying two “patches” also  
4 known as software updates, which has caused iDevices to perform slower than advertised. The  
5 diminution in value, Plaintiffs argue through a new regression analysis, also provides an economic  
6 injury-in-fact. The court will address each of the alleged injuries in turn, beginning with iDevice  
7 performance degradation.

8 **1. Injury-In-Fact Based on Performance Degradation**

9 Apple contends Plaintiffs still lack standing because “they still have not alleged any  
10 personal injury or any facts that can support an inference that they personally were harmed by a  
11 purported performance degradation caused by Apple’s software updates.” Dkt. No. 75 at 16–17.  
12 Additionally, Apple argues, even with Plaintiffs’ newly added facts of testing an iPhone 7,  
13 universal injury does not exist. *Id.* at 17. The court agrees that Plaintiffs have failed to cure their  
14 pleadings to show that a named class plaintiff has experienced a degraded performance on their  
15 personal iDevice. Plaintiffs are able to show the possible existence of a concrete injury, but lack a  
16 showing of particularization.

17 **a. Whether Plaintiffs’ injury is concrete**

18 Concreteness requires that an injury be “de facto,” meaning that it must actually exist.  
19 *Spokeo*, 136 S. Ct. 1540, 1548. Here, Plaintiffs add facts in their SCAC that they tested an iPhone  
20 7, which measured the “real-world performance impact of Apple’s mitigation efforts by recording  
21 the time it took these iDevices to perform common operations.” SCAC ¶ 61. Plaintiffs assert that  
22 “[i]n each instance, the iPhone with the Meltdown and Spectre mitigations installed performed  
23 significantly worse than those with iOS versions that did not include Apple’s mitigation efforts.”  
24 *Id.* Downloading applications such as Facebook Messenger, Instagram, and Google Maps, on  
25 average, were processed 40.6 percent slower after installing “a version of iOS containing Apple’s  
26 mitigation efforts than it did before.” *Id.* ¶ 62. A test that involved the downloading of a 4k video  
27 clip after the software update, performed at a rate 7.6 percent slower than it did before the update.



1 *Id.* ¶ 63. Plaintiffs allege that these results are consistent with testing done by iPhone consumers  
2 (*Id.* ¶ 64) and statements made this year by an organization within the Department of Homeland  
3 Security, the U.S. Computer Emergency Readiness Team (“CERT”) (*Id.* ¶ 65). In taking  
4 Plaintiffs’ statements as true, the testing supports a showing that some iDevices, such as an iPhone  
5 7, may experience degradation in performance after the user downloads Apple’s patches through  
6 the software updates. Plaintiffs’ allegations of performance degradation in some iPhones does  
7 exist and thus is enough to establish a concrete injury at this stage. Next, the court looks to  
8 whether the concrete injury is particularized. *Spokeo*, 136 S. Ct. at 1548.

9 **b. Whether Plaintiffs’ injury is particularized**

10 A particularized injury affects “the plaintiff in a personal and individual way.” *Spokeo*,  
11 136 S. Ct. at 1548. What is fatal to Plaintiffs’ SCAC is that no facts support a showing that any  
12 named plaintiff noticed any slowdown or performance degradation after downloading Apple’s  
13 updates. SCAC ¶¶ 11, 13, 15, 17. Plaintiffs’ argument is based on a universal injury theory, as  
14 alleged in their earlier complaint. Previously, the court analyzed Plaintiffs’ alleged facts, which  
15 included industry-type testing such as the “GeekBench 4 benchmark test” against two cases:  
16 *Strumlauf v. Starbucks Corp.*, 192 F. Supp. 3d 1025 (N.D. Cal. 2016), and *John v. Whole Foods*  
17 *Mkt. Group., Inc.*, 858 F.3d 732 (2nd Cir. 2017) and found that cited testing reports supported an  
18 inference that some but not all users experienced slower performance in their iDevices. Order at  
19 8. In sum, the testing provided by Plaintiffs with regards to a degradation in performance of some  
20 iDevices after the software updates were installed, did not meet the standards for a universal-type  
21 injury as found in cases like *Strumlauf* and *Whole Foods*.

22 Plaintiffs return and add new testing facts to their SCAC to double down on their universal  
23 injury argument. Plaintiffs now move away from their previous arguments regarding benchmark  
24 testing by stating that some of the benchmark tests “do not accurately represent real world  
25 conditions and consequently do not reflect the decrease in performance an actual iDevice user  
26 experiences after upgrading to those iOS versions.” SCAC ¶ 58. Plaintiffs now put forward an  
27 example of testing real world conditions with an iPhone 7. Plaintiffs state that “an iPhone 7—the

1 same [model] phone owned by Plaintiffs Giraldi and Olson” was tested to measure the “real  
2 world” performance impact of Apple’s mitigation efforts. *Id.* at ¶ 61 (emphasis added). Plaintiffs  
3 allege that in each instance, this iPhone with the mitigated software updates performed  
4 “significantly worse” than those without the updates. *Id.*

5 Plaintiffs ask the court to infer that because the tested iPhone 7 experienced slower  
6 performance, and because all the iDevices in the class also contain the processor within the iPhone  
7 7, that all iDevices (iPhones, Apple TVs, iPads) must suffer from the same degraded performance.  
8 Dkt. No. 78 at 16. Plaintiffs allege that their iDevices are running the same iOS versions as the  
9 tested iPhone 7 and therefore they must also be “suffering from the same reduction in  
10 performance.” *Id.* at 15. Even with the new test of one iPhone 7, and even taking Plaintiffs’  
11 statement about the one iPhone’s slower performance as true, their universal injury argument is  
12 still unpersuasive. Conducting tests to a single recently purchased iPhone 7 is insufficient to infer  
13 universal injury to all iPhone 7 users and certainly not enough to support a showing of injury  
14 across all the iDevices the class seeks to represent. Plaintiffs are still without personal injury. *See*  
15 *Goodman v. HTC America, Inc.*, No. C11-1793MJP, 2012 WL 2412070 (W.D. Wash. June 26,  
16 2012) (stating that a plaintiff “must allege a distinct and palpable injury to himself, even if it is an  
17 injury shared by a large class of other possible litigants”) (quoting *Warth v. Seldin*, 422 U.S. 490,  
18 501 (1975)). In sum, Plaintiffs have failed to plead facts that any named plaintiff experienced the  
19 performance degradation that the single tested iPhone 7 experienced and thus do not plead an  
20 injury that is particularized.

21 In conclusion, Plaintiffs have not met the burden in establishing injury-in-fact based on  
22 their performance degradation argument. Plaintiffs’ second assertion of injury is based on an  
23 economic loss theory that their phones have lost value and that they paid too much for them  
24 because Apple omitted the vulnerabilities from the public.

25 **2. Injury-In-Fact Based on a Diminution in Value**

26 **a. Whether Plaintiffs’ injury is concrete**

27 Apple moves to dismiss Plaintiffs’ diminution in value theory because Plaintiffs’ new facts

1 still do not demonstrate injury-in-fact. Dkt. No. 75 at 19–21. In the Ninth Circuit, “[w]hen  
2 economic loss is predicated solely on how a product functions, and the product has not  
3 malfunctioned, the Court agrees that something more is required than simply alleging an  
4 overpayment for a ‘defective’ product.” *Cahen v. Toyota Motor Corp.*, 147 F. Supp. 3d 955, 970  
5 (N.D. Cal. 2015), *aff’d*, 717 Fed. App’x 720 (9th Cir. 2017) (unpublished) (finding class plaintiffs’  
6 economic loss theory insufficient to establish standing because plaintiffs alleged no facts to show  
7 their cars were worth less). Plaintiffs can allege something more by showing a demonstrable  
8 effect on the market for their specific product. *See id.*

9 Previously, the court found that Plaintiffs’ statement that they “would not have purchased  
10 [their] iDevices, or paid the prices they did” was not enough to establish standing under a  
11 diminution in value argument. Order at 9. Plaintiffs return alleging something more by way of a  
12 regression analysis they applied to measure the loss of value of an iPhone. Plaintiffs allege that  
13 their regression analysis showed that the prices of Plaintiffs’ iPhones decreased “on average” by  
14 more than seventy-nine dollars following Apple’s announcement about Meltdown and Spectre  
15 vulnerabilities. SCAC ¶ 78. Plaintiffs are silent regarding the other iDevices in the class such as  
16 iPads and/or AppleTVs. The issue is whether Plaintiffs’ proffered regression analysis is enough to  
17 show a demonstrable effect on the market, and thus a concrete injury at this stage.

18 An example of a demonstrable effect on the market can be seen in *In re Toyota Motor*  
19 *Corp.*, 790 F. Supp. 2d 1152, 1166 (C.D. Cal 2011). There, the economic harm theory from  
20 plaintiffs’ argument that their vehicles were worth less and that they overpaid for them because  
21 they contained a safety defect argument could be accurately measured. The plaintiffs were able to  
22 establish that although they did not experience the safety defect themselves, once the recalls from  
23 Toyota had been made public, one plaintiff’s 2007 Toyota Sienna trade-in value dropped by  
24 \$2,000 according to Kelly Blue book, an established reliable resource for automobile valuation.  
25 *Id.* at 1166. Similarly, “[a] current reduction in the economic value of one’s home is a cognizable  
26 injury for constitutional standing purposes.” *Maya v. Centex Corp.*, 658 F.3d 1060, 1070–71 (9th  
27 Cir. 2011) (finding plaintiffs sufficiently alleged that defendants had inflated the bubble in their

1 particular neighborhood, which caused them to overpay). Measuring the value of an electronic  
2 product with an unmanifested alleged defect is less clear.

3 The regression analysis conducted by Plaintiffs seeks to show a demonstrable effect on the  
4 market. The analysis covered actual transactions among consumers in the smartphone market.  
5 SCAC ¶ 77. This included data from more than 75,000 transactions from iDevices and  
6 comparable smartphones between September 1, 2017 and August 31, 2018. *Id.* The iDevices  
7 included the iPhone 6s Plus, iPhone 7, iPhone 8 Plus, and iPhone SE, which are the same models  
8 of iDevices that Plaintiffs own, along with comparable phones manufactured around the same time  
9 by Apple’s competitors, such as, the Samsung Galaxy S6, Galaxy S7, and Galaxy S8 Plus, and  
10 Google Pixel. *Id.* Plaintiffs allege they controlled for things such as like age, condition, and  
11 storage size in addition to broader economic factors such as “changes in inflation, the United  
12 States’ gross domestic product, unemployment rates, non-farm payroll numbers, and overall  
13 industrial production.” *Id.* ¶ 78.

14 Through this analysis, Plaintiffs allege, an average sale price for an iPhone 7 with 256 GB  
15 of storage, dropped more than 11.5 percent from the week prior to the news of Meltdown and  
16 Spectre to the week after. *Id.* at ¶ 73. Over a similar span of time, Plaintiffs allege, an iPhone SE  
17 dropped more than 16 percent, an iPhone 6s Plus dropped more than 18 percent, and an iPhone 8  
18 with 64 GB of storage dropped more than 13.5 percent. *Id.* ¶¶ 74–76. Plaintiffs allege that the  
19 impact on Samsung and Google phones from Apple’s January 2018 announcement was less than  
20 half of that observed for the iPhones. *Id.* ¶ 79. The result, Plaintiffs assert, is that because of  
21 Meltdown and Spectre, iPhones have declined in pricing. *Id.* at ¶ 79.

22 There does not appear to be an industry standard on measuring the value of electronics  
23 such as the iDevices in this case. Plaintiffs attempt to measure the value through its regression  
24 analysis, but it is not enough to establish a demonstrable, reliable indicator of market effect as is  
25 the case when measuring the housing market or vehicles through Kelly Blue Book. The  
26 measurement for the value of electronics in these circumstances must be more well-known or  
27 widespread.

1 Even taking Plaintiffs’ statements as true, Plaintiffs’ underlying argument is still weak.  
 2 Plaintiffs conducted this analysis surrounding Apple’s announcements about Meltdown and  
 3 Spectre—not the degraded performance—that are unmanifested vulnerabilities. As it was then, it  
 4 stands still today, that no named Plaintiff, nor any consumer of any iDevice or computer related  
 5 product—from Apple or otherwise—has seen these potential vulnerabilities exploited. Computer  
 6 manufacturers such as Apple, among others, do not advertise that their computers will be free  
 7 from defect. Moreover, Judges in this circuit refuse to find standing where plaintiffs allege a  
 8 future risk of harm unless harm is certainly impending. *Clapper v. Amnesty Intern. USA*, 568 U.S.  
 9 398 (2013); *Birdsong v. Apple*, 590 F.3d 955, 970 (9th Cir. 2009); *In re Zappos.com, Inc.*, 108 F.  
 10 Supp. 3d 949 (D. Nev. 2015); *Cahen v. Toyota Motor Corp.*, 147 F. Supp. 3d 955, 970 (N.D. Cal.  
 11 2015), *aff’d*, 717 Fed. App’x 720 (9th Cir. 2017) (unpublished); *Boysen v. Walgreen Co.*, No. 11-  
 12 cv-06262-SI, 2012 U.S. Dist. LEXIS 100528, 2012 WL 2953069, at \*7 (N.D. Cal. July 19, 2012);  
 13 *Contreras v. Toyota Motor Sales USA, Inc.*, No. 09-cv-06024-JSW, 2010 U.S. Dist. LEXIS 60479,  
 14 2010 WL 2528844, at \*1 (N.D. Cal. June 18, 2010). Thus, it is more likely Plaintiffs’ regression  
 15 analysis results are affected by other factors and not necessarily the announcement of an  
 16 unmanifested risk of harm that applies to all modern processors.

17 Plaintiffs’ reliance on *In re: Lenovo Adware Litigation* in attempt to measure the economic  
 18 value is also unpersuasive for one simple distinctive reason: unlike the circumstances in Plaintiffs  
 19 case, there was no hypothetical risk, the plaintiffs in *Lenovo* actually experienced a security breach  
 20 in their laptops. No. 15-md-02624-RMW, 2016 WL 6277245, at \*5 (N.D. Cal. Oct. 27, 2016). In  
 21 *Lenovo*, the court found that a security vulnerability actually exploited “decreased the value” of  
 22 plaintiffs’ laptops. This actual injury was enough to show they overpaid and establish standing at  
 23 the pleading stage. *Id.* at \*4. Plaintiffs’ circumstances are distinguishable because no third-party  
 24 has actually accessed their iDevices or user’s personal data by way of Meltdown or Spectre.

25 Apple also argues that Plaintiffs cannot, as a matter of law, suffer an injury-in-fact based  
 26 on a diminution in value theory where they cannot identify an alternative product that they would  
 27 have purchased. Dkt. No. 75 at 21, citing *Boysen*, 2012 WL 2953069 at \*7 n.9. In *Boysen*,

1 plaintiffs alleged that Walgreens failed to disclose the presence of “material and significant” levels  
2 of arsenic and lead in its “100% Apple Juice” and that the omission of these toxins were false and  
3 misleading. *Id.* at \*1. Plaintiffs stated that “had they known the products contained lead and  
4 arsenic” they would not have purchased the products. *Id.* The court held that plaintiff lacked  
5 standing because he did not allege that the products caused him any physical injury, that any other  
6 person had been injured, or that he would have purchased an alternate juice. *Id.* at \*7. More  
7 specifically, the court noted that “most if not all consumer fruit juices contain levels of lead and  
8 arsenic” and that it was unclear whether an alternative juice existed. *Id.* at \*7 n.9.

9 *Boysen* is similar to Plaintiffs’ circumstances in that Plaintiffs allege that had they known  
10 about the Meltdown and Spectre vulnerabilities, they would not have made their purchases.  
11 SCAC ¶¶ 84, 85. Apple advertises the “benefits, capabilities, and quality of its Processors and  
12 iDevices,” and specifically the speed of its Processors and the security of its iDevices. *Id.* ¶ 86.  
13 Even still, Plaintiffs do not allege that they personally have been harmed by the Meltdown or  
14 Spectre vulnerabilities or that anyone has been harmed by these vulnerabilities. Apple made  
15 attempts to mitigate harm by applying patches to certain iOS systems and as a result, some  
16 iPhones have experienced slowdowns, but, like in *Boysen*, none of the Plaintiffs have personally  
17 experienced these slowdowns nor have any Plaintiffs suffered any injury from the vulnerabilities  
18 Apple sought to protect its consumers from. There is nothing to show that the iDevices are not  
19 “fast” or not “safe” as advertised. Lastly, it appears undisputed that Spectre and Meltdown affect  
20 all modern processors and affect nearly all computing devices and operating systems. Thus,  
21 although Plaintiffs do add facts that Apple’s “speculative execution” and “out-of-order execution”  
22 optimization techniques are unique to Apple and create a situation in which iDevices may be more  
23 vulnerable than devices that do not use these techniques, it is unclear whether there are any phones  
24 or similar devices that are not subject to the same vulnerabilities. Thus, it is unclear whether there  
25 are smartphones that are not affected by Meltdown or Spectre.

26 In sum, Plaintiffs have not established standing. Accordingly, the court need not address  
27 the substantive claims.

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**IV. CONCLUSION AND ORDER**

For the foregoing reasons, Defendant’s motion to dismiss is GRANTED without leave to amend.

**IT IS SO ORDERED.**

Dated: August 2, 2019



EDWARD J. DAVILA  
United States District Judge