

EXHIBIT 1

**IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE**

In re:	:	Chapter 11
MALLINCKRODT PLC,	:	Case No. 20-12522 (JTD)
Reorganized Debtor. ¹	:	(Jointly Administered)
OPIOID MASTER DISBURSEMENT TRUST II,	:	
Plaintiff,	:	
vs.	:	Adversary Proceeding
ARGOS CAPITAL APPRECIATION MASTER FUND LP., <i>et al.</i> ,	:	No. 22-50435 (JTD)
Defendants.	:	

DECLARATION OF ANNE HARKIN

Anne Harkin hereby declares and states as follows:

I. Qualifications

1. I am a partner of the law firm of Mason Hayes & Curran in Dublin, Ireland, having its address at South Bank House, Barrow Street, Dublin 4, D04 TR29, Ireland. At the firm, I am a member of the Corporate team, where I advise both Irish and international businesses on a wide range of private and public company transactions. I hold a Bachelor of Civil Law degree from

¹ The Reorganized Debtor in this chapter 11 case is Mallinckrodt plc. On May 3, 2023, the Court closed the chapter 11 cases of the Reorganized Debtor's debtor-affiliates. A complete list of those affiliates may be obtained on the website of the Reorganized Debtor's claims and noticing agent at <http://restructuring.ra.kroll.com/Mallinckrodt>. The Reorganized Debtor's mailing address is 675 McDonnell Blvd., Hazelwood, Missouri 63042.

University College Dublin and a Master of Laws degree from Trinity College Dublin. I am admitted as a member of The Law Society of Ireland and I am a practicing solicitor in Ireland.

2. The Opioid Master Disbursement Trust II (“**Trust**”) retained me to provide foreign-law testimony, in accordance with Rule 44.1 of the Federal Rules of Civil Procedure, regarding the Irish company law that applied to the redemption of ordinary shares by Mallinckrodt plc (“**Mallinckrodt**”) during the period of August 4, 2015 through April 23, 2018 (“**Relevant Period**”).² I submit this declaration in connection with the Trust’s objections to the *Motion to Dismiss the Amended Complaint as to Citadel Securities LLC ad Susquehanna Securities, LLC Pursuant to the Protocol Order Relating to Conduits, Non-Transferees, “Stockbrokers,” “Financial Institutions,” “Financial Participants,” and Dissolved Entities* and the *Motion to Dismiss the Amended Complaint as to Defendants T. Rowe Price Associates, Inc. and Various T. Rowe Price Funds Pursuant to the Protocol Order Relating to Conduits, Non-Transferees, “Stockbrokers,” “Financial Institutions,” “Financial Participants,” and Dissolved Entities*. The purpose of this declaration is to outline certain provisions of Irish company law that applied to share redemptions by Irish public companies during the Relevant Period. This declaration does not extend to any further or other matter other than expressly set out herein and in particular, without limiting the foregoing, does not (i) opine on whether any or all of the Companies Act requirements in respect of share redemptions by public companies were satisfied by Mallinckrodt in respect of the redemption of its ordinary shares during the Relevant Period or (ii) address the consequences of any such share redemptions being void under Irish law.

² It is my understanding that Mallinckrodt carried out share redemptions prior to the Relevant Period too; for the purpose of my declaration, save where otherwise stated, I have only considered the legal position in relation to share redemptions under the Companies Act 2014 which came into force in Ireland on 1 June 2015.

3. My statements herein are based on my review of the documents listed in the attached **Exhibit A**, which consist of (1) Mallinckrodt's constitutional documents during the Relevant Period; (2) Mallinckrodt's filed financial statements for the years 2014 to 2018, in each case as filed with the Irish Companies Registration Office ("**CRO**") and (3) any documents which are cited in the footnotes below (collectively, "**Relevant Materials**").

II. Background

4. Mallinckrodt was formed and registered as a public limited company ("**PLC**") under the laws of the Republic of Ireland on January 9, 2013. I understand that, during the Relevant Period, Mallinckrodt and its direct and indirect subsidiaries were a global pharmaceutical enterprise and were the producers and sellers of prescription medications, including medicinal opioids, in the United States.³ Mallinckrodt's registered office is located in Dublin, Ireland.

5. From 2015 through 2018, Mallinckrodt announced and implemented a program by which it redeemed its own ordinary shares from numerous shareholders on the open market ("**Share Repurchase Program**").⁴ Based on publicly available filings, it appears that Mallinckrodt's board of directors ("**Board**") authorized the Share Repurchase Program on four separate occasions: (1) on January 23, 2015, the Board authorized \$300 million in share repurchases;⁵ (2) on November 19, 2015, the Board authorized an additional \$500 million in share repurchases;⁶ (3) on March 16, 2016, the Board authorized an additional \$350 million in share

³ See Form 10-K, Mallinckrodt, filed Nov. 24, 2015, at 7, 76.

⁴ See Form 8-K/A, Mallinckrodt, filed Jul. 1, 2022, at 45.

⁵ See Form 8-K, Mallinckrodt, filed Jan. 23, 2015; see also January 23, 2015 Press Release, available at <https://www.mallinckrodt.com/about/news-and-media/news-detail/?id=7826>.

⁶ See Form 10-K, Mallinckrodt, filed Nov. 24, 2015, at 62, 142.

repurchases;⁷ and (4) on March 1, 2017, the Board authorized an additional \$1 billion in share repurchases.⁸

6. In total, the Board authorized Mallinckrodt's repurchase of up to \$2.15 billion worth of ordinary shares.⁹ Altogether, during the Relevant Period, Mallinckrodt repurchased approximately 36 million shares for approximately \$1.6 billion.¹⁰

III. Irish Law Analysis

7. Based on my review of the Relevant Materials, and the Forms B7 and Forms H5 filed by the Company during the Relevant Period as attached hereto as **Exhibit B I** determined that Mallinckrodt's repurchases of its ordinary shares during the Relevant Period were presented as share redemptions under Irish law.

8. Being an Irish PLC, Mallinckrodt is regulated by the Irish Companies Act 2014 ("**Companies Act**") which came into force on June 1, 2015. Attached hereto as **Exhibit C** are true and authentic copies of the Companies Act provisions that are relevant to my analysis below, namely Chapter 6 of Part 3 of the Companies Act (being sections 102 to 116), sections 117, 121, 278, and 279 thereof.¹¹ Also attached hereto as **Exhibit D** is a true and authentic copy of section 1 of the Companies (Miscellaneous Provisions) Act 2009, the provisions of which were in force prior to the commencement of the Companies Act on June 1, 2015.

⁷ See Form 10-Q, Mallinckrodt, filed May 3, 2016, at 21.

⁸ See Form 10-Q, Mallinckrodt, filed May 8, 2017, at 19.

⁹ See *id.*; see also Form 10-K, Mallinckrodt, filed Nov. 24, 2015, at 43, 77.

¹⁰ See Director's Report and Consolidated Financial Statements for the Year Ended September 30, 2016, Mallinckrodt plc, filed Apr. 28, 2017, at 78; see also Director's Report and Consolidated Financial Statements for the Year Ended Dec. 28, 2018, Mallinckrodt plc, filed Oct. 29, 2019, at 115.

¹¹ The copies included in Exhibit C are the relevant provisions as amended during the Relevant Period, with the annotations outlining the nature and date of any amendments.

9. Subsection 102(1) of the Companies Act provides that, subject to the provisions of Chapter 6 of Part 3 of the Companies Act (being sections 102 to 116 of the Companies Act 2014), a company may “acquire its own fully paid shares....where those shares are redeemable shares, by redemption or purchase under section 105.” Companies Act § 102(1). Under subsection 105(1) of the Companies Act, a PLC such as Mallinckrodt “may acquire its own shares by purchase, or in the case of redeemable shares, by redemption or purchase.” *Id.* § 105(1).

10. A share redemption executed under section 105 of the Companies Act must be funded out of “profits available for distribution.” *Id.* § 105(2). In addition, it must be authorized by (a) the constitution of the relevant company; (b) the rights attaching to the shares in question; or (c) a special resolution.¹² *Id.* § 105(4).

11. Subsection 117(2) of the Companies Act defines a company’s “profits available for distribution” as “its accumulated, realised profits, so far as not previously utilised by distribution or capitalisation, less its accumulated, realised losses, so far as not previously written off in a reduction or reorganisation of capital duly made.” *Id.* § 117(2).¹³ Subsections 117(4) through 117(9) of the Companies Act stipulate the manner in which certain items in the financial statements should be treated as realized and unrealized profit and losses for the purposes of subsection 117(2). *Id.* §§ 117(4)-(9).

¹² A special resolution is one passed by not less than 75 per cent of the votes cast by members of the company concerned as, being entitled to do so, vote in person or by proxy at a general meeting of it.

¹³ There is an additional requirement under subsection 1082(1) of the Companies Act that a PLC may only make a distribution, which includes a redemption of its own shares, *id.* § 123(1)), “if at that time the amount of its net assets is not less than the aggregate of the PLC’s called-up share capital and its undistributable reserves” and “if and to the extent that, the distribution does not reduce the amount of those assets to less than that aggregate.” *Id.* § 1082(1). For the purposes of the foregoing, “undistributable reserves” are defined as a PLC’s undenominated capital, the amount by which the PLC’s accumulated, unrealised profits, so far as not previously utilized by any capitalization, exceed its accumulated, unrealised losses, so far as not previously written off in a reduction or reorganization of capital duly made and any other reserve which the PLC is prohibited from distributing by any enactment, other than one contained in Part 17 of the Companies Act, or by its constitution. *Id.* § 1082(2). However, as stated in paragraph 13 herein, acting in contravention of subsection 102(2) is sufficient for a purported acquisition to be “void.”

12. Subsection 102(2) of the Companies Act provides, in relevant part, that “a company may not acquire any of its own shares otherwise than as described in the preceding subsection,” that is, subsection 102(1). *Id.* § 102(2).

13. Subsection 102(3) of the Companies Act provides that where a company purports to act in contravention of subsection 102(2), the purported acquisition shall be “void.” *Id.* § 102(3).

14. When determining whether a PLC may redeem shares pursuant to section 105 of the Companies Act, it is necessary to consider whether there are profits available for distribution as defined in section 117 of the Companies Act; in doing so, there is a requirement that the company make reference to the “relevant items as stated in the relevant entity financial statements, and section 117 shall be treated as contravened in the case of a distribution unless the requirements of this section in relation to those statements are complied with in the case of that distribution.” *Id.* § 121(1).

15. Subsection 121(2)(a) of the Companies Act requires that the relevant entity financial statements be “the last entity financial statements, that is to say, the statutory financial statements” of the relevant company prepared in accordance with the requirements of Part 6 of the Companies Act (discussed in paragraph 17 below), which were laid before the shareholders in respect of the last preceding financial year. *Id.* § 121(2)(a). Subsection 121(3)(a) of the Companies Act further provides that the “relevant entity financial statements in the case of any distribution” must “have been properly prepared or have been so prepared subject only to matters which are not material for the purpose of determining, by reference to the relevant items as stated

in those statements, whether that distribution would be in contravention of section 117.” *Id.* § 121(3)(a).¹⁴

16. In the event that, based on the last statutory financial statements, a redemption of shares would contravene section 117 of the Companies Act in respect of the availability of profits available for distribution, subsections 121(2)(b) and 121(2)(c) of the Companies Act permit such determination to be made based on interim financial statements, provided that these have also been “properly prepared,” and that a copy of such interim financial statement has been delivered to the CRO. *Id.* §§ 121(2)(b), 121(2)(c).¹⁵

17. “Properly prepared” means “in relation to any financial statements of a company, that they have been properly prepared in accordance with the provisions of Part 6.” *Id.* § 121(7). Part 6 of the Companies Act prescribes that the Minister for Enterprise, Trade and Employment may specify by regulations the accounting standards with which such statutory financial statements are to be prepared. *Id.* § 278.

18. Part 6 of the Companies Act also permits an Irish holding company, such as Mallinckrodt, whose company securities were listed on the NYSE and other U.S. stock exchanges, to avail itself of US accounting standards (for its entity or group financial statements) for a transitional period ending December 31, 2020. *Id.* § 279 (Prior to 1 June 2015 this was permitted by section 1 of Companies (Miscellaneous Provisions) Act 2009).

¹⁴ It is a further requirement that the financial statements in question are deemed “properly prepared” by the statutory auditors of the PLC and filed at the CRO. *Id.* § 1083(6).

¹⁵ By contrast to the requirement in section 1083(6) of the Companies Act in respect of statutory financial statements, there is no such requirement for interim financial statements to be deemed “properly prepared” by a PLC’s statutory auditor. *Id.* § 1083(5).

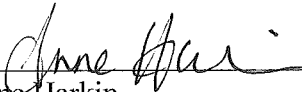
19. Based on the Relevant Materials, it would appear that the Irish consolidated and combined financial statements of the Mallinckrodt group, during the Relevant Period, were prepared on the basis of the United States Generally Accepted Accounting Principles (“US GAAP”) (pursuant to section 279 of the Companies Act).

20. In the entity financial statements of Mallinckrodt filed at the CRO, it is noted that the statements had been prepared in accordance with the Irish Generally Accepted Accounting Principles (described as “comprising the financial reporting standards issued by the Financial Reporting Council and published by the Institute of Chartered Accountants in Ireland together with the Companies Act 2014”) (“Irish GAAP”) in respect of the financial statements for the financial years ending September 26, 2014 and September 25, 2015, and the Financial Reporting Standard applicable in the U.K. and Republic of Ireland (“FRS 102”) in respect of the financial statements for the financial years ending September 30, 2016 and December 29, 2017. In addition, on June 29, 2017, Mallinckrodt filed interim accounts for the period up to March 31, 2017 which, according to the copy of the filing made to the CRO, were prepared in accordance with FRS 102.

21. In order to determine whether any redemption by Mallinckrodt of its ordinary shares during the Relevant Period contravened section 102 of the Companies Act then it must be considered whether (i) the redemption was permitted under Mallinckrodt’s constitution, the rights attaching to the shares in question or by a special resolution of Mallinckrodt’s shareholders, (ii) the relevant entity financial statements for Mallinckrodt showed sufficient profits available for distribution (as determined by section 117 of the Companies Act) at the relevant times during the Relevant Period, and (iii) whether those financial statements were properly prepared in accordance with Part 6 of the Companies Act.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

EXECUTED this 18 day of January, 2024, at Dublin, Ireland.



Anne Harkin

EXHIBIT A

Documents Reviewed by Anne Harkin

Constitutional Documents	
1.	Memorandum and Articles of Association of Mallinckrodt plc (Barcode 6080970)
2.	Memorandum of Association of Mallinckrodt plc (Barcode 6080972)
3.	Memorandum and Articles of Association of Mallinckrodt plc (Barcode 7251696)
4.	Memorandum and Articles of Association of Mallinckrodt plc (Barcode 6753884)
5.	Memorandum of Association of Mallinckrodt plc (Barcode 5443983)
Financial Statements	
6.	Mallinckrodt plc's Directors' Report and Consolidated Financial Statements for the Fiscal Year Ended September 26, 2014
7.	Mallinckrodt plc's Directors' Report and Consolidated Financial Statements for the Fiscal Year Ended September 25, 2015
8.	Mallinckrodt plc's Directors' Report and Consolidated Financial Statements for the Fiscal Year Ended September 30, 2016
9.	Mallinckrodt plc's Non-Consolidated Unaudited Interim Financial Statements for the Period Ended March 31, 2017
10.	Mallinckrodt plc's Directors' Report and Consolidated Financial Statements for the Fiscal Year Ended December 29, 2017
11.	Mallinckrodt plc's Directors' Report and Consolidated Financial Statements for the Fiscal Year Ended December 28, 2018
SEC Filings	
12.	Mallinckrodt plc's Form 8-K, filed Jan. 23, 2015
13.	Mallinckrodt plc's Form 10-K, filed Nov. 24, 2015
14.	Mallinckrodt plc's Form 10-Q, filed May 3, 2016
15.	Mallinckrodt plc's Form 10-Q, filed May 8, 2017
16.	Mallinckrodt plc's Form 8-K/A, filed July 1, 2022

EXHIBIT B

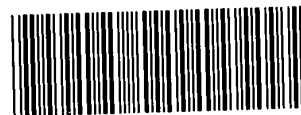
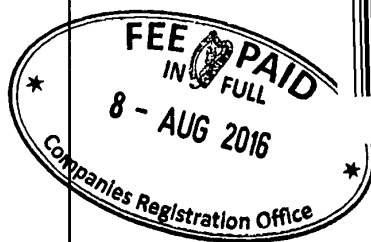
**Variation of company capital
as prescribed under**

Section 83(6) Companies Act 2014

 (This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)

Company number

5 2 2 2 2 7



6349619

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name

in full

Mallinckrodt Public Limited Company

Description of change

note one

From 1 April 2016 to 30 April 2016, the Company acquired 730 of its ordinary shares, US\$0.20 nominal value per share, such shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company retained said shares as treasury shares pursuant to section 4(b) of its Articles of Association.

Date effective

 Day Month Year
 3 0 0 4 2 0 1 6

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

Name in bold capitals or typescript

Kenneth L. Wagner

☐

Director

☒

Secretary note two

Date

4 August 2016

Presenter details

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2

Telephone

01 618 0000

Fax number

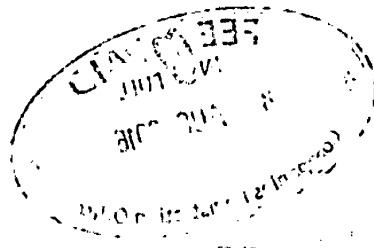
Email

cro@arthurcox.com

Contact person Ryan Cooke

Dx Number/Exchange

Reference number RC/2430/MA457/002

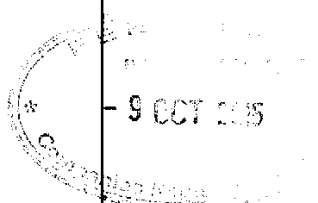


**B7**
**Variation of company capital
as prescribed under**
Section 83(6) Companies Act 2014

(This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)

Company number

5 2 2 2 2 7

**6159501**

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name

in full

Mallinckrodt public limited company

Description of
change*note one*

From 1 August 2015 to 31 August 2015, the Company acquired 642,356 of its ordinary shares, US \$0.20 nominal value per share, such shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company retained said shares as treasury shares pursuant to section 4(b) of its Articles of Association.

Date effective

Day Month Year
3 1 0 8 2 0 1 5

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

Name *in bold capitals or typescript***KENNETH L. WAGNER**

Director

Secretary *note two*

Date

6 OCTOBER 2015

Presenter details

Name

Arthur Cox

Address

Earlsfort Centre, Earlsfort Terrace

Dublin 2

Telephone

01 618 0000

Fax number 01 618 0618

Email

cosec@arthurcox.com

Contact person Ryan Cooke

Dx Number/Exchange

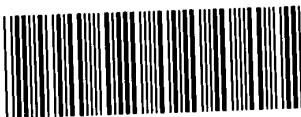
Reference number MA 457/002



B7

**Variation of company capital
as prescribed under**

Section 83(6) Companies Act

 (This form also serves as
alteration of share capital
section 92(1) Companies Act)


6439336

Company number

5 2 2 2 2 7



CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name

in full

Mallinckrodt public limited company

**Description of
change**

note one

From 1 December 2015 to 31 December 2015, the Company acquired 3,505,090 of its ordinary shares, US\$0.20 nominal value per share, such shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company retained said shares as treasury shares pursuant to section 4(b) of its Articles of Association.

Date effective

 Day Month Year
 3 1 1 2 2 0 1 5

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

Name in bold capitals or typescript

KENNETH L. WAGNER



Director



Secretary note two

Date

20 JANUARY 2016

Presenter details

 Name
 Address
 Telephone
 Email
 Dx Number/Exchange

Arthur Cox

 Earlsfort Centre, Earlsfort Terrace
 Dublin 2

Telephone 01 618 0000

Email cosec@arthurcox.com

Fax number 01 618 0618

Contact person Ryan Cooke

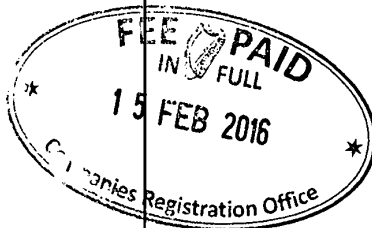
Reference number MA 457/002



B7

**Variation of company capital
as prescribed under**

Section 83(6) Companies Act 2014

 (This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)


Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name
in full

Mallinckrodt public limited company

**Description of
change**
note one

From 1 January 2016 to 31 January 2016, the Company acquired 739,645 of its ordinary shares, US\$0.20 nominal value per share, such shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company retained said shares as treasury shares pursuant to section 4(b) of its Articles of Association.

Date effective

 Day Month Year
 3 1 0 1 2 0 1 6

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

 Name *in bold capitals or typescript*

KENNETH L. WAGNER

☐ Director

☒ Secretary *note two*

Date

10 FEBRUARY 2016

Presenter details

 Name
 Address
 Telephone
 Email
 Dx Number/Exchange

Name Arthur Cox	
Address Earlsfort Centre, Earlsfort Terrace Dublin 2	
Telephone 01 618 0000	Fax number 01 618 0618
Email cosec@arthurcox.com	Contact person Ryan Cooke
Reference number MA 457/002	

**B7**
**Variation of company capital
as prescribed under**

Section 83(6) Companies Act 2014

 (This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)


Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name

in full

Mallinckrodt public limited company

Description of
change

note one

From 1 July 2015 to 31 July 2015, the Company acquired 3,434 of its ordinary shares, US\$0.20 nominal value per share, which shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company retained said shares as treasury shares pursuant to section 4(b) of its Articles of Association.

Date effective

 Day Month Year
 3 1 0 7 2 0 1 5

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

Name in bold capitals or typescript

KENNETH L. WAGNER

☐

Director

☒

Secretary note two

Date

26 AUGUST 2015

Presenter details

Name

Arthur Cox

Address

Earlsfort Centre, Earlsfort Terrace

Dublin 2

Telephone

01 618 0000

Fax number 01 618 0618

Email

cosec@arthurcox.com

Contact person Ryan Cooke

Dx Number/Exchange

Reference number MA 457/002

A handwritten signature or scribble, possibly reading "J. B. Smith", located in the lower center of the page.

**B7**
**Variation of company capital
as prescribed under**
Section 83(6) Companies Act 2014

(This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)

14 AUG 2015

Company number

5 2 2 2 2 7

**6178123**

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name

in full

Mallinckrodt public limited company

Description of
change*note one*

From 1 June 2015 to 30 June 2015, the Company acquired 4,777
of its ordinary shares, US\$0.20 nominal value per share, which shares
were deemed Redeemable Shares pursuant to section 3(e) of its
Articles of Association. The Company retained said shares as treasury
shares pursuant to section 4(b) of its Articles of Association.

Date effective

Day

Month

Year

3 0

0 6

2 0 1 5

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance
with the Notes on Completion of Form B7.

Signature

Name *in bold capitals or typescript***KENNETH L. WAGNER**☐

Director

☒Secretary *note two*

Date

11 AUGUST 2015

Presenter details

Name

Arthur Cox

Address

Earlsfort Centre, Earlsfort Terrace

Dublin 2

Telephone

01 618 0000

Fax number 01 618 0618

Email

cosec@arthurcox.com

Contact person Ryan Cooke

Dx Number/Exchange

Reference number MA 457/002

**B7**
**Variation of company capital
as prescribed under**

Section 83(6) Companies Act 2014

 (This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)

Company number

5 2 2 2 2 7

**5735715**

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name

in full

Mallinckrodt public limited company

Description of
change

note one

From 1 October 2015 to 31 October 2015, the Company acquired 405,610 of its ordinary shares, US\$0.20 nominal value per share, such shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company retained said shares as treasury shares pursuant to section 4(b) of its Articles of Association.



Date effective

 Day Month Year
 3 1 1 0 2 0 1 5

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

Name in bold capitals or typescript

KENNETH L. WAGNER



Director



Secretary note two

Date

1 DECEMBER 2015

Presenter details

Name

Arthur Cox

Address

 Earlsfort Centre, Earlsfort Terrace
 Dublin 2

Telephone

01 618 0000

Fax number 01 618 0618

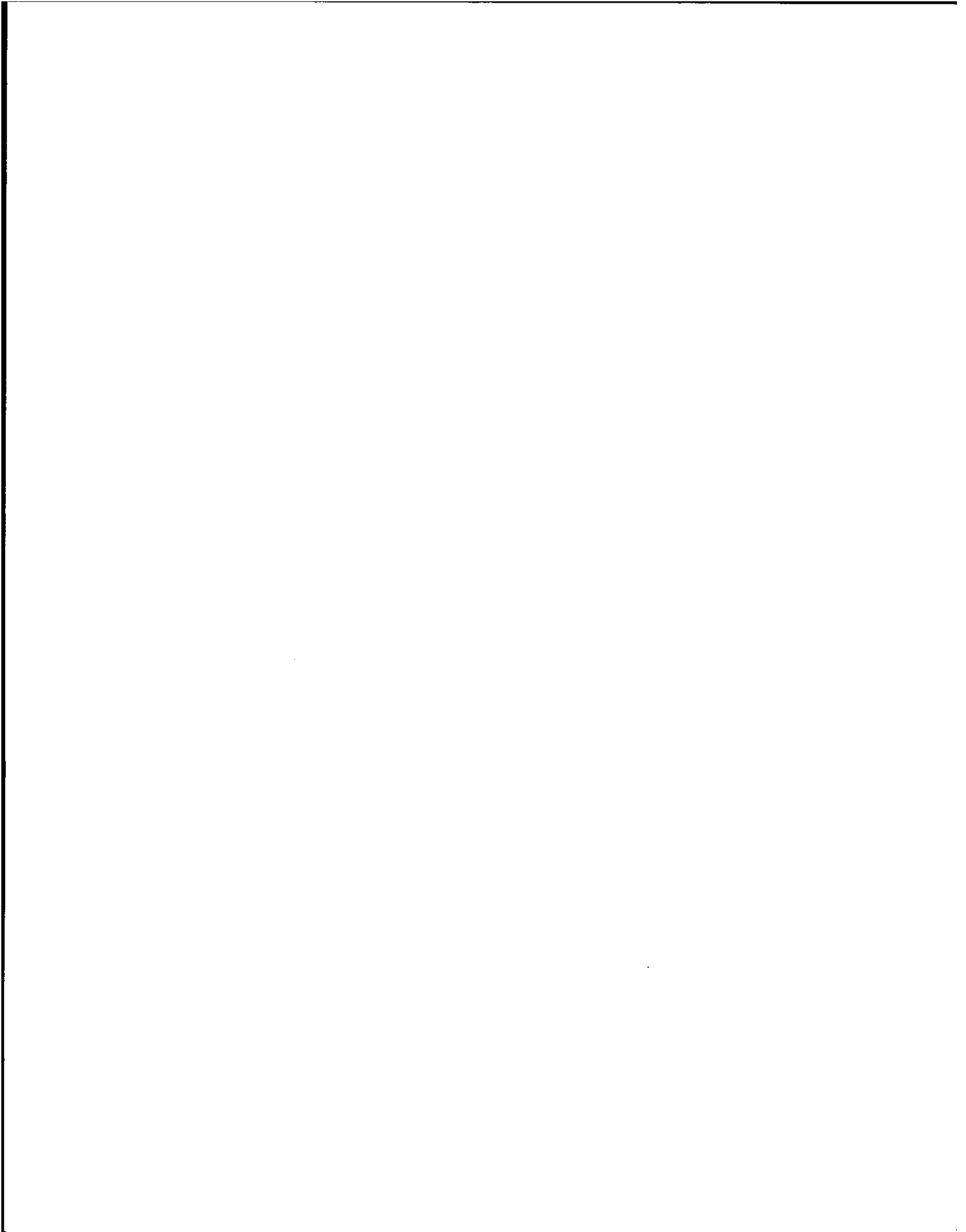
Email

cosec@arthurcox.com

Contact person Ryan Cooke

Dx Number/Exchange

Reference number MA 457/002



**B7**
**Variation of company capital
as prescribed under**

Section 83(6) Companies Act 2014

 (This form also serves as notice of
alteration of share capital under
section 92(1) Companies Act 2014)

Company number

5 2 2 2 2 7


5730772

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Company name
in full

Mallinckrodt public limited company

**Description of
change**
note one

From 1 September 2015 to 30 September 2015, the Company acquired 1,307,914 of its ordinary shares, US\$0.20 nominal value per share, such shares were deemed Redeemable Shares pursuant to section 3(e) of its Articles of Association. The Company immediately cancelled 1,117,890 shares of said shares.

The Company retained 190,024 such shares as treasury shares pursuant to section 4(b) of its Articles of Association.

Date effective

Day

Month

Year

3 0

0 9

2 0 1 5

Certification

I hereby certify that the particulars contained in this form are correct and have been given in accordance with the Notes on Completion of Form B7.

Signature

 Name *in bold capitals or typescript*
KENNETH L. WAGNER
☐

Director

☒

 Secretary *note two*

Date

23.11.15

Presenter details

Name

Arthur Cox

Address

Earlsfort Centre, Earlsfort Terrace

Dublin 2

Telephone

01 618 0000

Fax number 01 618 0618

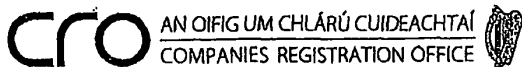
Email

cosec@arthurcox.com

Contact person Ryan Cooke

Dx Number/Exchange

Reference number MA 457/002

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

In full

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class	Number	Nominal value per share	Date(s) of delivery note one	Public companies only	
				Maximum price per share	Minimum price per share
Please see attached	Please see attached	€ Please see attached	Please see attached	€ Please see attached	€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name In bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date

11 April 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

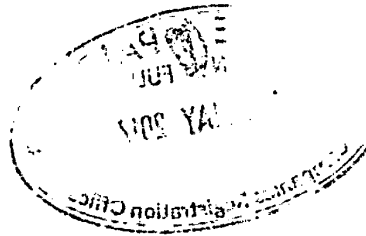
Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

Reference number MA457/002



Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	62	\$0.20	03/08/2016
Ordinary	214	\$0.20	05/08/2016
Ordinary	988	\$0.20	18/08/2016
Ordinary	1,819	\$0.20	22/08/2016

3,083

Total paid:

Maximum price per share	Minimum price per share
67.37	67.37
66.49	65.11
67.34	67.34
81.07	81.07

232,170.83

1

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



6918876

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

In full

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name In bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 11 April 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

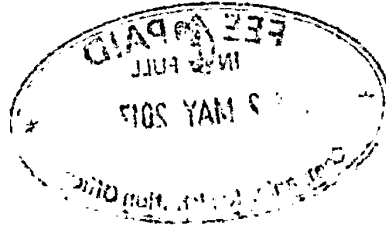
Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

Reference number MA457/002



Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	11	\$0.20	01/07/2016
Ordinary	3,821	\$0.20	06/07/2016
Ordinary	13	\$0.20	13/07/2016

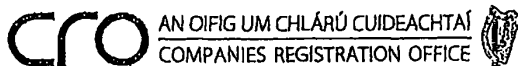
3,845

Total paid:

Maximum price per share \$	Minimum price per share \$
56.68	56.68
61.84	61.84
60.78	60.78

237,704.26

10/10/2025 10:10 AM
10/10/2025 10:10 AM
10/10/2025 10:10 AM

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



6918875

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7



Please complete using CAPITALS or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

In full

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name In bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 11 April 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

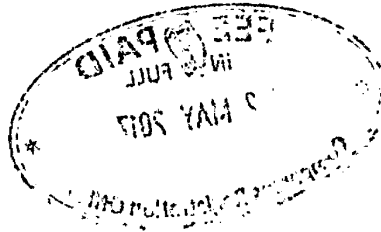
Email

cro@arthurcox.com

Contact Person P Sullivan

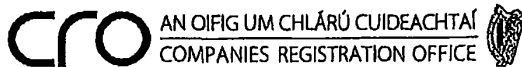
DX number/Exchange

Reference number MA457/002



Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery	Maximum price per share	Minimum price per share
Ordinary	20	\$0.20	02/06/2016	65.19	65.19
Ordinary	31,511	\$0.20	03/06/2016	63.69	63.21
Ordinary	77,126	\$0.20	06/06/2016	65.63	62.62
Ordinary	77,284	\$0.20	08/06/2016	65.30	63.83
<u>185,941</u>		Total paid:		12,001,207.15	

**H5**

*Return by a company purchasing its own shares
and/or shares in a holding company*
Section 116/1079 Companies Act 2014



Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinokrodt public limited company

In full

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 11 April 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

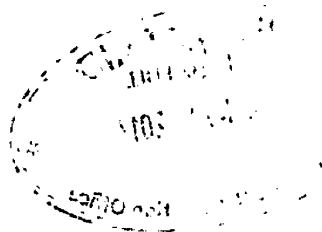
Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

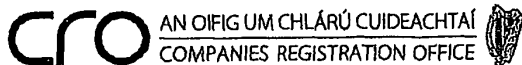
Reference number MA457/002



Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery	Maximum price per share \$	Minimum price per share \$
Ordinary	448,563	\$0.20	11/05/2016	59.38	54.53
Ordinary	213,778	\$0.20	12/05/2016	59.99	57.72
Ordinary	165,911	\$0.20	13/05/2016	61.93	59.12
Ordinary	168,974	\$0.20	16/05/2016	60.89	58.02
Ordinary	174,138	\$0.20	17/05/2016	58.85	56.39
Ordinary	62,534	\$0.20	18/05/2016	58.50	57.95
Ordinary	28,865	\$0.20	19/05/2016	58.99	58.08
Ordinary	82,492	\$0.20	23/05/2016	60.99	60.22
Ordinary	84,970	\$0.20	24/05/2016	58.99	58.44
Ordinary	3,200	\$0.20	25/05/2016	59.00	58.82
Ordinary	84,035	\$0.20	26/05/2016	59.99	59.11
Ordinary	16	\$0.20	27/05/2016	58.40	58.40
<u>1,517,476</u>				Total paid:	88,298,333.35

✓
•
•
•

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

In full

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A Includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

Shares are held as
Treasury Shares

or

☐ Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid

Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller



Director



Secretary

Date

11 April 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

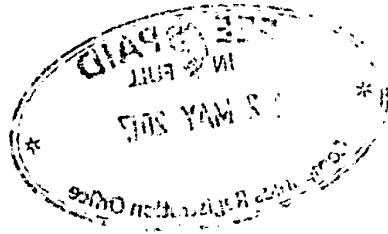
Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

Reference number MA457/002



Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	1,600	\$0.20	03/10/2016
Ordinary	110	\$0.20	03/10/2016
Ordinary	144,275	\$0.20	04/10/2016
Ordinary	123,804	\$0.20	05/10/2016
Ordinary	142,147	\$0.20	06/10/2016
Ordinary	141,170	\$0.20	07/10/2016
Ordinary	140,952	\$0.20	11/10/2016
Ordinary	144,962	\$0.20	12/10/2016
Ordinary	140,764	\$0.20	13/10/2016
Ordinary	144,192	\$0.20	13/10/2016
Ordinary	145,965	\$0.20	14/10/2016
Ordinary	387	\$0.20	17/10/2016
Ordinary	74,336	\$0.20	17/10/2016
Ordinary	9	\$0.20	21/10/2016
Ordinary	144	\$0.20	31/10/2016

1,344,817

Total paid:

Maximum price per share	Minimum price per share
70.00	69.86
69.78	69.78
70.00	68.41
70.00	68.53
71.14	69.49
71.69	70.22
71.54	69.99
70.20	67.76
70.17	68.59
70.17	68.59
70.27	67.88
69.78	69.78
68.82	66.52
69.79	69.79
69.78	69.78

93,795,998.18

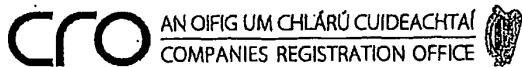
.

.

.

.

.

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



6918877

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

In full

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

Shares are held as
Treasury Shares

or

☐ Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid.

Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director

☒ Secretary

Date

11 April 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

Reference number MA457/002



Company number 522227
Attachment to H5 form

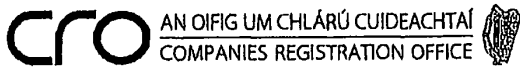
Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	176,027	\$0.20	02/09/2016
Ordinary	201,498	\$0.20	06/09/2016
Ordinary	30,186	\$0.20	07/09/2016
Ordinary	271,955	\$0.20	08/09/2016
Ordinary	509	\$0.20	15/09/2016

680,175

Total paid:

Maximum price per share	Minimum price per share
75.00	74.13
74.93	73.81
74.99	74.18
74.82	72.42
74.54	72.42

50,471,977.79

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



6918873

Company number

S 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

In full

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 11 April 2017

Presenter details

note two

Name

Address

Telephone number

Email

DX number/Exchange

Arthur Cox

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

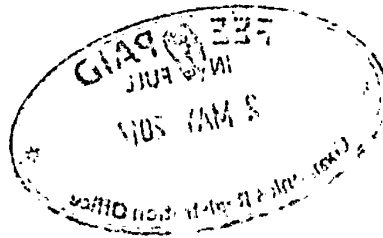
(01) 6180000

Fax number

cro@arthuroox.com

Contact Person P Sullivan

Reference number MA457/002



Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery	Maximum price per share	Minimum price per share
Ordinary	67	\$0.20	29/11/2016	65.91	65.91
	<u>67</u>			Total paid: 4,415.97	

2

2

2

2

2

2

2


H5

**Return by a company purchasing its own shares
and/or shares in a holding company**
 Section 116/1079 Companies Act 2014



6966215

Company number

5	2	2	2	2	7
---	---	---	---	---	---

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

**Name of company
purchasing shares**

Mallinckrodt public limited company

in full

Part A-Summary
 note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class	Number	Nominal value per share	Date(s) of delivery note one	Public companies only	
				Maximum price per share	Minimum price per share
Please see attached	Please see attached	€ Please see attached	Please see attached	€ Please see attached	€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
 Where shares are held as treasury shares, Form B7 is not required.
 Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

 Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date

22 Aug 2017

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

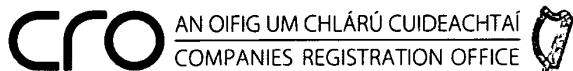
Contact Person E Quigley

DX number/Exchange

Reference number MA457/002



Share class	Number	Nominal value per share	Date of Delivery	Max price per share	Min price per share
Ordinary	4,086.00	0.2	05/07/2017	44.81	44.81
Ordinary	1.00	0.2	20/07/2017	124	124
Ordinary	13.00	0.2	28/07/2017	44.51	44.51
Total share	4,100.00		Total paid	183,796.29	

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

**Name of company
purchasing shares**

in full

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class	Number	Nominal value per share	Date(s) of delivery note one	Public companies only Maximum price per share	Minimum price per share
Please see attached	Please see attached	€ Please see attached	Please see attached	€ Please see attached	€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

STEPHANIE D MILLER
☐ Director ☒ Secretary

Date 4 DEC 2017

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Email

cro@arthurcox.com

DX number/Exchange

Fax number

Contact Person E Quigley

Reference number MA457/002

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

.

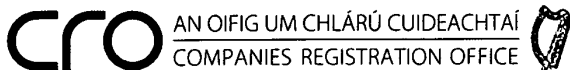
.

.

Share class	Number	Nominal value per share	Date of Delivery		Max price per share	Min price per share
					\$	\$
Ordinary	3,385	0.2	03/10/2017		37.37	37.37
Ordinary	263	0.2	12/10/2017		34.27	34.27
Ordinary	68,033	0.2	17/10/2017		34.73	33.19
Ordinary	44,992	0.2	19/10/2017		37.36	31.51
Ordinary	28,939	0.2	20/10/2017		32.46	31.78
Ordinary	24,954	0.2	23/10/2017		32.9	31.73
Ordinary	3,966	0.2	24/10/2017		32.87	31.95
Ordinary	159,550	0.2	25/10/2017		32.15	30.77
Ordinary	161,822	0.2	26/10/2017		31.2	30.33
Ordinary	159,630	0.2	27/10/2017		31.93	30.91
Ordinary	54,748	0.2	30/10/2017		31.8	30.965
Total Shares	710,282		Total paid	\$22,431,955.52		

•
•

-

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



6244012



Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

**Name of company
purchasing shares**

in full

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class	Number	Nominal value per share	Date(s) of delivery note one	Public companies only	
				Maximum price per share	Minimum price per share
Please see attached	Please see attached	€ Please see attached	Please see attached	€ Please see attached	€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

STEPHANIE D MILLER

☐

Director

☒

Secretary

Date

4 DEC 2017

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

Contact Person E Quigley

DX number/Exchange

Reference number MA457/002

' ,

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :

--

Summary detailsParticulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :

--

Summary detailsParticulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

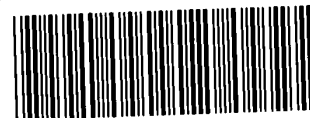
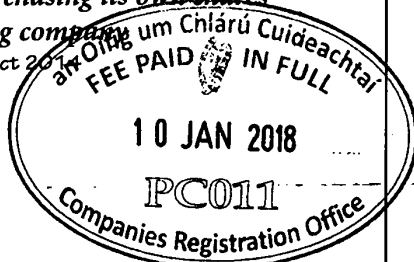
Share class	Number	Nominal value per share	Date of delivery		Max price per share	Min price per share
					\$	\$
Ordinary	128,345	0.2	01/09/2017		39.29	38.18
Ordinary	178,594	0.2	05/09/2017		39.64	38.71
Ordinary	105,300	0.2	07/09/2017		41.70	40.45
Ordinary	273,892	0.2	07/09/2017		41.31	35.10
Ordinary	147,773	0.2	20/09/2017		34.60	33.63
Ordinary	79,753	0.2	21/09/2017		34.16	33.61
Total Shares	913,657		Total paid		\$34,019,862.48	



H5

Return by a company purchasing its own shares
and/or shares in a holding company

Section 116/1079 Companies Act 2014



6244327

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

in full

Mallinckrodt public limited company

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

Shares are held as
Treasury Shares

or

Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid

Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

--	--	--	--	--	--	--	--

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

STEPHANIE D MILLER



Director



Secretary

Date

20 DEC 2017

Presenter details

note two

Name

Address

Telephone number

Email

DX number/Exchange

Arthur Cox	
10 Earlsfort Terrace, Dublin 2, D02 T380	
(01) 920 1000	Fax number
cro@arthurcox.com	Contact Person E Quigley
	Reference number MA457/002



Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :

--

Summary detailsParticulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

--

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :

--

Summary detailsParticulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

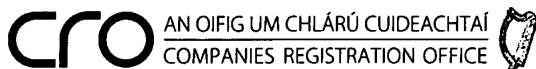
If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

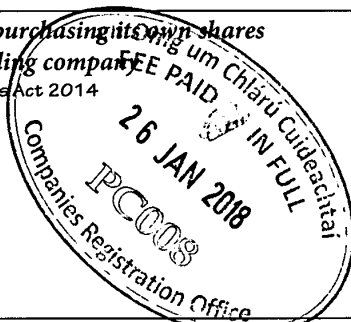
Total Paid

--

Share class	Number	Nominal value per share	Date of Delivery		Max price per share	Min price per share
					\$	\$
Ordinary	105	0.2	02/11/2017		32.06	32.06
Ordinary	233,476	0.2	09/11/2017		32.42	19.00
Ordinary	253,257	0.2	10/11/2017		20.96	19.00
Ordinary	236,919	0.2	13/11/2017		22.30	19.87
Ordinary	420,000	0.2	14/11/2017		22.77	21.12
Ordinary	624,777	0.2	15/11/2017		22.24	21.10
Ordinary	1,000,000	0.2	16/11/2017		22.09	20.81
Ordinary	400,000	0.2	17/11/2017		22.48	21.74
Ordinary	224,499	0.2	20/11/2017		30.88	21.94
Ordinary	200,000	0.2	21/11/2017		22.57	22.07
Ordinary	600,000	0.2	22/11/2017		22.12	21.15
Ordinary	400,000	0.2	24/11/2017		22.16	21.34
Ordinary	400,000	0.2	27/11/2017		21.58	20.30
Ordinary	300,000	0.2	29/11/2017		21.94	21.29
Ordinary	350,000	0.2	30/11/2017		22.07	21.43
Total Shares	5,643,033		Total Paid		\$121,957,477.02	

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

**Name of company
purchasing shares**

in full

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one**Public companies only**Maximum price
per shareMinimum price
per share

Please see attached	Please see attached	€ Please see attached	Please see attached	€ Please see attached	€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

STEPHANIE D MILLER

☐ Director ☒ Secretary

Date 23 JAN 2018

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

Contact Person E Quigley

DX number/Exchange

Reference number MA457/002



Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid



Share Class	Number	Nominal Value per share	Date of delivery		Max price per share	Min price per share
					\$	\$
Ordinary	300,068	0.2	01/12/2017		22.99	21.91
Ordinary	250,000	0.2	04/12/2017		22.74	21.7
Ordinary	350,000	0.2	05/12/2017		22.07	21.07
Ordinary	250,000	0.2	07/12/2017		22.21	21.57
Ordinary	200,000	0.2	08/12/2017		21.7	21.39
Ordinary	140,000	0.2	13/12/2017		23.84	22.375
Ordinary	140,005	0.2	14/12/2017		24.54	21.82
Ordinary	140,000	0.2	15/12/2017		24.62	23.84
Ordinary	140,000	0.2	18/12/2017		24.34	22.98
Ordinary	140,000	0.2	19/12/2017		23.98	23.05
Ordinary	140,000	0.2	20/12/2017		23.92	23.26
Ordinary	140,370	0.2	21/12/2017		24.15	21.73
Ordinary	140,000	0.2	22/12/2017		24.22	23.2
Ordinary	140,000	0.2	26/12/2017		23.82	23.3
Ordinary	140,000	0.2	27/12/2017		24.1	23.16
Ordinary	140,000	0.2	28/12/2017		24.8	23.23
Ordinary	140,000	0.2	29/12/2017		24.01	23.16
Total Shares	3,030,443		Total paid		\$69,432,265.08	



NOTES ON COMPLETION OF FORM H5

These notes should be read in conjunction with the relevant legislation.

General This form must be completed correctly, in full and in accordance with the following notes. Every section of the form must be completed. Where "not applicable", "nil" or "none" is appropriate, please state. Where the space provided on Form H5 is considered inadequate, the information should be presented on a continuation in the same format as the relevant section in the form. The use of a continuation sheet must be so indicated on the form.

note one This is the date of delivery of the shares to the company. Shares delivered to the company on different dates and under different contracts may be included in the one return.

note two This section must be completed by the person who is presenting Form H5 to the CRO. This may be either the applicant or a person on his/her behalf.

note three Part A includes where shares are purchased by a private company, and also by a public limited company (plc.) and where shares were purchased on the Irish Stock Exchange. Part B should be completed if the shares were purchased on a recognised securities market outside the State.

A recognised securities market for the purposes of Part 17 of the Companies Act 2014 is a market, whether inside or outside the State, prescribed by the Minister for Jobs, Enterprise and Innovation. A purchase by a company that issues shares, or by a subsidiary of that company, of the first-mentioned company's shares is an "overseas market purchase" if the shares are purchased on a regulated market or another market recognised for the purposes of 1072 being in either case, a market outside the State and are subject to a marketing arrangement. (Section 1072 Companies Act 2014).

Further information

Recognised Securities Markets In addition to the Irish Stock Exchange, the currently prescribed securities markets are:
NASDAQ - NASDAQ Stock Market Incorporated
LSE - London Stock Exchange
NYSE - New York Stock Exchange

CRO address When you have completed and signed the form, please file with the CRO. The Public Office is at 14 Parnell Square, Dublin 1. The DX number for the CRO is 145001.

If submitting by post, please send with the prescribed fee to the Registrar of Companies at:

Companies Registration Office, O'Brien Road, Carlow, County Carlow

Payment If paying by cheque, postal order or bank draft, please make the fee payable to the Companies Registration Office. Cheques or bankdrafts must be drawn on a bank in the Republic of Ireland.

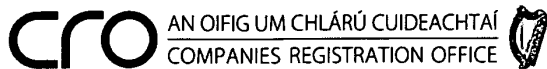
Please *carefully* study the explanatory notes above. A Form H5 that is not completed correctly or is not accompanied by the correct fee is liable to be rejected and returned to the presenter by the CRO pursuant to section 898 Companies Act 2014. Unless the document, duly corrected, is relodged in the CRO within 14 days, it will be deemed to have never been delivered to the CRO.

FURTHER INFORMATION ON COMPLETION OF FORM H5, INCLUDING THE PRESCRIBED FEE, IS AVAILABLE FROM www.cro.ie OR BY E-MAIL info@cro.ie

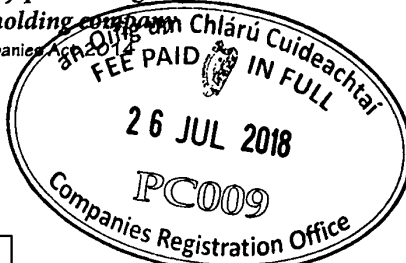


11-11-2025

11-11-2025

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2015



6279216

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

in full

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D Miller

☐ Director ☒ Secretary

Date

23 July 2018

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

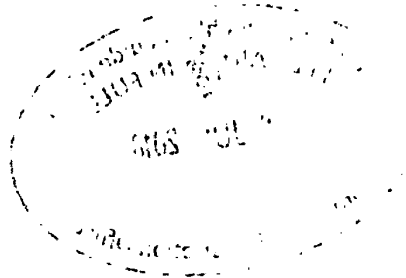
Email

cro@arthurcox.com

Contact Person E Quigley

DX number/Exchange

Reference number MA457/002



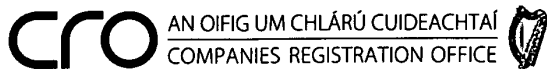
Share Class	Number	Nominal Value per share	Date of delivery		Max price per share	Min price per share
					\$	\$
Ordinary	140,000	0.2	02/01/2018		23.52	22.72
Ordinary	101,184	0.2	03/01/2018		23.52	22.5
Ordinary	19,465	0.2	04/01/2018		23.7	23.11
Ordinary	10,152	0.2	05/01/2018		23.4	23.4
Ordinary	1,419	0.2	10/01/2018		22.4	22.4
Ordinary	9	0.2	22/01/2018		22.9	22.9
Ordinary	1,579	0.2	25/01/2018		22.56	22.56
Total Shares	273,808		Total paid	\$6,300,526.87		

11

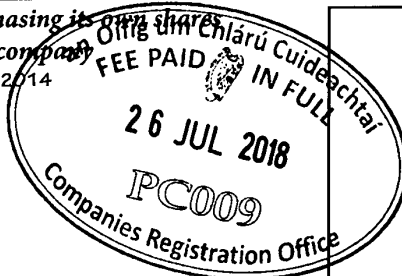
11

11

11

**H5**

Return by a company purchasing its own shares
and/or shares in a holding company
Section 116/1079 Companies Act 2014



6279218

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

in full

Mallinckrodt public limited company

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D Miller

☐ Director ☒ Secretary

Date

23 July 2018

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

Contact Person

E Quigley

DX number/Exchange

Reference number

MA457/002



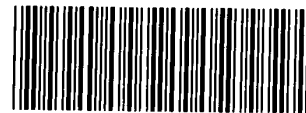
Share Class	Number	Nominal Value per share	Date of delivery		Max price per share	Min price per share
					\$	\$
Ordinary	19,139	0.2	02/03/2018		15.68	15.68
Ordinary	3	0.2	06/03/2018		16.02	16.02
Ordinary	143,942	0.2	14/03/2018		16.83	16.19
Ordinary	310,100	0.2	15/03/2018		16.39	15.97
Ordinary	313,853	0.2	16/03/2018		16.29	15.67
Ordinary	315,531	0.2	19/03/2018		16.19	15.61
Ordinary	165,797	0.2	20/03/2018		16.34	15.67
Ordinary	602	0.2	21/03/2018		16.68	16.68
Ordinary	214,275	0.2	22/03/2018		15.24	14.19
Ordinary	33,110	0.2	23/03/2018		14.9	14.47
Ordinary	346,353	0.2	26/03/2018		14.71	14.29
Ordinary	353,837	0.2	27/03/2018		14.44	13.81
Ordinary	356,400	0.2	28/03/2018		14.25	13.87
Ordinary	101,405	0.2	29/03/2018		14.44	13.82
Total shares	2,674,347		Total Paid		\$40,310,297.32	

2025-03-07

2025-03-07

2025-03-07

Return by a company purchasing its own shares
 and/or shares in a holding company
 Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

in full

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one

Public companies only

Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

Shares are held as
Treasury Shares

or

☐ Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
 Where shares are held as treasury shares, Form B7 is not required.
 Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
 company for shares which relate to
 this return:

Total Paid

Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D Miller



Director



Secretary

Date

23 July 2018

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

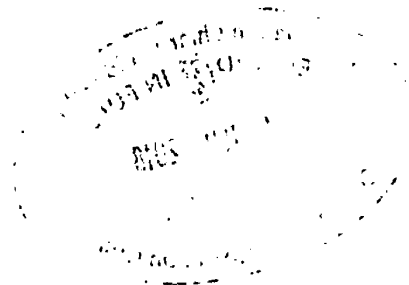
Contact Person

E Quigley

DX number/Exchange

Reference number

MA457/002



Share Class	Number	Nominal Value per share	Date of delivery		Max price per share	Min price per share
					\$	\$
Ordinary	207	0.2	05/02/2018		22.39	22.39
Ordinary	759	0.2	05/02/2018		23.50	23.50
Total shares	966		Total paid	\$22,471.23		

2025

1

**Return by a company purchasing its own shares
 and/or shares in a holding company**

Section 116/1079 Companies Act 2014



Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

in full

Mallinckrodt public limited company

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one**Public companies only**Maximum price
per shareMinimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7. Where shares are held as treasury shares, Form B7 is not required. Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
 current officer of
 the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D Miller

☐ Director ☒ Secretary

Date 25 July 2017

Presenter details

note two

Name

Address

Telephone number

Email

DX number/Exchange

Arthur Cox	
10 Earlsfort Terrace, Dublin 2, D02 T380	
(01) 920 1000	Fax number
cro@arthurcox.com	Contact Person E Quigley
	Reference number MA457/002



Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐Shares are held as
Treasury Shares

or

☐Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐Shares are held as
Treasury Shares

or

☐Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid

Company number 522227
Attachment to H5 form

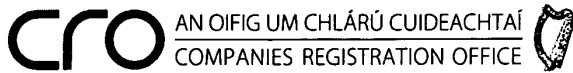
Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	310	\$0.20	01/06/2017
Ordinary	116126	\$0.20	05/06/2017
Ordinary	248775	\$0.20	08/06/2017
Ordinary	59704	\$0.20	09/06/2017
Ordinary	76024	\$0.20	12/06/2017
Ordinary	2926	0.2	20/06/2017
Ordinary	52	0.2	28/06/2017

Maximum price per share	Minimum price per share
42.37	42.37
44.24	42.87
62.29	38.83
40.49	39.15
40.58	38.8
65.11	65.11
41.49	41.44

503,917

Total paid:

20,575,663.41

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5	2	2	2	2	7	
---	---	---	---	---	---	--

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

in full

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note oneMaximum price
per shareMinimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

--	--	--	--	--	--	--

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D Miller

☐ Director ☒ Secretary

Date 25 July 2017**Presenter details**

note two

Name

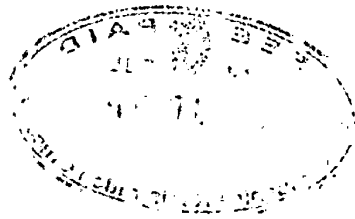
Address

Telephone number

Email

DX number/Exchange

Arthur Cox	
10 Earlsfort Terrace, Dublin 2, D02 T380	
(01) 920 1000	Fax number
cro@arthurcox.com	Contact Person E Quigley
Reference number MA457/002	



Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase	Maximum price per share	Minimum price per share
		€	<i>note one</i>	€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase	Maximum price per share	Minimum price per share
		€	<i>note one</i>	€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	223,805	\$0.20	15/05/2017
Ordinary	80,664	\$0.20	16/05/2017
Ordinary	145,682	\$0.20	17/05/2017
Ordinary	106,170	\$0.20	18/05/2017
Ordinary	219,765	\$0.20	19/05/2017
Ordinary	117,095	\$0.20	22/05/2017
Ordinary	370,000	\$0.20	24/05/2017
Ordinary	123,308	\$0.20	25/05/2017
Ordinary	253,225	\$0.20	26/05/2017
Ordinary	110,581	\$0.20	30/05/2017

1,750,295

Total paid:

Maximum price per share	Minimum price per share
45.21	44.03
46.42	44.50
46.89	45.29
47.82	46.52
46.84	44.75
44.94	41.93
41.21	39.50
46.79	40.00
40.13	38.81
40.35	39.21

74,869,052.20

AC

0.0000

0.0000



H5

**Return by a company purchasing its own shares
and/or shares in a holding company**

Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5	2	2	2	2	7	
---	---	---	---	---	---	--

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

in full

Mallinckrodt public limited company

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per share

Date(s) of delivery
note one

Public companies only

Maximum price
per share

Minimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

--	--	--	--	--	--	--

Certification by a
current officer of
the company

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

STEPHANIE D MILLER

☐ Director ☒ Secretary

Date **26 JULY 2018**

Presenter details

note two

Name

Address

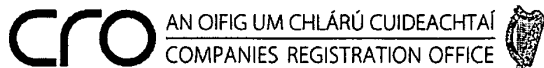
Telephone number

Email

DX number/Exchange

Arthur Cox	
10 Earlsfort Terrace, Dublin 2, D02 T380	
(01) 920 1000	Fax number
cro@arthurcox.com	Contact Person E Quigley
Reference number MA457/002	

Share Class	Number	Nominal Value per share	Date of delivery		Max price per share \$	Min price per share \$
Ordinary	933	0.2	03/04/2018		14.48	14.48
Ordinary	181,958	0.2	04/04/2018		16.09	13.70
Ordinary	28,061	0.2	05/04/2018		14.46	13.64
Ordinary	235,307	0.2	16/04/2018		14.84	13.32
Ordinary	144,780	0.2	17/04/2018		14.00	13.51
Ordinary	7,304	0.2	18/04/2018		14.48	13.58
Ordinary	105,625	0.2	24/04/2018		14.03	13.53
Ordinary	27,890	0.2	25/04/2018		13.65	13.05
Ordinary	864	0.2	26/04/2018		16.09	13.79
Total Shares	732,722		Total paid		\$10,032,820.34	

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



6992005

CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

**Name of company
purchasing shares**

Mallinckrodt public limited company

in full

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one**Public companies only**Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached

€ Please see
attached

Please see
attached

€ Please see
attached

€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 30 June 2017

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

Contact Person E Quigley

DX number/Exchange

Reference number MA457/002

22 2 2

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:Total Paid

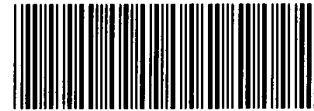
Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery	Maximum price per share	Minimum price per share
Ordinary	499	\$0.20	03/04/2017	44.57	43.09
Ordinary	4,061	\$0.20	04/04/2017	44.57	44.57
Ordinary	54,120	\$0.20	06/04/2017	45.12	43.73
Ordinary	69,145	\$0.20	07/04/2017	44.21	43.33
Ordinary	224	\$0.20	13/04/2017	44.57	44.57
Ordinary	305	\$0.20	20/04/2017	51.55	51.55
Ordinary	771	\$0.20	21/04/2017	44.57	44.57
Ordinary	117	\$0.20	25/04/2017	52.42	44.16
Ordinary	84	\$0.20	26/04/2017	44.82	44.82
<u>129,326</u>		Total paid		5,678,495.89	

11

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/11079 Companies Act 2014



6992002

Company number

5 2 2 2 2 7



CRO receipt date stamp & barcode

**Name of company
purchasing shares**

In full

Please complete using **black typescript** or **BOLD CAPITALS**, referring to explanatory notes

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one**Public companies only**Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 30 June 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

Reference number MA457/002

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 or
 ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
 Where shares are held as treasury shares, Form B7 is not required.
 Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 or
 ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
 Where shares are held as treasury shares, Form B7 is not required.
 Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:Total Paid

Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	2,997	\$0.20	05/12/2016
Ordinary	280,829	\$0.20	06/12/2016
Ordinary	278,350	\$0.20	07/12/2016
Ordinary	187,039	\$0.20	08/12/2016
Ordinary	113,269	\$0.20	09/12/2016
Ordinary	194,314	\$0.20	12/12/2016
Ordinary	72,486	\$0.20	13/12/2016
Ordinary	95,247	\$0.20	14/12/2016

1,224,531

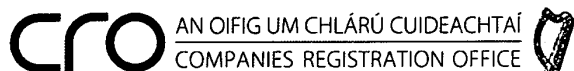
Total paid:

Maximum price per share Minimum price per share

53.61	53.61
54.10	52.53
54.25	53.12
53.95	53.10
59.77	52.82
51.90	50.72
51.75	51.20
52.73	52.09

64,941,411.69

b
...

**H5**
**Return by a company purchasing its own shares
and/or shares in a holding company**

Section 116/1079 Companies Act 2014



6992003

Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

**Name of company
purchasing shares**

in full

Mallinckrodt public limited company

Part A-Summary

note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one
Public companies only
Maximum price
per shareMinimum price
per share

Please see attached

Please see attached

€ Please see attached

Please see attached

€ Please see attached

€ Please see attached

Please tick as appropriate:

Shares are held as
Treasury Shares

or

Shares are cancelled after
repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid

Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller



Director



Secretary

Date

30 June 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

Email

cro@arthurcox.com

Contact Person

P Sullivan

DX number/Exchange

Reference number

MA457/002

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Company number 522227
Attachment to H5 form

Share class Number Nominal value per share Date(s) of Delivery

Maximum price per share Minimum price per share

Ordinary	223	\$0.20	01/02/2017
Ordinary	102	\$0.20	02/02/2017
Ordinary	65	\$0.20	03/02/2017
Ordinary	1,397	\$0.20	13/02/2017
Ordinary	506,655	\$0.20	15/02/2017
Ordinary	302,585	\$0.20	16/02/2017
Ordinary	48,783	\$0.20	17/02/2017
Ordinary	231,165	\$0.20	21/02/2017
Ordinary	382,330	\$0.20	22/02/2017
Ordinary	278,853	\$0.20	23/02/2017
Ordinary	370,009	\$0.20	24/02/2017
Ordinary	91,723	\$0.20	27/02/2017
Ordinary	263,335	\$0.20	28/02/2017

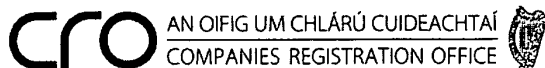
2,477,225

Total paid

46.08	46.08
48.99	48.99
53.19	53.19
47.07	47.07
49.85	48.34
49.90	48.80
50.49	49.25
52.87	50.40
53.00	51.39
54.85	52.15
54.54	52.96
54.69	54.18
54.75	49.82

128,765,004.96

6

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

in full

Mallinckrodt public limited company

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one**Public companies only**Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached

€ Please see
attached

Please see
attached

€ Please see
attached

€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 30 June 2017

Presenter details

note two

Name

Arthur Cox

Address

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

Telephone number

(01) 6180000

Fax number

Email

cro@arthurcox.com

Contact Person P Sullivan

DX number/Exchange

Reference number MA457/002

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	41,035	\$0.20	03/01/2017
Ordinary	9,300	\$0.20	05/01/2017
Ordinary	1,008	\$0.20	11/01/2017
Ordinary	166,405	\$0.20	23/01/2017
Ordinary	2,100	\$0.20	24/01/2017
Ordinary	46,602	\$0.20	25/01/2017
Ordinary	26,925	\$0.20	27/01/2017
Ordinary	395	\$0.20	31/01/2017

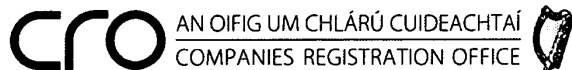
293,770

Total paid:

Maximum price per share	Minimum price per share
49.82	49.82
53.19	53.19
53.55	53.55
47.32	43.13
47.32	46.64
47.32	47.01
44.83	44.18
53.75	53.19

13,816,808.19

2

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



CRO receipt date stamp & barcode

Company number

5 2 2 2 2 7

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notes

Name of company
purchasing shares

Mallinckrodt public limited company

in full

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return is to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class

Number

Nominal value
per shareDate(s) of delivery
note one**Public companies only**Maximum price
per shareMinimum price
per share

Please see attached

Please see
attached€ Please see
attachedPlease see
attached€ Please see
attached€ Please see
attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D. Miller

☐ Director ☒ Secretary

Date 30 June 2017

Presenter details

note two

Name

Address

Telephone number

Email

DX number/Exchange

Arthur Cox

Arthur Cox Building, Earlsfort Terrace, Dublin 2, D02 CK83

(01) 6180000

cro@arthurcox.com

Fax number

Contact Person P Sullivan

Reference number MA457/002

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the company for shares which relate to this return:

Total Paid

Company number 522227
Attachment to H5 form

Share class	Number	Nominal value per share	Date(s) of Delivery
Ordinary	185,442	\$0.20	01/03/2017
Ordinary	41,047	\$0.20	02/03/2017
Ordinary	384,849	\$0.20	08/03/2017
Ordinary	194,844	\$0.20	09/03/2017
Ordinary	302,988	\$0.20	10/03/2017
Ordinary	100,793	\$0.20	14/03/2017
Ordinary	38,200	\$0.20	17/03/2017
Ordinary	46,034	\$0.20	20/03/2017
Ordinary	79,275	\$0.20	21/03/2017
Ordinary	106,100	\$0.20	22/03/2017
Ordinary	107,143	\$0.20	23/03/2017
Ordinary	335,969	\$0.20	24/03/2017
Ordinary	354,632	\$0.20	27/03/2017
Ordinary	345,299	\$0.20	28/03/2017
Ordinary	230,860	\$0.20	29/03/2017
Ordinary	31,449	\$0.20	30/03/2017
Ordinary	9,912	\$0.20	31/03/2017

Maximum price per share	Minimum price per share
54.71	47.07
54.25	51.55
52.88	51.59
51.63	50.85
49.99	48.33
49.83	49.39
49.41	47.92
48.80	47.07
49.29	47.52
48.00	46.85
47.05	46.35
46.66	44.00
51.55	41.57
43.99	42.54
43.86	42.73
52.42	42.80
48.59	43.82

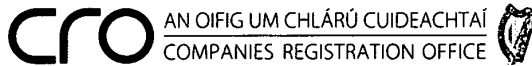
2,894,836

Total paid:

136,908,590.12

10

1

**H5**

**Return by a company purchasing its own shares
and/or shares in a holding company**
Section 116/1079 Companies Act 2014



Company number

5 2 2 2 2 7

CRO receipt date stamp & barcode

Please complete using black typescript or BOLD CAPITALS, referring to explanatory notesName of company
purchasing shares

Mallinckrodt public limited company

in full

Part A-Summary
note three

Particulars of shares purchased by the company under section 105 or 114 of the Companies Act 2014, other than where an overseas market purchase. This return to be made within 30 days of the delivery, to the company, of the shares purchased. Part A includes (but not limited to) shares purchased on the Irish Stock Exchange. Part B should only be completed where shares are purchased on a recognised overseas securities market.

Share class	Number	Nominal value per share	Date(s) of delivery note one	Public companies only	
				Maximum price per share	Minimum price per share
Please see attached	Please see attached	€ Please see attached	Please see attached	€ Please see attached	€ Please see attached

Please tick as appropriate:

☒ Shares are held as Treasury Shares or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:

Total Paid Please see attached

Where shares are purchased in a holding company:

Company Name

Company number

**Certification by a
current officer of
the company**

I hereby certify that the particulars contained in this form are correct.

Signature

Name in bold capitals or typescript

Stephanie D Miller

☐ Director ☒ Secretary

Date 6 OCT 2017

Presenter details

note two

Name

Arthur Cox

Address

10 Earlsfort Terrace, Dublin 2, D02 T380

Telephone number

(01) 920 1000

Fax number

Email

cro@arthurcox.com

Contact Person E Quigley

DX number/Exchange

Reference number MA457/002

r 4

.

11/11/2024 11:11:11 AM

11/11/2024 11:11:11 AM

11

Part B - Overseas Market Purchase on a recognised securities market outside the Statewithin the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:Total Paid **Part B - Overseas Market Purchase on a recognised securities market outside the State**within the meaning of section 1072 of the Companies Act 2014. See www.cro.ie for current list of prescribed securities markets.*note three*Please state the name of the market
where the shares were purchased :**Summary details**Particulars of shares purchased by the company on a recognised securities market outside the State under section 105 or section 114 of the Companies Act 2014. This return to be made **within 3 working days** of the delivery, to the company, of the shares purchased.

Share class	Number	Nominal value per share	Date(s) of purchase <i>note one</i>	Maximum price per share	Minimum price per share
		€		€	€

Please tick as appropriate:

☐ Shares are held as Treasury Shares
 ☐ or ☐ Shares are cancelled after repurchase - Form B7 attached

If shares are cancelled on repurchase, this form must be accompanied by Form B7.
Where shares are held as treasury shares, Form B7 is not required.
Where treasury shares are re-issued, Form H5a is required for filing.

Aggregate amount paid by the
company for shares which relate to
this return:Total Paid

Share class	Number	Nominal value per share	Date of delivery	Max price per share	Min price per share
Ordinary	125	0.2	08/08/2017	43.05	43.05
Ordinary	9,128	0.2	08/08/2017	40.83	37.04
Ordinary	133,257	0.2	14/08/2017	38.25	37.04
Ordinary	54,742	0.2	16/08/2017	37.33	36.02
Ordinary	139,935	0.2	17/08/2017	37.22	35.50
Ordinary	9,300	0.2	18/08/2017	35.88	35.04
Ordinary	128,424	0.2	30/08/2017	39.26	36.39
Ordinary	128,580	0.2	31/08/2017	39.36	38.46
Total shares	603,491		Total Paid	22,660,189.90	

22

EXHIBIT C

Companies Act 2014 (No. 38)

Part 3 Share Capital, Shares and certain other Instruments (ss. 64-126)

Chapter 6 Acquisition of own shares (ss. 102-116)
Chapter 7 Distributions (ss. 117-126)

Chapter 6 Acquisition of own shares (ss. 102-116)

✓	102. Company acquiring its own shares, etc. - permissible circumstances and prohibitions
✓	103. Supplemental provisions in relation to section 102
✓	104. Shares of a company held by a nominee of a company
✓	105. Acquisition of own shares
✓	106. Supplemental provisions in relation to section 105
✓	107. Assignment or release of company's right to purchase own shares
✓	108. Power to redeem preference shares issued before 5 May 1959
✓	109. Treasury shares
✓	110. Incidental payments with respect to acquisition of own shares
✓	111. Effect of company's failure to redeem or purchase
✓	112. Retention and inspection of documents
✓	113. Membership of holding company
✓	114. Holding by subsidiary of shares in its holding company
✓	115. Civil liability for improper purchase in holding company
✓	116. Return to be made to Registrar

102. Company acquiring its own shares, etc. - permissible circumstances and prohibitions

✓ In force

- (1) Subject to the provisions of this Chapter, a company may acquire its own fully paid shares -
- (a) by transfer or surrender to the company otherwise than for valuable consideration;
 - (b) by cancellation pursuant to a reduction of company capital by either of the means referred to in section 84;
 - (c) pursuant to an order of the court under section 212;
 - (d) where those shares are redeemable shares, by redemption or purchase under section 105;
 - (e) by purchase under section 105;
 - (f) where those shares are preference shares referred to in section 108, by redemption under that section;
 - (g) pursuant to a merger or division under Chapter 3 or 4 of Part 9; or
 - (h) pursuant to a conversion, merger or division under the European Union (Cross-Border Conversions, Mergers and Divisions) Regulations 2023 (S.I. No. 233 of 2023).
- (2) Without prejudice to the powers of a company with respect to forfeiture of its own shares as provided by this Part or to accept any of its own shares surrendered in lieu for failure to pay any sum payable in respect of those shares, a company may not acquire any of its own shares otherwise than as described in the preceding subsection, but nothing in that subsection or any other provision of this section affects the lawfulness of a merger effected in accordance with Chapter 3 of Part 9 or a scheme of arrangement sanctioned under that Part, or a conversion, merger or division effected in accordance with the European Union (Cross-Border Conversions, Mergers and Divisions) Regulations 2023 (S.I. No. 233 of 2023).

- (3) If a company purports to act in contravention of subsection (2), the company and any officer of it who is in default shall be guilty of a category 2 offence and the purported acquisition is void.
- (4) Subject to section 103, a private limited subsidiary shall not -
- (a) subscribe for the shares of its parent public company; or
 - (b) purchase shares in its parent public company which are not fully paid.
- (5) If a private limited subsidiary purports to act in contravention of subsection (4)(a), that subsidiary and any officer of it who is in default shall be guilty of a category 2 offence and the purported subscription is void.
- (6) Where shares in a parent public company are subscribed for by a nominee of a private limited subsidiary, then for all purposes the shares shall be treated as held by the nominee on his or her own account and the private limited subsidiary shall be regarded as having no beneficial interest in them, and the provisions of section 104 shall, with any necessary modifications, apply.
- (7) Without prejudice to any other requirements contained in or penalties imposed by this Act, where a private limited subsidiary purchases, subscribes for or holds shares in its parent public company, and -
- (a) in the case of a purchase, the shares were not fully paid when they were purchased; or
 - (b) the authorisation required by section 114(3) has not been obtained; or
 - (c) by virtue of their being treated (under subsection (2) of section 109) as shares held as treasury shares by the parent public company for the purposes of the limit provided by subsection (1) of that section, that limit is exceeded by the parent public company; or
 - (d) the purchase or subscription was in contravention of section 82(7),
- then, unless the shares or any interest of the private limited subsidiary in them are previously disposed of, the provisions of sections 1040 and 1041 shall apply to the private limited subsidiary in respect of such shares, with the modification that the "relevant period" (as that expression is used in those sections) in relation to any shares shall be 12 months and with any other necessary modifications.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	3	Paragraph inserted, Text deleted, Text substituted, see Schedule 4 Consequential amendments (European Union (Cross-Border Conversions, Mergers and Divisions) Regulations 2023 [S.I. No. 233 of 2023]) Compare against the previous version	(1)(f), (g), (h), (2)	24 May 2023	
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

103. Supplemental provisions in relation to section 102

✓ In force

- (1) Section 102 shall not affect or prohibit -
- (a) subject to subsection (2), the subscription for, acquisition or holding of shares in its parent public company by a private limited subsidiary where the private limited subsidiary is concerned as personal representative or where it is concerned as trustee;
 - (b) without prejudice to subsection (3), the allotment to, or holding by, a private limited subsidiary of shares in its parent public company in the circumstances set out in section 113(6);
 - (c) the subscription, acquisition or holding of shares in its parent public company by a private limited subsidiary where the subscription, acquisition or holding is effected on behalf of a person other than the person subscribing, acquiring or holding the shares, who is neither the parent public company itself nor a subsidiary of that parent public company; or

- (d) the subscription, acquisition or holding of shares in its parent public company by a private limited subsidiary which is a member of an authorised market operator acting in its capacity as a professional dealer in securities in the normal course of its business.
- (2) The restriction on the application of section 102 by subsection (1)(a) does not have effect (in the case of a trust) if the parent public company or a subsidiary of it is beneficially interested under the trust and is not so interested only by way of security for the purposes of a transaction entered into by it in the ordinary course of a business which includes the lending of money.
- (3) Where shares in a parent public company -
- (a) are allotted to, or held by, a private limited subsidiary as mentioned in subsection (1)(b); and
- (b) by virtue of their being treated (under subsection (2) of section 109) as shares held as treasury shares by the parent public company for the purposes of the limit provided by subsection (1) of that section, that limit is exceeded by the parent public company,
- then, unless the shares or any interest of the private limited subsidiary in them are previously disposed of, the provisions of sections 1040 and 1041 shall apply to the private limited subsidiary in respect of such shares, with the modification that the "relevant period" (as that expression is used in those sections) in relation to any shares shall be 3 years and with any other necessary modifications.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

104. Shares of a company held by a nominee of a company

✓ In force

- (1) Subject to subsection (5), where shares in a company are issued to a nominee of the company or are acquired by a nominee of the company from a third party as partly paid up, then for all purposes the shares shall be treated as held by the nominee on his or her own account and the company shall be regarded as having no beneficial interest in them.
- (2) If a person is called on to pay any amount for the purpose of paying up, or paying any premium on, any shares in a company which were issued to him or her, or which he or she otherwise acquired, as the nominee of the company and he or she fails to pay that amount within 21 days after the date on which he or she is called on to do so, then -
- (a) if the shares were issued to him or her as a subscriber to the constitution by virtue of an undertaking of his or hers in the constitution, the other subscribers, if any, to the constitution; or
- (b) if the shares were otherwise issued to or acquired by him or her, the directors of the company at the time of the issue or acquisition,
- shall be jointly and severally liable with him or her to pay that amount.
- (3) If in proceedings for the recovery of any such amount from any such subscriber or director under this section, it appears to the court that he or she is or may be liable to pay that amount, but that he or she has acted honestly and reasonably and that, having regard to all the circumstances of the case, he or she ought fairly to be excused from liability, the court may relieve him or her, either wholly or partly, from his or her liability on such terms as the court thinks fit.
- (4) Where any such subscriber or director has reason to apprehend that a claim will or might be made for the recovery of any such amount from him or her, he or she may apply to the court for relief and on the application the court shall have the same power to relieve him or her as it would have had in proceedings for the recovery of that amount.
- (5) Subsections (1) and (2) shall not apply -
- (a) to shares acquired by a nominee of a company where the company has no beneficial interest

in those shares (disregarding any right which the company itself may have as trustee, whether as personal representative or otherwise, to recover its expenses or be remunerated out of the trust property); or

- (b) to shares issued in consequence of an application made for them before 13 October 1983 or transferred in pursuance of an agreement to acquire them made before that date.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

105. Acquisition of own shares

✓ In force

- (1) A company may acquire its own shares by purchase, or in the case of redeemable shares, by redemption or purchase.
- (2) Any such acquisition is subject to payment in respect of the shares' acquisition being made out of -
 - (a) profits available for distribution; or
 - (b) where the company proposes to cancel, pursuant to section 106, shares on their acquisition, the proceeds of a fresh issue of shares made for the purposes of the acquisition, but subject to the restriction contained in subsection (3) as respects such proceeds being used to pay a premium there referred to.
- (3) Where the shares being acquired were issued at a premium, some or all of the premium payable on their acquisition (being an acquisition to which subsection (2)(b) applies) may be paid out of the proceeds of a fresh issue of shares made for the purposes of the acquisition, up to an amount equal to -
 - (a) the aggregate of the premiums received by the company on the issue of the shares acquired; or
 - (b) the current amount of the company's undenominated capital (including any sum transferred to its share premium account in respect of premiums on the new shares),

whichever is less, and in any such case the amount of the company's share premium account or other undenominated capital shall be reduced by a sum corresponding (or by sums in the aggregate corresponding) to the amount of any payment made by virtue of this subsection out of the proceeds of the issue of the new shares.
- (4) Subject to this Part, the acquisition by a company of its own shares shall be authorised by -
 - (a) the constitution of the company;
 - (b) the rights attaching to the shares in question; or
 - (c) a special resolution.
- (5) A special resolution under subsection (4) shall not be effective for the purposes of this section if any member of the company holding shares to which the resolution relates exercises the voting rights carried by any of those shares in voting on the resolution and the resolution would not have been passed if he or she had not done so.
- (6) With respect to subsection (4) and the matter of passing a special resolution for the purpose thereof by the written means provided for under this Act -
 - (a) the procedure under section 193 (unanimous written resolutions) is not available for that purpose;
 - (b) if a resolution referred to in section 194 (majority written resolutions) for the purpose of subsection (4) is signed by a member of the company who holds shares to which the

resolution relates, then, in determining whether the requirement under section 194(4)(a)(ii) - that the resolution be signed by the requisite majority - has been fulfilled, no account shall be taken of the percentage of voting rights conferred by the foregoing shares of that member.

- (7) Notwithstanding anything contained in section 189 or in the company's constitution, any member holding one or more shares in the company conferring the right to vote at the meeting concerned may demand a poll on a special resolution under subsection(4).
- (8) Where a purchase of shares is proposed to be authorised by special resolution -
- (a) the proposed contract of purchase or, if the contract is not in writing, a written memorandum of its terms shall be furnished to the members of the company on request or made available for inspection by the members at the registered office of the company from the date of the notice of the meeting at which the resolution is to be proposed and at the meeting itself;
- (b) any memorandum of the terms of the contract of purchase made available for the purposes of paragraph (a) shall include the names of any members holding shares to which the contract relates, and any copy of the contract made available for those purposes shall have annexed to it a written memorandum specifying any such names which do not appear in the contract itself.
- (9) With respect to the proposed authorisation of a purchase of shares by a resolution referred to in section 194, the requirements of subsection (8) shall also apply but with the modification that in paragraph (a) of that subsection "during the period of 21 days before the date of the signing of the resolution by the last member to sign" shall be substituted for "from the date of the notice of the meeting at which the resolution is to be proposed and at the meeting itself".
- (10) A company may agree to a variation of an existing contract of purchase authorised pursuant to a special resolution under this section only if the variation is authorised by special resolution of the company before it is agreed to, and subsections (5) to (9) shall apply in relation to that authority, save that a copy or memorandum (as the case may require) of the existing contract shall also be available for inspection in accordance with subsection (8).
- (11) A company shall only make a purchase of its own shares in pursuance of an option if the terms of the option have been authorised by a special resolution of the company in accordance with subsections (5) to (9) and, for the purposes of this subsection, subsection (8) shall have effect as if the references in it to the contract of purchase were references to the contract under which the option arises.
- (12) In subsection (11) "option" means an entitlement of the company, or an obligation on the part of the company, to purchase any of its shares that may arise under a contract entered into, being a contract that does not amount to a contract to purchase those shares.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

106. Supplemental provisions in relation to section 105

✓ In force

- (1) Shares acquired by a company under section 105, or otherwise acquired by it under section 102(1)(a) or (g), shall be cancelled or held by it (as "treasury shares").
- (2) Where a company -
- (a) has acquired, under section 105, shares and cancelled them; or
- (b) is about to so acquire shares and cancel them upon their acquisition,
- it shall have power to issue shares up to the nominal amount of the shares so acquired, or to be so acquired, as if those shares had never been issued.
- (3) No cancellation of shares under subsection (1) shall be taken as reducing the amount of the company's

authorised share capital (if any).

(4) Where the shares are -

- (a) under section 105, acquired wholly out of the profits available for distribution; or
- (b) under section 105, acquired wholly or partly out of the proceeds of a fresh issue and the aggregate amount of those proceeds (disregarding any part of those proceeds used to pay any premium on the acquisition) is less than the aggregate nominal value of the shares acquired (the "aggregable difference"),

then a sum equal to, in the case of paragraph (a), the nominal value of the shares acquired and, in the case of paragraph (b), the aggregable difference shall be transferred to undenominated capital of the company, other than its share premium account.

- (5) The amount by which the consideration paid for the acquisition of redeemable preference shares allotted before 1 February 1990 exceeds the consideration received by the company on the issue of those shares may be paid from undenominated capital.
- (6) Section 105 shall not apply to the redemption of preference shares referred to in section 108 and no such shares may be the subject of purchase under section 105.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	3	Text substituted, see 17. Amendment of section 106 of Principal Act (Companies (Corporate Enforcement Authority) Act 2021 (No. 48)) Compare against the previous version	(1)	6 July 2022	
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

107. Assignment or release of company's right to purchase own shares

✓ In force

- (1) Any purported assignment of the rights of a company under any contract authorised under section 105 shall be void.
- (2) Nothing in subsection (1) shall prevent a company from releasing its right under any contract authorised under section 105 provided that the release has been authorised by special resolution of the company before the release is entered into, and any such purported release by a company which has not been authorised in that manner shall be void.
- (3) Subsections (5) to (9) of section 105 shall apply to a resolution under subsection (2) and, for the purposes of this subsection, subsection (8) of section 105 shall have effect as if the references in it to the contract of purchase were references to the release concerned.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

108. Power to redeem preference shares issued before 5 May 1959

✓ In force

- (1) Subject to the provisions of this section, a company may, if so authorised by its constitution, redeem any preference shares issued by it before 5 May 1959 provided that -
- (a) no such shares shall be redeemed except out of profits of the company which would otherwise be available for distribution or out of the proceeds of a fresh issue of shares made for the purposes of the redemption;
 - (b) no such shares shall be redeemed at a sum greater than the issue price of such shares;
 - (c) the redemption of such shares and the terms and the manner of the redemption shall have been authorised by a special resolution of the company;
 - (d) notice of the meeting at which the special resolution referred to in paragraph (c) is to be proposed and a copy of that resolution shall be published in *Iris Oifigiúil* and in at least one daily newspaper circulating in the district in which the registered office of the company is situated not less than 14 days and not more than 30 days before the date of the meeting;
 - (e) no holder of such shares shall be obliged to accept redemption of them;
 - (f) the redemption shall have been sanctioned by the court.
- (2) The powers conferred by this section may be availed of only by means of an offer made to all the holders of the preference shares concerned.
- (3) Where any such shares are redeemed otherwise than out of the proceeds of a fresh issue, there shall, out of profits which would otherwise have been available for distribution be transferred to undenominated capital, other than the share premium account a sum equal to the nominal amount of the shares redeemed.
- (4) Subject to the provisions of this section, the redemption of preference shares under this section may be effected on such terms and in such manner as may be provided by the special resolution referred to in subsection (1)(c).
- (5) The redemption of preference shares under this section by a company shall not be taken as reducing the amount of the company's authorised share capital (if any).
- (6) Where in pursuance of this section a company has redeemed or is about to redeem any preference shares, it shall have power to issue shares up to the nominal amount of the shares redeemed or to be redeemed as if those shares had never been issued.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

109. Treasury shares

✓ In force

- (1) The nominal value of treasury shares held by a company may not, at any one time, exceed 10 per cent of its company capital.
- (2) For the purposes of subsection (1), the following shall also be deemed to be treasury shares held by the company -
- (a) shares held in the company by any subsidiary in pursuance of section 114;
 - (b) shares held in the company by any person acting in his or her own name but on the company's behalf;
 - (c) shares previously issued by a successor company, and held by a transferor company, which are acquired by a successor company pursuant to section 480 or 503.
- (3) For the purposes of subsection (1), shares of the company acquired by it otherwise than for valuable

consideration shall not be deemed to be treasury shares.

- (4) For so long as the company holds shares as treasury shares -
- (a) the company shall not exercise any voting rights in respect of those shares and any purported exercise of those rights shall be void; and
- (b) no dividend or other payment (including any payment in a winding up of the company) shall be payable to the company in respect of those shares.
- (5) The manner in which shares held by a company as treasury shares are to be treated in the company's entity financial statements is provided for in section 320(1) (which also contains provision restricting the profits available for distribution by reference to the accounting treatment of such shares there provided).
- (6) Treasury shares may either be -
- (a) cancelled by the company in which case section 106 shall apply as if the shares had been cancelled on their acquisition; or
- (b) subject to subsections (7) to (9), re-issued as shares of any class or classes.
- (7) A re-issue of shares under this section shall be deemed for all the purposes of this Act to be an issue of shares but the issued share capital of the company shall not be regarded for any purpose as having been increased by the re-issue of the shares.
- (8) Unless the case falls within subsection (9), the maximum and minimum prices at which treasury shares may be re-allotted (the "re-allotment price range") shall be determined by special resolution of the company passed before any contract for the re-allotment of the shares is entered into.
- (9) In a case where the whole or a part of the treasury shares to be re-allotted are derived from shares acquired by the company under this Part on foot of the authority of a special resolution of the company, the re-allotment price range of the whole or such part (as the case may be) of those shares shall be determined by special resolution of the company passed at the meeting at which the first-mentioned resolution in this subsection has been passed.
- (10) Any determination referred to in subsection (8) or (9) -
- (a) may fix different maximum and minimum prices for different shares; and
- (b) shall, for the purposes of subsection (8) or (9), as the case may be, remain effective with respect to those shares for the requisite period.
- (11) The company may from time to time, by special resolution, vary or renew a determination of re-allotment price range under subsection (8) or (9) with respect to particular treasury shares before any contract for re-allotment of those shares is entered into and any such variation or renewal shall, for the purposes of this subsection, remain effective as a determination of the re-allotment price range of those shares for the requisite period.
- (12) A re-allotment by a company of treasury shares in contravention of subsection (8), (9), (10) or (11) shall be unlawful.
- (13) In this section "requisite period" means the period of 18 months after the date of the passing of the resolution determining the re-allotment price range or varying or renewing (as the case may be) such determination or such lesser period as the resolution may specify.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	3	Paragraph inserted, Text substituted, see 18. Amendment of section 109 of Principal Act (Companies (Corporate Enforcement Authority) Act 2021 (No. 48)) Compare against the previous version	(2)(b), (c)	6 July 2022	
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

110. Incidental payments with respect to acquisition of own shares

✓ In force

- (1) Any payment made by a company in consideration of -
- (a) acquiring any right with respect to the purchase of its own shares in pursuance of a contract authorised under section 105;
 - (b) the variation of a contract authorised under section 105; or
 - (c) the release of any of the company's obligations with respect to the purchase of any of its own shares under a contract authorised under section 105,
- shall be unlawful if any such payment is made otherwise than out of distributable profits of the company or, in the circumstances in which the proceeds of such an issue are permitted to be used by this Part for the purpose of the purchase of the shares, the proceeds of a new issue of shares.
- (2) If the requirements of subsection (1) are not satisfied in relation to a contract -
- (a) in a case to which paragraph (a) of that subsection applies, no purchase by the company of its own shares in pursuance of that contract shall be lawful under this Part;
 - (b) in a case to which paragraph (b) of that subsection applies, no such purchase following the variation shall be lawful under this Part; and
 - (c) in a case to which paragraph (c) of that subsection applies, the purported release shall be void.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

111. Effect of company's failure to redeem or purchase

✓ In force

- (1) This section applies to -
- (a) redeemable shares issued after 1 February 1991;
 - (b) shares which have been converted into redeemable shares; and
 - (c) shares which a company has agreed to purchase pursuant to section 105.
- (2) Without prejudice to any other right of the holder of any shares to which this section applies, a company shall not be liable in damages in respect of any failure on its part to redeem or purchase any such shares.
- (3) Neither the High Court nor the Circuit Court shall grant an order for specific performance of the terms of redemption or purchase of the shares to which this section applies if the company shows that it is unable to meet the cost of redeeming or purchasing the shares out of profits available for distribution.
- (4) Where, at the commencement of the winding up of a company, any shares to which this section applies have not been redeemed or purchased then, subject to subsections (5), (6) and (7), the terms of redemption or purchase may be enforced against the company and the shares when so redeemed or purchased under this subsection shall be treated as cancelled.
- (5) Subsection (4) shall not apply if -
- (a) the terms of redemption or purchase provided for the redemption or purchase to take place at a date later than that of the commencement of the winding up; or
 - (b) during the period beginning with the date on which the redemption or purchase was to have taken place and ending with the commencement of the winding up, the company could not at

any time have lawfully made a distribution equal in value to the price at which the shares were to have been redeemed or purchased.

- (6) There shall be paid in priority to any amount for which the company is liable by virtue of subsection (4) to pay in respect of any shares -
- (a) all other debts and liabilities of the company other than any due to members in their capacity as such; and
 - (b) if other shares carry rights, whether as to capital or to income, which are preferred to the rights as to capital attaching to the first-mentioned shares, any amount due in satisfaction of those preferred rights, but subject to that, any such amount shall be paid in priority to any amounts due to members in satisfaction of their rights (whether as to capital or income) as members.
- (7) Where, by virtue of the application by section 619 of the rules of bankruptcy in the winding up of insolvent companies, a creditor of a company is entitled to payment of any interest only after payment of all other debts of the company, the company's debts and liabilities shall for the purposes of subsection (6) include the liability to pay that interest.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

112. Retention and inspection of documents

✓ In force

- (1) A company which enters into a contract under section 105 shall, until the expiration of 10 years after the date on which the contract has been fully performed, keep at its registered office a copy of that contract or, if it is not in writing, a memorandum of its terms.
- (2) Every document required to be kept under subsection (1) shall during business hours be open to the inspection of any member.
- (3) In the case of a refusal of an inspection of a document required under subsection (2), the court may, on the application of a person who has requested an inspection and has been refused, by order require the company to allow the inspection of that document.
- (4) Section 127(1) (access to documents during business hours) shall apply in relation to subsection (2) as it applies in relation to the relevant provisions of Part 4.
- (5) If a company contravenes this section, the company and any officer of it who is in default shall be guilty of a category 3 offence.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

113. Membership of holding company

✓ In force

- (1) Subject to section 114 and the other provisions of this Act, a company cannot be a member of a company which is its holding company, and any allotment or transfer of shares in a company to its subsidiary shall

be void.

- (2) Nothing in this section shall apply where the subsidiary is concerned as personal representative, or where it is concerned as trustee, unless the holding company or a subsidiary of it is beneficially interested under the trust and is not so interested only by way of security for the purposes of a transaction entered into by it in the ordinary course of a business which includes the lending of money.
- (3) This section shall not prevent a subsidiary which on 5 May 1959 was a member of its holding company from continuing to be a member.
- (4) This section shall not prevent a company which, at the date on which it becomes a subsidiary of another company is a member of that other company, from continuing to be a member.
- (5) This section shall not prevent the subscription, acquisition or holding of shares in its parent public company by a company which is a member of an authorised market operator acting in its capacity as a professional dealer in securities in the normal course of its business.
- (6) This section shall not prevent a subsidiary which is a member of its holding company from accepting and holding further shares in the capital of its holding company if -
 - (a) such further shares are allotted to it in consequence of a capitalisation by such holding company; and
 - (b) the terms of such capitalisation are such that the subsidiary is not thereby involved in any obligation to make any payment or to give other consideration for such further shares.
- (7) Subject to subsection (2), a subsidiary which is a member of its holding company shall have no right to vote at meetings of the holding company or any class of members of it.
- (8) The manner in which shares held (in the circumstances permitted by this section) in a holding company by the subsidiary are to be treated in -
 - (a) the subsidiary's entity financial statements is provided for in section 320(2) (which also contains provision restricting the profits available for distribution by reference to the accounting treatment of such shares there provided); and
 - (b) the group financial statements, if any, of the holding company is provided for in section 320(3).
- (9) Subject to subsection (2), this section shall apply in relation to a nominee for the company firstly referred to in subsection (1), as if references in this section to such a company included references to a nominee for it.
- (10) Where a holding company makes an offer of shares to its members, it may sell, on behalf of a subsidiary, any such shares which the subsidiary could, but for this section, have taken by virtue of shares already held by it in the holding company and pay the proceeds of sale to the subsidiary.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

114. Holding by subsidiary of shares in its holding company

✓ In force

- (1) Notwithstanding section 82 or 113, a company may, subject to the provisions of this section, acquire and hold shares in a company which is its holding company.
- (2) The acquisition and holding by a subsidiary under subsection (1) of shares in its holding company shall be subject to the following conditions -
 - (a) the consideration for the acquisition of such shares shall be provided for out of the profits of the subsidiary available for distribution;

- (b) upon the acquisition of such shares and for so long as the shares are held by the subsidiary -
- (i) the subsidiary shall not exercise any voting rights in respect of the shares and any purported exercise of those rights shall be void;
- (ii) the manner in which shares so held by the subsidiary are to be treated in -
- (I) the subsidiary's entity financial statements is provided for in section 320(2) (which also contains provision restricting the profits available for distribution by reference to the accounting treatment of such shares there provided); and
- (II) the group financial statements, if any, of the holding company is provided for in section 320(3).
- (3) A contract for the acquisition (whether by allotment or transfer) by a subsidiary of shares in its holding company shall not be entered into without being authorised in advance both by the subsidiary and its holding company and the provisions of sections 105 and 107 shall apply, with the necessary modifications, to the granting, variation, revocation and release of such authority.
- (4) For the purposes of this section and section 320, a subsidiary's profits available for distribution shall not include the profits attributable to any shares in the subsidiary for the time being held by the subsidiary's holding company, so far as they are profits for the period before the date on or from which the shares were acquired by the holding company.
- (5) This section shall not apply to shares held by a subsidiary in its holding company in the circumstances permitted by section 113.
- (6) No authorisation is required to be given under subsection (3) by any body corporate unless it is a company formed and registered under this Act or an existing company.
- (7) Nothing in this section limits the operation of section 102(4).

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

115. Civil liability for improper purchase in holding company

✓ In force

- (1) This section applies where -
- (a) the winding up of a company which has acquired shares in its holding company in accordance with section 114 commences within 6 months after the date of such acquisition; and
- (b) the company is, at the time of the commencement of the winding up, unable to pay its debts (taking into account the contingent and prospective liabilities).
- (2) Where this section applies the court, on the application of a liquidator, creditor, employee or contributory of the company, may, subject to subsection (3), declare that the directors of the company shall be jointly and severally liable to repay to the company the total amount paid by the company for the shares.
- (3) Where it appears to the court that any person in respect of whom a declaration has been sought under subsection (2) believed on reasonable grounds that the acquisition referred to in subsection (1) was in the best interests of the company, the court may relieve him or her, either wholly or in part, from personal liability on such terms as it may think fit.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
--------	---------	---------	---------------------	----------------	-------

✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

116. Return to be made to Registrar

✓ In force

- (1) A company which has acquired shares pursuant to this Part shall, within 30 days after the date of delivery to the company of those shares, deliver to the Registrar a return in the prescribed form stating, with respect to shares of each class acquired, the number and nominal value of those shares and the date on which they were delivered to the company.
- (2) Particulars of shares delivered to the company on different dates and under different contracts may be included in a single return to the Registrar.
- (3) If a company contravenes this section, the company and any officer of it who is in default shall be guilty of a category 3 offence.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

Chapter 7 Distributions (ss. 117-126)

✓	117. Profits available for distribution
✓	121. The relevant financial statements

117. Profits available for distribution

✓ In force

- (1) A company shall not make a distribution except out of profits available for the purpose.
- (2) For the purposes of this Part, a company's profits available for distribution are its accumulated, realised profits, so far as not previously utilised by distribution or capitalisation, less its accumulated, realised losses, so far as not previously written off in a reduction or reorganisation of capital duly made.
- (3) A company shall not apply an unrealised profit in paying up debentures or any amounts unpaid on any of its issued shares.
- (4) For the purposes of subsections (2) and (3) -
 - (a) where the company prepares Companies Act entity financial statements, any provision or value adjustment (within the meaning of Schedule 3, 3A or 3B, as the case may be) shall be treated as a realised loss other than a value adjustment in respect of any diminution in value of a fixed asset appearing on a revaluation of all the fixed assets or of all the fixed assets other than goodwill (and this qualification is referred to in subsections (5) and (6) as "the exception to subsection (4)(a)", and
 - (b) where the company prepares IFRS financial statements, a provision or value adjustment of any kind shall be treated as a realised loss.
- (5) Subject to section 121(6) and the next subsection, any consideration by the directors of a company of the value at any particular time of any fixed asset of the company shall be treated as a revaluation of that asset for the purposes of determining whether any such revaluation of the company's fixed assets, as is required for the purposes of the exception to subsection (4)(a), has taken place at that time.
- (6) However where any such assets which have not actually been revalued are treated as revalued for those purposes by virtue of the preceding subsection, the exception to subsection (4)(a) shall only apply if the directors are satisfied that the aggregate value of those assets at the time in question is not less than the aggregate amount at which they are for the time being stated in the company's Companies Act entity financial statements.
- (7) If, on the revaluation of a fixed asset, an unrealised profit is shown to have been made and, on or after the revaluation, a sum is written off or retained for depreciation of that asset over a period, then an amount equal to the amount by which that sum exceeds the sum which would have been so written off or retained for depreciation of that asset over that period if that profit had not been made, shall be treated for the purposes of subsections (2) and (3) as a realised profit made over that period.
- (8) Where there is no record of the original cost of an asset of a company or any such record cannot be obtained without unreasonable expense or delay, then, for the purposes of determining whether the company has made a profit or loss in respect of that asset, the cost of the asset shall be taken to be the value ascribed to it in the earliest available record of its value made on or after its acquisition by the company.
- (9) Notwithstanding anything in the preceding subsections of this section, but without prejudice to any contrary provision of -
 - (a) an order of, or undertaking given to, the court;
 - (b) the resolution for, or any other resolution relevant to, the reduction of company capital; or
 - (c) the company's constitution,
 a reserve arising from the reduction of a company's company capital is to be treated, both for the purposes of this section and for purposes otherwise, as a realised profit.
- (10) In this section "fixed asset" includes any other asset which is not a current asset.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	3	Subsection substituted, see 91. Amendment of section 117 of Principal Act (Companies (Accounting) Act 2017 (No. 9)) Compare against the previous version	(4)	9 June 2017	
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

121. The relevant financial statements

✓ In force

- (1) Subject to the following provisions of this section, the question whether a distribution may be made by a company without contravening section 117 and the amount of any distribution which may be so made shall be determined by reference to the relevant items as stated in the relevant entity financial statements, and section 117 shall be treated as contravened in the case of a distribution unless the requirements of this section in relation to those statements are complied with in the case of that distribution.
- (2) The relevant entity financial statements for any company in the case of any particular distribution are -
 - (a) except in a case falling within paragraph (b) or (c), the last entity financial statements, that is to say, the statutory financial statements, respecting the company alone, prepared in accordance with the requirements of Part 6 (and, where applicable, in accordance with the requirements of Article 4 of the IAS Regulation (within the meaning of that Part)) which were laid in respect of the last preceding financial year in respect of which statutory financial statements so prepared were laid;
 - (b) if that distribution would be found to contravene section 117 if reference were made only to the last statutory financial statements, such financial statements ("interim financial statements"), respecting the company alone, as are necessary to enable a reasonable judgement to be made as to the amounts of any of the relevant items;
 - (c) if that distribution is proposed to be declared during the company's first financial year or before any statutory financial statements are laid in respect of that financial year, such financial statements ("initial financial statements"), respecting the company alone, as are necessary as mentioned in paragraph (b).
- (3) The following requirements apply where the last financial statements of a company constitute the only relevant entity financial statements in the case of any distribution, that is to say -
 - (a) those financial statements shall have been properly prepared or have been so prepared subject only to matters which are not material for the purpose of determining, by reference to the relevant items as stated in those statements, whether that distribution would be in contravention of section 117;
 - (b) unless the company is entitled to and has availed itself of the audit exemption under section 360 or 365, the statutory auditors of the company shall have made a report under section 391 in respect of those financial statements;
 - (c) if, by virtue of anything referred to in that report, the report is not an unqualified report, the statutory auditors shall also have stated in writing (either at the time the report was made or subsequently) whether, in their opinion, that thing is material for the purpose of determining, by reference to the relevant items as stated in those financial statements, whether that distribution would be in contravention of section 117; and
 - (d) a copy of any such statement shall have been laid before the company in general meeting.
- (4) A statement under subsection (3)(c) suffices for the purposes of a particular distribution, not only if it relates to a distribution which has been proposed, but also if it relates to distributions of any description which include that particular distribution, notwithstanding that at the time of the statement it has not been proposed.
- (5) For the purpose of determining by reference to particular financial statements whether a proposed

distribution may be made by a company, this section shall have effect, in any case where one or more distributions have already been made in pursuance of determinations made by reference to those same financial statements, as if the amount of the proposed distribution was increased by the amount of the distributions so made.

- (6) Where subsection (3)(a) applies to the relevant entity financial statements, section 117(5) shall not apply for the purposes of determining whether any revaluation of the company's fixed assets affecting the amount of the relevant items as stated in those statements has taken place, unless it is stated in a note to those statements -
- (a) that the directors have considered the value at any time of any fixed assets of the company without actually revaluing those assets;
 - (b) that they are satisfied that the aggregate value of those assets at the time in question is or was not less than the aggregate amount at which they are or were for the time being stated in the company's statutory financial statements; and
 - (c) that the relevant items affected are accordingly stated in the relevant financial statements on the basis that a revaluation of the company's fixed assets that, by virtue of section 117(5), is deemed to have included a revaluation of the assets in question, took place at that time.
- (7) In this section -

"properly prepared" means, in relation to any financial statements of a company, that they have been properly prepared in accordance with the provisions of Part 6;

"relevant item" means any of the following, that is to say profits, losses, assets, liabilities, provisions (within the meaning of Schedule 3, 3A or 3B, as the case may be), share capital and reserves;

"reserves" includes undistributable reserves, that is to say -

- (a) the company's undenominated capital;
- (b) the amount by which the company's accumulated, unrealised profits, so far as not previously utilised by any capitalisation, exceed its accumulated, unrealised losses, so far as not previously written off in a reduction or reorganisation of capital duly made; and
- (c) any other reserve which the company is prohibited from distributing by any enactment, other than one contained in this Part, or by its constitution.

"unqualified report", in relation to any financial statements of a company, means a report without qualification, to the effect that, in the opinion of the person making the report, the financial statements have been properly prepared, and for the purposes of this section, financial statements are laid if section 290 has been complied with in relation to those statements.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	3	Text substituted, see 90. Miscellaneous amendments of Principal Act consequential to insertion of Schedules (Companies (Accounting) Act 2017 (No. 9)) Compare against the previous version	(7)	9 June 2017	
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

Part 6 Financial statements, annual return and audit (ss. 272-407)

[Chapter 1 Preliminary \(ss. 272-280\)](#)

Chapter 1 Preliminary (ss. 272-280)

✓	<u>278. Accounting standards generally - power of Minister to specify</u>
✓	<u>279. US accounting standards may, in limited cases, be availed of for particular transitional period</u>

278. Accounting standards generally - power of Minister to specify

✓ In force

- (1) The Minister may specify by regulations the accounting standards in accordance with which statutory financial statements are to be prepared but any such regulations shall not apply in any excepted case.
- (2) In subsection (1) "excepted case" means -
- (a) a case in which this Part permits (and the company concerned avails itself of that permission), or requires, statutory financial statements to be prepared in accordance with IFRS, or
 - (b) a case falling within section 279 or regulations made under section 280 and the holding company concerned avails itself of what is permitted by that section or those regulations.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

279. US accounting standards may, in limited cases, be availed of for particular transitional period

✓ In force

- (1) In this section -
- "relevant holding company" means a holding company -
- (a) whose securities (or whose receipts in respect of those securities) are registered with the Securities and Exchange Commission of the United States of America, or which is otherwise subject to reporting to that Commission, under the laws of the United States of America,
 - (aa) which was incorporated in the State prior to the commencement of section 1 of the Companies (Amendment) Act 2017, and
 - (b) which -
 - (i) prior to 4 July 2012, has not made and was not required to make an annual return to the Registrar to which accounts were required to have been annexed, or
 - (ii) on or after 23 December 2009 but prior to 4 July 2012, used, in accordance with the provisions of the Companies (Miscellaneous Provisions) Act 2009, US accounting standards in the preparation of its Companies Act individual accounts or its Companies Act group accounts;
- "relevant financial statements" means Companies Act entity financial statements and Companies Act group financial statements;
- "US accounting standards" means US generally accepted accounting principles, that is to say, the standards and interpretations, in relation to accounting and financial statements, issued by any of the following bodies constituted under the laws of the United States of America or of a territorial unit of the United States of America -
- (a) the Financial Accounting Standards Board,

- (b) the American Institute of Certified Public Accountants,
 - (c) the Securities and Exchange Commission.
- (2) This section applies to the relevant financial statements of a relevant holding company that are prepared for such of its financial years after it is incorporated in the State as end or ends not later than 31 December 2030.
- (3) To the extent that the use of US accounting standards does not contravene any provision of this Part -
- (a) a true and fair view of the assets and liabilities, financial position and profit or loss of a relevant holding company may be given by the use by that company of those standards in the preparation of its Companies Act entity financial statements, and
 - (b) a true and fair view of the assets and liabilities, financial position and profit or loss of a relevant holding company and its subsidiary undertakings as a whole may be given by the use by that relevant holding company of those standards in the preparation of its Companies Act group financial statements.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
✓	3	Paragraph inserted, Text substituted, see 1. Amendment of section 279 of Companies Act 2014 (Companies (Amendment) Act 2017 (No. 13)) Compare against the previous version	(1)(aa) and (2)	18 July 2017	
✓	2	Commencement, see Article 3 (Companies Act 2014 (Commencement) Order 2015 [S.I. No. 169 of 2015]) Compare against the previous version	All provisions	1 June 2015	
N	1	Published		23 December 2014	

EXHIBIT D

Companies (Miscellaneous Provisions) Act 2009 (No. 45)

1. Transitional accounting standards.

✓ In force

- (1) In this section -
- "accounts" means Companies Act individual accounts and Companies Act group accounts;
- "relevant parent undertaking" means a parent undertaking -
- (a) which does not have securities admitted to trading on a regulated market,
 - (b) whose securities (or whose receipts in respect of those securities) are registered with the Securities and Exchange Commission of the United States of America, or which is otherwise subject to reporting to that Commission, under the laws of the United States of America, and
 - (c) which -
 - (i) prior to the date on which the Companies (Amendment) Act 2012 came into operation, did not make and was not required to make an annual return to the registrar of companies to which accounts were required to have been annexed, or
 - (ii) on or after 23 December 2009 but prior to the date on which the Companies (Amendment) Act 2012 came into operation, used, in accordance with the provisions of this Act, US generally accepted accounting principles in the preparation of its Companies Act individual accounts or its Companies Act group accounts;
- "US generally accepted accounting principles" means the standards and interpretations, in relation to accounting and financial statements, issued by any of the following bodies constituted under the laws of the United States of America or of a territorial unit of the United States of America:
- (a) the Financial Accounting Standards Board;
 - (b) the American Institute of Certified Public Accountants;
 - (c) the Securities and Exchange Commission.
- (2) This section applies to the accounts of a relevant parent undertaking that are prepared for such of its financial years after it is incorporated in the State as end or ends not later than 31 December 2020.
- (3) To the extent that the use of US generally accepted accounting principles does not contravene any provision of the Companies Acts or of any regulations made thereunder -
- (a) a true and fair view of the state of affairs and profit or loss of a relevant parent undertaking may be given by the use by that undertaking of those principles in the preparation of its Companies Act individual accounts, and
 - (b) a true and fair view of the state of affairs and profit or loss of a relevant parent undertaking and its subsidiary undertakings as a whole may be given by the use by that relevant parent undertaking of those principles in the preparation of its Companies Act group accounts.
- (4) Where accounts are prepared in accordance with this section, the notes to those accounts shall contain a statement to that effect.

Table of Amendments

Status	Version	Details	Affected provisions	Effective date	Notes
R	3	Repealed, see Schedule 2, Part 1 Acts of the Oireachtas Repealed (Companies Act 2014 (No. 38)) Compare against the previous version		1 June 2015	
✓	2	Definition amended, Subsection substituted, see 2. Amendment of section 1 of Act of 2009. (Companies (Amendment) Act 2012 (No. 22)) Compare against the previous version	(1)(c), (2)	4 July 2012	


	1	Commencement, see 6. Short title, commencement and construction. (Companies (Miscellaneous Provisions) Act 2009 (No. 45))	All provisions	23 December 2009	
---	---	---	----------------	------------------	--

EXHIBIT 2

© Copyright 2023, vLex Justis. All Rights Reserved.

Re Irish Life & Permanent Plc

Jurisdiction: Ireland
Judge: Mr. Justice Clarke
Judgment Date: 21 December 2009
Neutral Citation: `{:value=>"[2009] IEHC 567", :attribution=>"Judgment", :fulltext_available=>true, :vid=>793569961, :url=>"/vid/793569961"}`
`{:value=>"[2010] 3 IR 513", :attribution=>"Irish Reports", :fulltext_available=>true, :vid=>803177857, :url=>"/vid/793569961/expression/803177857"}`
Reported In: `{:value=>"[2009] IEHC 567", :attribution=>"Judgment", :fulltext_available=>true, :vid=>793569961, :url=>"/vid/793569961"}`
Docket Number: [2009 No. 640]
Court: High Court
Date: 21 December 2009

Id. vLex Justis VLEX-793569961

Link: <https://justis.vlex.com/vid/re-irish-life-permanent-793569961>

Text

[2009] IEHC 567

THE HIGH COURT

[No. 640 COS/2009]

Irish Life & Permanent Plc, In Re
[2009] IEHC 567
COMMERCIAL
IN THE MATTER OF IRISH LIFE AND PERMANENT PLC

AND

SECTION 201 OF THE COMPANIES ACT 1963

AND

THE COMPANIES ACTS 1963 - 2009

[COMPANIES ACT 1963](#) S201(1)

COMPANIES (AMDT) ACT 1983 S45

[COMPANIES ACT 1963](#) S148

EUROPEAN COMMUNITIES (INTERNATIONAL FINANCIAL REPORTING STANDARDS & MISCELLANEOUS AMDTS) REGS 2005 SI 116/2005 REG 4

[COMPANIES ACT 1963](#) S149

[COMPANIES ACT 1963](#) S149A

EEC [REG 1606/2002](#)

BUCKLEY & PARKER & WALTON BUCKLEY ON THE COMPANIES ACTS 14ED 1981-85

SPANISH PROSPECTING CO LTD, IN RE [1911 1 CH 92](#)

WILSON (INSPECTOR OF TAXES) v DUNNES STORES (CORK) LTD [1982 ILRM 444](#)

MEAGHER v MEAGHER & ORS [1961 IR 96](#)

RUSHDEN HEEL CO LTD v KEENE (INSPECTOR OF TAXES) 1948 2 AER 378

MCCLELLAND v HYDE [1942 NI 1](#)

DROWN v GAUMONT-BRITISH PICTURE CORP LTD [1937 CH 402](#)

COMPANY LAW

Scheme of arrangement

Profits - Accounting standards - Existing company becoming wholly owned subsidiary of proposed company - Premium shares in proposed company - Difference between value of consideration received and nominal value of shares - Accounting standards requiring investment by proposed company in subsidiary recorded as amount subsidiary required to record as its equity - Reserve arising in proposed company's accounts being difference between amount of proposed company's investment in existing company and amount required to be included in share capital and share premium accounts- Meaning of profit - Whether reserve in accounts of new company amounted to profit - Drown v Gaumont-British Picture Corp Ltd [\[1937\] Ch 402](#), McClelland v Hyde [\[1942\] NI 1](#), Meagher v Meagher [\[1961\] IR 96](#); Rushden Heel Co Ltd v Inland Revenue Commissioners [\[1946\] 2 All ER 141](#), In Re Spanish Prospecting Company Ltd [\[1911\] 1 Ch 92](#) and Wilson v Dunnes Stores (Cork) Ltd [\[1982\] ILRM 444](#) considered -

[Companies Act 1963](#) (No 33), s 201(1) - Companies (Amendment) Act 1983 (No 13), s 45 - Question answered (2009/640COS - Clarke J - 21/12/2009) [2009] IEHC 567

Re Irish Life and Permanent plc

2009/640COS - Clarke - High - 21/12/2009 - 2010 3 IR 513 2009 28 6843 2009 IEHC 567

Facts Section 45 of the Companies (Amendment) Act 1983 provides, inter alia, that:- "(1) A company shall not make a distribution (as defined by section 51) except out of profits available for the purpose; (2) For the purposes of this Part a company's profits available for distribution are its accumulated, realised profits so far as not previously utilised by distribution or capitalisation, less its accumulated realised losses so far as not previously written off in a reduction or reorganisation of capital duly made." The applicant brought an application under [s. 201\(1\) of the Companies Act 1963](#), whose principal purpose was to secure directions relating to necessary meetings which had to be conducted of its shareholders for the purposes of considering, and if thought appropriate, approving of a scheme of arrangement. It also sought a declaration concerning the status of a reserve which would arise in the accounts of the new company in the event that the scheme was approved. The question which arose was as to whether that reserve would be a profit within the meaning of s. 45 of the Companies (Amendment) Act 1983.

Held by Mr. Justice Clarke in holding that the reserve, arising in the way in which it did as a result of the proper application of relevant and applicable accountancy principles, gave rise to a realised profit for the purposes of s. 45 of [the Act](#) of 1983 that:-

1. the current assets of a commercial entity must, in logic, represent either the accumulated capital invested into the business or company (that is, all of the capital invested less any capital taken out) together with the accumulated net undistributed profits of the business (that is, all of the profits less all of the losses less any profits distributed, in whatever way might be appropriate, to the investors).
2. In this context, the term profits includes both what might, for Revenue purposes, be described as capital gains or income.
3. In principle, the term "profits" reflects a change in the assets of the entity concerned not explained by a movement in the capital invested in the entity. Obviously if further capital is invested, or if capital is returned to the investors, then that will explain a movement in the assets of the entity which does not derive from the entity having made profits. However, when any appropriate allowance is made for further investment or return of capital, then the remaining change in the assets of the entity must be its profits (or, in the case that there be a diminution, its losses).
4. Profits over any particular period amount, therefore, to the change in the assets for the period in question which cannot be explained by a movement in the capital invested.

Reporter: P.C.

Mr. Justice Clarke delivered on the 21st of December, 2009

1. Introduction

2 1.1 The applicant (which, for reasons which will become obvious, I will refer to as "old ILP") has brought an application before the court under s. 201(1) of the [Companies Act](#) 1963 ("[the Act](#)"), whose principal purpose is to secure directions relating to necessary meetings which must be conducted of its shareholders for the purposes of considering, and if thought appropriate, approving of a scheme of arrangement. At its simplest, the scheme of arrangement involves a series of transactions which would lead to the creation of a new company ("new ILP") in which the existing shareholders of old ILP would, substantially, have the same shareholding.

3 1.2 However, an additional item of the relief claimed sought a declaration concerning the status of a reserve which would arise in the accounts of new ILP in the event that the scheme was approved. The question which arose was as to whether that reserve (to which more detailed reference will be made in due course), would be a profit within the meaning of s. 45 of the Companies (Amendment) Act 1983("s. 45").

4 1.3 Depending on the answer to that question, different procedural steps would need to be taken in order to allow for the proper implementation of the scheme of arrangement should it meet with the shareholders' approval. With that in mind, counsel for old ILP urged that I should first consider and rule on the question of the status, so far as profit within the meaning of the Companies Acts is concerned, of the relevant reserve. I agreed with counsel that it was appropriate that the question of the status of the reserve concerned should be determined first, but also suggested that it would be appropriate that there be a *legitimus contradictor* to put forward argument against the proposition which was to be urged on behalf of old ILP, which was to the effect that the relevant reserve did amount to a profit within the meaning of the s. 45.

5 1.4 A shareholder had indicated a willingness to instruct solicitor and counsel to present the relevant arguments and I, therefore, gave directions that the shareholder concerned be nominated for that purpose. Counsel for old ILP and counsel for the shareholder concerned, therefore, presented argument on the status of the relevant reserve. Having heard that argument, and having regard to the urgency of the matter, I indicated that I would inform the parties of my decision in a

short number of days but would defer giving more detailed reasons for the conclusions which I had reached until a later stage. Accordingly, on the 3rd of November, I informed the parties that it was my view that the relevant reserve did amount to a profit for the purposes of s. 45. I indicated that I would deliver more detailed reasons for that conclusion in due course. This judgment is directed towards setting out those detailed reasons. In order to understand why the issue with which I was concerned had arisen it is necessary to say something about the proposed scheme of arrangement. I, therefore, turn to the scheme of arrangement.

2. Scheme of Arrangement

2 2.1. Old ILP was originally established as a mutual building society in 1884. On the 21st September, 1994, the then Irish Permanent Building Society converted to a public limited company operating under the Laws of Ireland under the name Irish Permanent Plc. In April, 1999 Irish Permanent Plc acquired Irish Life Assurance Plc, and shortly afterwards changed its name to Irish Life & Permanent Plc. Thus, old ILP is the same legal entity as Irish Permanent Plc, being a converted mutual building society and having acquired Irish Life Assurance Plc.

3 2.2 The proposed scheme of arrangement involves a series of transactions, some of which it will be necessary to refer to for the purposes of this judgment, whereby the shareholders of old ILP will become shareholders in new ILP, with old ILP becoming a subsidiary of new ILP. Thus, new ILP will be simply a holding company for the various entities within the ILP Group and will not carry out any direct business itself. It is the accounting treatment of the consequences of certain of the transactions which would be carried out for the purposes of giving effect to the scheme which lie at the heart of the problem which has arisen. In that context it is appropriate to turn, briefly, to the legal basis for the application of accounting standards in the preparation of companies accounts.

3. Accounting Standards

2 3.1 Section 148 of the [Companies Act](#) 1963("the Act") (as amended by Reg. 4 of the EC (IFRSMA) Regulation 2005) deals with the duty of companies to prepare accounts. Subject to certain exceptions which are not material to the issues which I have to decide, a company's accounts are required to be prepared either:-

a A. In accordance with s. 149 (to be known and in [the Act](#) referred to as "[Companies Act](#) Individual Accounts"), or

b B. In accordance with international financial reporting standards and s. 149A (to be known and in [the Act](#) referred to as "IFRS Individual Accounts").

3 3.2 Thus it is clear that accounts of companies, in order that they might comply with [the Act](#) as amended, must be prepared in accordance with the relevant standards. For reasons which it is not necessary to detail here, the standard applied so far as both old ILP and new ILP is the IFRS individual accounts standard.

4 3.3 Before going on to analyse the relevant provisions of the IFRS standard it is necessary to say something more about the scheme of arrangement proposed and, the reserve which will arise in the accounts of new ILP in the event that the scheme is implemented. I, therefore, turn to the reserve.

4. The Reserve

2 4.1 Under the scheme the existing issued share capital of old ILP (other than a nominal seven shares which are retained because old ILP, as a public limited company, is required by law to have a minimum of seven shareholders) are to be cancelled and extinguished. Immediately and contingent on that cancellation old ILP will apply the whole of the reserve arising in its books of account as a result of that cancellation in allotting and paying up in full and at par, such number of new old ILP shares as shall be equal to the number of existing shares cancelled. The new old ILP shares so created are to be issued to new ILP. Thus, in substance, the entirety of the shareholding in old ILP will be held by new ILP. In addition, in consideration of the cancellation of the existing shares, shares in new ILP will be allotted to its existing shareholders on the basis of one new ILP share for each old ILP share cancelled. As a consequence, it is clear that old ILP will become a wholly owned subsidiary of new ILP and the existing shareholders in old ILP will become the shareholders in new ILP.

3 4.2 As to the proper accounting treatment, in accordance with the IFRS standard, of those transactions I have had the benefit of the evidence of Úna Curtis, a director with responsibility

for technical accounting matters in the Department of Professional Practice of KPMG Chartered Accountants. I accept the evidence given by Ms. Curtis who, in addition to being a fellow of the Institute of Chartered Accountants in Ireland, has, as part of a most impressive Curriculum Vitae, been Chairperson (from 1996 to 2003) of the Accounting Committee of the Institute of Chartered Accountants in Ireland.

4 4.3 Ms. Curtis drew my attention to what appears to be the relevant IFRS guidance in relation to this transaction which is as set out in IAS 27. IAS 27 was most recently amended in 2008 and was subsequently endorsed by the EU in accordance with [IAS Regulation](#) ([Regulation \(EC\) No. 1606/2002](#)). The applicable guidance is to be found in para. 38B.

5 4.4 In order to understand the accounting treatment of the transaction, certain figures were given in the evidence of Ms. Curtis. It is important to note that these figures were based on the most up to date accounts available at the time of the hearing before me. However, the exact figures which are intended to be used in the transaction, should it go ahead, are figures which would be updated to that point in time. However, nothing turns on the precise figures and it is clear that the figures given in Ms. Curtis's evidence are most useful for the purposes of understanding the issue which had arisen. In that context, three figures are of particular importance.

6 4.5 Under the existing accounts of old ILP (as of the 31st December, 2008) total equity is given as €3,584M. The fair value of old ILP (based on its current market value as per the stock exchange) is of the order of €1,578M. The par value of the share capital of new ILP will be €89M.

7 4.6 Returning to the provisions of IAS 27.38B, same require that, when new ILP records its investment in its new subsidiary (that is old ILP), it is required to record this amount as €3,584M. I will return, in due course, to the reason for this. In substance, new ILP is required to record its investment in its subsidiary, in the circumstances which will arise in the context of this scheme, in the same amount as the subsidiary was required to record its equity in its existing accounts.

8 4.7 Ms. Curtis then describes the accounting effect of the implementation of the scheme as follows:-

"On implementation, NEW ILP will issue shares in return for this investment and under Section 62 of the Act the issue of these shares, which will have been issued at a premium, will result in the difference between the value of the consideration received and the nominal value of the shares being transferred to a share premium account. On the basis that the current market value of the old ILP is €1,578 million and the par value of the shares to be issued is €89 million, an amount of €1,489 million will be transferred to share premium. As the investment in old ILP must be recorded at €3,584, a reserve will arise in new ILP in the amount of €2,006 million. The summarised balance sheet of new ILP at the end of the first step will be as follows:"

Balance sheet of NEW ILP

	€m
Investment in subsidiary	3,584
Total net assets	3,584
Share capital	89
Share premium	1,489
Other reserve	2,006
Total equity	3,584

This other reserve (the "Other Reserve") represents the difference between the amount that the investment in old ILP must be recorded at in accordance with IAS 27 and the amount that company law requires be included in share capital and share premium.

As an immediate second step, IFRS will require new ILP to consider the carrying amount of its investment in old ILP once it has been initially recorded and consider if it is impaired. It will apply the appropriate accounting standard (in this case IAS 36 Impairment of Assets) to determine the recoverable value of the asset and, since this asset represents the entire share capital of the old ILP Group, the recoverable value is likely to be approximately €1,578 million

(being the approximate current market value of the old ILP Group). Consequently, it will be necessary to record an impairment of €2,006 million on the investment in old ILP. Normal accounting rules will record this impairment as a loss in the profit for the year. Therefore the summarised balance sheet of new ILP after the second step will be as follows:

Balance sheet of NEW ILP

	€m
Investment in subsidiary	1,578
Total net assets	1,578
Share capital	89
Share premium	1,489
Retained earnings	(2,006)
Other reserve	2,006
Total equity	1,578 "

2 4.8 It will, therefore, be seen that the reason for the so called other reserve appearing in the accounts of new ILP stems from the following:-

1. The current accounts of old ILP, properly compiled in accordance with relevant standards, requires the equity of old ILP to be recorded as €3,584M.
2. IAS 27 requires that the investment by new ILP in what will then be its subsidiary (that is old ILP) must be recorded in the same sum.
3. The current market value of old ILP must be divided as to €89M, being the issued share capital, and the balance of its current market value of €1,489M being the share premium account,

leaving it necessary to record another reserve of €2,006M which is, in substance, the difference between the amount that the investment in old ILP must be recorded at in accordance with IAS 27 and the amount that company law requires to be included in share capital and share premium accounts.

3 4.9 As pointed out it is the status of the other reserve that was the subject of the issue which I had to decide. Before going on to deal with that issue directly, it is also important to touch briefly on the reason why what might, on one view, appear to be an anomalous situation in the accounts arises, in the light of the relevant accounting standards. I turn to that issue.

5. The Rationale for the Relevant Accounting Standards

2 5.1 I propose first addressing the standards applicable to the balance sheet of old ILP. It appears on the evidence that one of the major assets on the balance sheet of old ILP is "loans to customers". This situation stems from the fact that old ILP is, in effect, the same entity as the former Irish Permanent Building Society, and is the legal entity which has directly made loans to many of the mortgage customers of old ILP. The accounting measurement rule for loans to customers is the so called "incurred loss" model. Under this model a company should only make provision for losses when it has objective evidence that the borrower is likely to default and that the loan asset is, therefore, impaired. The method for calculating the value of such impaired loans is set out in some detail in the relevant standard. On that basis a provision is made in respect of any loan where there is objective evidence currently available to the effect that the loan is impaired.

3 5.2 Thus the proper accounting treatment of a set of assets held by a company in the form of loans to its customers requires that each loan be separately assessed as to whether that loan is impaired, and if it be impaired, an exercise needs to be carried out as to the amount of provision that should be provided against that loan. I accept, on the evidence, that the current balance sheet of old ILP has been calculated in accordance with the relevant standards. The rationale behind that standard is that specific provision should be made for each individual asset, being the loan to the relevant customer, based on an objective appraisal of that customer's position.

4 5.3 The rationale behind the requirement (contained in IAS 27) that the amount to be recorded in new ILP's records in respect of its investment in its new subsidiary should be the same as the equity reflected in old ILP's accounts, is that a company or group of companies should not, by

the simple expedient of creating a new holding company at the top of its structure, be entitled to achieve a reduction in capital without going through whatever procedures company law might require to give effect to such reduction. As pointed out in Ms. Curtis's evidence, the more normal situation that applies is that the true or fair or market value of a company is likely to be somewhat larger than the equity as per the company's books, because the company will probably have some form of intangible asset (such as goodwill) not formally recorded in the company's books. However, in the circumstances which have arisen in this case, it is clear that the market value of old ILP (which is, in effect, the total value of the shares at the price currently available on the stock exchange) is significantly less than the equity recorded in that company's books. The reason for this disparity is that the market clearly takes a more pessimistic view of the company's prospects and, in particular, the extent to which the company will be able to recover the loans which it has made to its customers, than is reflected in the case by case analysis which underlies the proper accounting treatment of the same set of loans as they currently stand on the books of old ILP. In other words, a particular set of loans looked at individually and subject to a suitable provision where there is currently objective evidence that the loan is impaired, can give rise to one value. The market may have regard to other factors such as the possibility that a general worsening in the economy may lead to loans which are not currently impaired becoming impaired and may, thus, value the book of loans concerned on a more pessimistic basis. While there may be other factors at work, it would appear likely that the factor which I have just identified is one of the principal reasons why the market values old ILP at a significant discount to the equity reflected in its balance sheet.

5 5.4 Be that as it may, the other reserve, reflecting that difference, will undoubtedly appear in the accounts of new ILP before the second step in the process to which I have referred above is taken. The question which I had to decide is as to whether that other reserve can properly be described as a profit for the purposes of s. 45.

6 5.5 I turn to that question.

6. Section 45

2 6.1 Insofar as material, s. 45 provides as follows:-

2 "(1) A company shall not make a distribution (as defined by section 51) except out of profits available for the purpose;

(2) For the purposes of this Part, but subject to section 47(1), a company's profits available for distribution are its accumulated, realised profits so far as not previously utilised by distribution or capitalisation, less its accumulated realised losses so far as not previously written off in a reduction or reorganisation of capital duly made."

3 6.2 The term profit is not defined. It, therefore, falls to be determined from first principles and having regard to the jurisprudence of the courts. In that regard counsel for old ILP and counsel for the notice party drew my attention to a number of authorities in which the question of the meaning of the term "profit" was discussed. I, therefore, turn to the case law.

7. The Case Law

2 7.1 Attention was drawn to the 14th Ed. of Buckley on *the Companies Acts (1981)*, in which the editors had the following to say about profits:-

"What are profits: the language of Table A 1862, Art 73 was "out of profits arising from the business of the company." The present article is wider. There may be profits arising not from business, but from other sources. If a company acquires assets and with them carries on business, every increment of value, whether by way of appreciation of the assets or by way of profit earned in employing them, is in some sense profit. The corporation is much the richer, actually or potentially, whether the additional wealth arises from appreciation of asset or by fruit produced by employment."

3 7.2 In *Re Spanish Prospecting Company* [1911] C.H. 92, Fletcher Moulton L.J. had to consider the phrase "profits" in company law. He said the following:-

"The word "profits" has in my opinion a well-defined legal meaning, and this meaning coincides with the fundamental conception of profits in general parlance, although in mercantile phraseology the word may at times bear meanings indicated by the special context which deviate in some respects from this fundamental signification. "Profits" implies a comparison between the state of a business at two specific dates usually separated by an interval of a year. The

fundamental meaning is the amount of gain made by the business during the year. This can only be ascertained by a comparison of the assets of the business at the two dates.

...

We start, therefore, with this fundamental definition of profits, namely, if the total assets of the business at the two dates to be compared, the increase which they show at the later date as compared with the earlier date (due allowance of course being made for any capital introduced into or taken out of the business in the meanwhile) represents in strictness the profits of the business during the period in question."

The above analysis of Fletcher Moulton L.J. has been approved in this jurisdiction by Kenny J. in *Wilson v. Dunnes Stores (Cork) Limited* (Unreported, High Court, Kenny J., 22nd January, 1976) and in *Meagher v. Meagher* [\[1961\] I.R. 96](#).

4 7.3 In *Meagher* Kingsmill Moore J. set out the following considerations at p. 110:-

"In my opinion the increase in value of an asset due to a change in prices during the period of its retention can properly be regarded as a profit derived from its use... It appears to me, therefore, that any increase in value of the assets of the business between the date of the dissolution and the date of realisation, which is attributable to the use of the assets (in the sense which I give to "use") is properly to be regarded as profits, to one-third of which the plaintiff is entitled."

5 7.4 In addition, in *Rushden Heel Company Limited v. Keene* [\[1946\] 2 All E.R. 141](#), Atkinson J. stated that:-

"Profits consist of a sum arrived at by adding up the receipts of a business and by deducting all the expenses and losses, including depreciation and the like, incurred in carrying on the business."

6 7.5 Also in *McClelland v. Hyde* [\[1942\] N.I. 1](#), Babington L.J. stated:-

"The word 'profits' generally speaking means the excessive returns over outlay, but in commercial agreements, its meaning may be and often is restricted to annual pecuniary profits as would ordinarily appear in a profit and loss account."

7 7.6 Attention was also drawn by counsel on behalf of the notice party to the statement by Kenny J. in *Wilson v. Dunnes Stores (Cork) Limited* to the effect that the proper interpretation of the term "profits" must be determined by context.

8 7.7 Finally, it is important to note *Drown v. Gaumont-British Picture Corporation* [\[1937\] Ch. 402](#) which was a case concerned with the distributability of a share premium at a time when a share premium account did not have the status of paid up share capital under the Companies Acts in the United Kingdom. In *Drown* the company had made trading losses of €780,000. Against that were available €362,000 of undoubted profits and a sum of €500,000 made up in part of premiums on the issue of shares and in part of profits carried to reserve but which had, in fact, been invested in the assets of the company. The Court held that, subject to the provisions of the articles of association of any company, there was, at the level of principle, nothing legally wrong in a company dividing amongst its shareholders a premium obtained on the issue of shares so long as the sum paid out did not form part of the capital subscribed on the shares.

9 7.8 It is correct, as was noted by counsel for the notice party, that none of the case law deals with circumstances which are, in any real way, similar to the situation with which I was faced in these proceedings. However, it does seem that certain general principles can be gleaned from the authorities.

10 7.9 These principles seem to me to be the following:-

a A. The current assets of a commercial entity (and in principle, these comments would apply equally to a partnership or other trading entity as they would to a company) must, in logic, represent either the accumulated capital invested into the business or company (that is, all of the capital invested less any capital taken out) together with the accumulated net undistributed profits of the business (that is, all of the profits less all of the losses less any profits distributed, in whatever way might be appropriate, to the investors).

b B. In this context, the term profits includes both what might, for Revenue purposes, be described as capital gains or income.

c C. In principle, the term "profits" reflects a change in the assets of the entity concerned not explained by a movement in the capital invested in the entity. Obviously if further capital is invested, or if capital is returned to the investors, then that will explain a movement in the assets of the entity which does not derive from the entity having made profits. However, when any appropriate allowance is made for further investment or return of capital, then the remaining change in the assets of the entity must be its profits (or, in the case that there be a diminution, its losses).

d D. Profits over any particular period (which will, of course, be most commonly calculated on a yearly basis) amount, therefore, to the change in the assets for the period in question which cannot be explained by a movement in the capital invested.

11 7.10 It seems to me to follow from the provisions of s. 148 of [the 1963 Act](#) that profits, for the purposes of a company incorporated under that Act, and, therefore, profits for the purposes of considering whether distribution under s. 45 can take place, must mean profits calculated in accordance with the relevant applicable accountancy standards. It follows, therefore, that it is movements in the assets of the company by reference to such standards that needs to be considered in the context of determining whether profits, within the meaning of [the Act](#), can be said to have occurred.

8. Analysis

2 8.1 There can be little doubt, and it was indeed argued by counsel for the notice party and accepted by counsel for old ILP, that the characterisation of the other reserve as profits is not consistent with the normal intuitive understanding of the term profit. As is clear from the authorities to which I have referred, the general meaning of the word profit is that a company, partnership or the like has had an improvement in its assets, not explicable by a change in the amount of capital invested. It is also true that the context in which the term profit came to be analysed in the case law to which I have referred was undoubtedly different from that with which I was concerned.

3 8.2 However, the starting point has to be the fact that the other reserve is required to appear in the accounts of new ILP immediately after the scheme of arrangement is implemented and as a result of the proper application of applicable accountancy standards. If it is required to appear in new ILP's accounts, then what is its status?

4 8.3 It seems to me that logically one of a number of propositions must be correct given that the "other reserve" is required to appear in the accounts. It must be that either:-

a A. The other reserve, while appearing in the accounts, is not, in fact, an asset of new ILP at all; or

b B. If it is an asset of new ILP, then it follows from the case law to which I have referred that the other reserve must be either:-

(i) Part of the accumulated unreturned capital of new ILP; or

(ii) Part of the accumulated net undistributed profits of new ILP.

5 8.4 Each of those possibilities carries with it its own problems. I propose looking at those problems in turn.

6 8.5 The suggestion that the accounts of the company are required to include the other reserve in circumstances where the other reserve is not properly regarded as an asset of the company at all, seems to me to fly in the face of the most basic principles. If the other reserve is not an asset of the company, what is it doing on its balance sheet?

7 8.6 On the assumption, therefore, that the other reserve must represent some form of asset of the company, then it seems to follow from the fundamental definition of profit derived from the case law, that the other reserve must either amount to part of the net capital of the company (that is all capital contributed and not returned) or alternatively, must represent part of the net accumulated and undistributed profits of the company (that is all profits less all losses less any distributed profits). It is difficult to see how there is any other box into which the other reserve can fit without doing a complete injustice to the fundamental definition of profit as set out in the case law.

8 8.7 Of course the other reserve does not fit neatly into either of those boxes. To regard the other reserve as capital of new ILP is every bit as counterintuitive as to regard it as profit. I came to the view that, despite the fact that the other reserve does not easily sit in either box, it would be impossible (because it would do an injustice to the fundamental definition of how the assets of a company are made up) to regard it as being neither. It followed, in my view, that it was necessary to consider which consideration (that is net accumulated unreturned capital or net accumulated and undistributed profits) did least injustice to the logic of the situation.

9 8.8 Before going on to that question, it is necessary to pause to ask why one is being required to do any injustice to logic in the first place. It would seem unlikely (or even impossible) to be the case that, if all matters were being dealt with by reference to the same set of first principles, any such illogicality could arise. However, here not all matters are being dealt with by the application of the same first principles. The accounts of new ILP are required, as a matter of law, to be compiled in accordance with the relevant accountancy standards and not in accordance with first principles. There have been many areas in the past where deeming one thing to be another (doubtless for good reason) has had unintended consequences. Many of the more aggressive tax avoidance schemes utilised in the past built on anti-avoidance sections of tax law, which deemed things to be things which they were not, with the purpose of ensuring that parties could not artificially avoid tax which would otherwise become due. The aggressive tax scheme would build on the deeming provision to create a structure which led to a reduction in tax somewhere in the system. Once things are deemed to be something other than what they really are, then it follows that there can be all sorts of consequences, not all of which may have been anticipated at the time when the deeming provision was put in place.

10 8.9 While I am not here concerned with a deeming provision, I am concerned with something that seems to me to be analogous. The proper approach to the accounting treatment of the set of loans currently held by old ILP differs depending on whether those loans continue to be held by old ILP (in which case they must be regarded as being the value of the loans less any proper

provision made for impaired loans) or whether they are held by new ILP through old ILP as a subsidiary. In those circumstances new ILP is required to treat its equity as being the same as old ILP, but at the same time is, in truth, only subscribing the market value for old ILP shares which, for the reasons set out earlier, are valued by the market at approximately two billion euro less than the equity appearing in old ILP's books. In a sense, the same set of loans are deemed to have different values when they appear in different ways in the respective accounts of old ILP and new ILP. In those circumstances it is, perhaps, not completely surprising that, on the facts of this case, the application of those accountancy standards leads to the somewhat anomalous position with which I was faced. To the extent, therefore, that I was forced to choose between two possibilities, neither of which conformed with what might logically be said to arise on first principles, it seemed to me that that choice is forced by the appropriate accountancy treatment that is mandated by law. To the extent, therefore, that the choice will necessarily fall on an interpretation which does not strictly speaking make full logical sense, then that lack of complete logic stems from the relevant accountancy treatment.

11 8.10 In those circumstances, it is appropriate to turn to the choice with which I was faced.

9. The Choice

2 9.1 I could see no even theoretical basis for an argument in favour of treating the other reserve as net undistributed capital. New ILP received its assets, in substance, by being able to subscribe for the shares in old ILP created as part of the scheme and paid up by the cancellation of the existing shares. Those existing shares had their market value. In substance, the shareholders allowed, by virtue of the scheme, new ILP to acquire shares in old ILP in return for being given an equivalent amount of shares in new ILP. The "investment" by the shareholders, as a matter of reality, was the value of their shareholding which in substance was its market value. The other reserve was in addition to that sum. In those circumstances it is very hard to see how there could be any basis for treating it as capital. On the other hand there is a sense (albeit somewhat artificial), on which it could be said that the other reserve could be treated as a profit. The effect of the accountancy standards to which I have referred means that an investment by new ILP in obtaining the shares of old ILP for a value which, in substance, is of the order of €1.6BN must be written, at least initially, into the books of new ILP, at a value of approximately €3.6BN. While it is highly artificial to put it this way, there is at least a sense in which one could regard that fact as giving rise to an instantaneous profit in that an investment of €1.6BN acquires an asset which, while worth €1.6BN, has to be written into the books of the company in a manner which reflects the company as having assets of €3.6BN. It is only a profit in that sense. It only arises because the transaction requires the additional €2BN to be written into the books of the company. It is not a profit in any real or tangible sense. However, it seems to me that it can properly be regarded as a profit deriving from the need, in order to conform with company law, that the additional €2M requires to be written into the books of the company as a result of the transaction.

3 9.2 In that sense it seemed to me that treating the other reserve as a profit did less injustice to a logical approach to the company's accounts than treating it as net unreturned capital. For the reasons which I have already set out, I was persuaded that to regard the other reserve as being neither net accumulated unreturned capital or net accumulated undistributed profits still less as not being an asset at all, would do a level of injustice to the logic of the situation which could not be stood over. It followed that the other reserve had, therefore, in my view, to be treated as either capital or profit. It seemed to me that treating the other reserve as profit did less injustice to first principles than any other possible approach. It was for those reasons that I was satisfied that the other reserve was profit for the purposes of s. 45.

4 9.3 It was common case between the parties, and I agree, that, on the basis of the evidence of Ms. Curtis, it was clear that, in the event that, as a matter of law, as opposed to a matter of accountancy, the other reserve was properly to be treated as a profit, that it could be said, in the circumstances of the scheme, that it should be treated as a realised profit. It follows that I was satisfied that the other reserve was a realised profit capable of distribution for the purposes of s. 45.

10. Conclusions

2 10.1 I, therefore, indicated to the parties, and now confirm, that in my view, in the special and unusual circumstances of this case, the other reserve, arising in the way in which it does as a result of the proper application of relevant and applicable accountancy principles, gives rise to a realised profit for the purposes of s. 45.

3 10.2 It is also obvious that the unusual facts of this case have demonstrated that there is a problem with the relevant accountancy standards, at least insofar as they apply to circumstances such as those which have arisen in this case. There is, of course, an entirely logical basis for each of the accountancy principles looked at by itself. It may well be that the cumulative effect of a number of different provisions (each making sense on its own) has given rise to the unusual circumstances which have arisen in this case. Be that as it may, this case shows the need for an urgent revision, at least in part, of the relevant accountancy principles. The whole point of accountancy standards is to maximise the chances of the accounts of a company (or indeed any other business) properly reflecting the true economic position of the business concerned. Where the facts of a case (even an unusual one) demonstrate that that may not be always the case, then the proper solution is to revisit the appropriate accountancy standards to ensure that the lacuna that has been identified is dealt with in an appropriate fashion. It is not, of course, for me to

suggest the manner in which the relevant standards ought be adjusted to prevent the problem which is at the heart of this case reoccurring.

EXHIBIT 3

© Copyright 2023, vLex Justis. All Rights Reserved.

Wilson v Dunnes Stores (Cork) Ltd

Jurisdiction:	Ireland
Judge:	Kenny J.:
Judgment Date:	01 January 1982
Neutral Citation:	{:value=>"1976 WJSC-HC 1470", :attribution=>"Judgment", :fulltext_available=>true, :vid=>793349209, :url=>"/vid/793349209"}
Reported In:	{:value=>"1976 WJSC-HC 1470", :attribution=>"Judgment", :fulltext_available=>true, :vid=>793349209, :url=>"/vid/793349209"}
Date:	01 January 1982
Docket Number:	No. 28/1974
Court:	High Court

Id. vLex Justis VLEX-793349209

Link: <https://justis.vlex.com/vid/wilson-v-dunnes-stores-793349209>

Text

1976 WJSC-HC 1470

THE HIGH COURT

No. 28/1974

WILSON v. DUNNES STORES (CORK) LTD
REVENUE

Between

T.J. WILSON, INSPECTOR OF TAXES
Appellant

and

DUNNES STORES (CORK) LTD.

Judgment delivered 22nd January 1976 by Kenny J.:

Kenny J.:

Dunnes Stores (Cork) Ltd. ("the tax payer") was incorporated in the State on the 19th of September 1955. The liability of the members was limited and the capital was £20,000 divided into 20,000 shares of £1 each. The Regulations in Table A in the First Schedule to the Companies (Consolidation) Act 1908 with some exceptions applied to the tax payer which was a private company and so the articles contained restrictions on the transfer of shares. Articles 47 and 48 dealing with winding up read:

2 "47. If the Company shall be wound up the assets remaining after payment of the debts and liabilities of the company and the costs of the liquidation shall be applied: first, in repaying to the members the amounts paid up or credited as paid up on the shares held by then respectively; and the balance (if any) shall be distributed among the members in proportion to the number of shares held by then respectively; provided always that the provisions hereof shall be subject to the rights of the holders of shares (if any) issued upon special conditions.

3 "48. With the sanction of an extraordinary resolution of the members any part of the assets of the company including any shares in or securities of other companies, may be divided among the members of the company in specie or may be vested in trustees for the benefit of such members and the liquidation of the company may be closed and the company dissolved but so that no member shall be compellable to accept any shares whereon there is any liability"

By a special resolution passed on the 1st of January 1970 the articles of association of the company were amended by deleting the clauses of Table A numbered 95 to 102 inclusive (which deal with dividends and reserves) and by the insertion of a new article numbered 52 which read:

"52. No portion of the profits of the company shall be paid or transferred by way of dividend, cash bonus or capital bonus to any member of the company in respect of any shares held by him".

The tax payer was assessed to Corporation Profits Tax on estimated profits of £90,000 for the accounting period of twelve months which ended on the 31st of December 1970. Its advisers contended that there was no liability to this because it was a corporate body which by its constitution was precluded from distributing any profits among its members and so was not liable to corporation profits tax. (s.47 of the Finance Act 1932). The Appeal Commissioner (Mr. Anthony McDowell) agreed with this contention and discharged the assessment. He was then asked to state a Case for this court.

It is now necessary to outline the maze of legislation which deals with Corporation Profits Tax. Section 52 of the Finance Act 1920 provided that there should be charged on all profits to which Part V of the Act applied a duty called Corporation Profits Tax. The profits to which this applied were the profits of a British Company carrying on any trade or business or any undertaking of a similar character including the holding of investments. In a later part of the same section "British Company" was defined as meaning any company incorporated by or under the laws of the United Kingdom. The expression "company" was defined as meaning "any body corporate so constituted that the liability of its members is limited but does not include a company formed before the commencement of this Act whose assets consist wholly of stock or other securities issued by any public authority and formerly held by the persons by whom the company was formed." Section 43 of the British Finance Act 1922 (which was applied to the State by s.40(1) of the Finance Act 1926) provided that Corporation Profits Tax was not to be charged on the profits of an association which was registered under s.20 of the Companies (Consolidation) Act 1908 as a company with limited liability without the addition of the word limited to its name, so long as it continued so registered, or on the profits of a company which was established solely for the advancement of religion or education and which under its memorandum or articles of association who precluded from distributing any part of its profits to its members.

Section 47 of the Finance Act 1932 provided, so far as is relevant to this case:

"47(1) In respect of every accounting period ending after the 31st day of December 1930:"

(a) Sub-section (3) of section 52 of the Finance Act 1920, shall be construed and have effect as if, in the definition of the word company contained in that sub-section the words "so constituted that the liability of its members is limited" were omitted and the words "nor a private company the liability of whose members is unlimited nor any corporate body which by its constitution is precluded from distributing any profits among its members" were added to the said definition at the end thereof."

The result of this masterpiece of drafting was that "company" for the purposes of part V of the Finance Act 1920 dealing with Corporation Profits Tax was to be read as "any body corporate but does not include a company formed before the commencement of this Act whose assets consist wholly of stock or other securities issued by any public authority and formerly held by the persons by whom the company was formed nor a private company the liability of whose members is unlimited nor any corporate body which by its constitution is precluded from distributing any profits among its members".

Section 47 sub(1) of the Finance Act 1932 was amended by s.12 of the Finance Act 1943 so that the exemption from Corporation Profits Tax on the ground that the company was precluded from distributing any profits among its members was limited to those companies which were so precluded before the 5th of May 1943. Section 12 of the Finance Act 1943 was wholly repealed by s.21 of the Finance Act 1954. The position of these companies was altered by s.39 of the Finance Act 1972 but it was agreed that as the question involved in this Case related to the accounting period which ended on the 31st of December 1970, the changes made by s.39 of the Finance Act 1972 were not relevant.

Counsel for the Inspector contended that the tax payer was not a corporate body which by its constitution was precluded from distributing any profits among its members because, he said, the constitution consisted of the memorandum of association only. In my opinion the constitution referred to in s.47 of the Finance Act 1932 consists of the memorandum and articles of association. The memorandum of association cannot in my view be the constitution of the company for nor it does not ever contain any provision about the election of directors or their removal from office or the holding of meetings or the rights of shareholders. I am fortified in this conclusion by the sense in which Lord Justice Lindley, that the great master of company law, used the words "the constitution of the company" in Re Bridgewater Navigation Company (1891) 2 Ch.317 at p.327. I shall be referring to this case in greater detail when dealing with the second argument which was advanced by Counsel on behalf of the Inspector. It is sufficient here to say that the company was incorporated under the Companies Act 1862 and had a memorandum and articles of association. When Lord Justice Lindley was dealing with the effect of capitalizing profits he said: "Moreover, this is a matter on which a majority cannot bind a minority unless expressly empowered to do so by the constitution of the company, either as originally framed or as subsequently modified by some authority binding on all". Provisions in relation to capitalizing profits always appear in the Articles of Association and I have never seen a Memorandum of Association which contained any provision in relation to this. Accordingly I reject the argument that the constitution of the tax payer does not preclude it from distributing its profits among its members because the new article 52 is in the Articles and not in the memorandum of association.

The next contention by Counsel for the Inspector was that the presence of articles 47 and 48 in the Articles of Association had the consequence that the tax payer was not precluded from distributing profits among its members. These articles deal with winding up only and the effect of them is that if the company goes into liquidation, the assets remaining after payment of the debts and liabilities of the company and the costs of the liquidation are to be applied in repaying to the members the amounts paid up or credited as paid up on the shares and the balance remaining is to be distributed among the members in proportion to the number of shares held by them provided that any part of the assets of the company may with the sanction of an extraordinary resolution be divided among the members in specie. This, it was said, meant that the profits could be distributed among the members. Section 275 of the Companies Act 1963 provides: "Subject to the provisions of this Act as to preferential payments, the property of a company shall, on its winding up, be applied in satisfaction of its liabilities *pari passu* and, subject to such application shall, unless the articles otherwise provide, be distributed among the members according to their rights and interests in the company." The fallacy of the Inspector's argument is that while what is distributed to the members in a winding up may be identified as having been profits, it is not distributed as profits but as a distribution in the winding up of the company or (as some call it) surplus assets. In a winding up of a company there may be liabilities which are related to the amount of the profits made before the company went into liquidation or the articles may confer on some shareholders a right to a dividend related to the amount of the profits before the company goes into liquidation but these are cases of the discharge of liabilities incurred before liquidation. What remains after discharge of liabilities is distributed among the shareholders not as profits but as surplus assets or as a distribution in the winding up. All the cases are consistent with this view and, on close examination, they refute the contention that what is distributed in a winding up is in any sense profits of the company.

The first case relied on by Counsel for the Inspector was the case I have already referred to, *Re Bridgewater Navigation Company* (1891) 2 Ch. 317. This decision was approved in the House of Lords in *Scottish Insurance Corporation Limited v. Wilson* (1949) A.C.462 but can be understood only by reference to earlier litigation in relation to the same company under the title of *Birch v. Cropper* (1889) 14 App. Cas 525.

The Bridgewater Navigation Company Limited was incorporated in 1872 with a capital of £500,000 in 500 shares of £1,000 each. In the same year special resolutions were passed dividing the capital into 50,000 shares of £10 each and increasing the capital to £800,000 by the creation of 80,000 new shares of £10 each. In 1874 the company adopted new Articles of Association. Articles 3 and 85 read:

"3. The company may, by the resolution of a general meeting, increase the capital beyond the amount mentioned in the memorandum of association by the creation of new shares of such amounts per share and in the aggregate as such resolution shall

direct, and any new capital so created may carry such preferential right to dividend or such priority in the distribution of assets, or be subject to such postponement of dividends or in the distribution of assets, as any resolution of a general meeting passed previously to the issue of any such new capital shall direct. But, save as specified in any such resolution, all new capital shall be subject to the same provisions in all respects as if it had been part of the original capital mentioned in the memorandum of association.

Article 85. Subject to the last preceding article (which empowered the directors to form a reserve fund out of profits), and subject to any arrangement which may from time to time have been entered into relative to the remuneration of any manager or other officer of the company by way of commission or percentage on the net profits of the company, or on any part thereof, the entire net profits of each year shall belong to the holders of the shares of the company, and be divided pro rata upon the whole paid up share capital of the company, and the directors may, with the sanction of the company in general meeting, declare a dividend to be payable thereout on the shares in proportion to the amounts paid up thereon".

In 1880 it resolved that 30,000 new shares should be issued as preference shares giving the holders of them the right to a preferential dividend of 5%. The articles did not contain any provision (which has now become standard practice) by which the rights of preference shareholders in a winding up were limited to payment of the arrears of dividend and repayment of the capital paid up on the preference shares. The full amount due on the preference shares was paid but the amount called on the ordinary shares was £3.50. When the company went into voluntary liquidation, there was a substantial surplus remaining after payment of the debts and the amounts paid up on the capital. The preference shareholders contended that the surplus should be distributed among the members on the basis of the amounts paid up on the shares.

The House of Lords, which had a majority of Irish judges advising it, held that the surplus assets were to be divided among the holders of all the shares in proportion to the shares held by them.

The subsequent litigation related to the question whether the holders of the ordinary shares were entitled to sums which the directors, before the voluntary winding up had commenced, had appropriated out of profits to reserve funds. Article 85 which I have already quoted provided that, subject to the powers of the directors to form reserve funds, the entire not profits of each year should belong to the holders of the shares of the company. The ordinary shareholders contended that the sums appropriated to reserves formed a part of the profits of the company to which they were entitled under the very unusual Article 85 while the preference shareholders contended that the effect of setting the sums aside to reserve was to capitalize them. The Court of

Appeal held that as the profits could be identified, they belonged to the ordinary shareholders because they were undrawn profits. The case is not an authority for the proposition that what is distributed after payment of liabilities and after discharge of the amounts due to the shareholders under the articles of association, is profits.

The next case referred to was the much quoted decision in the Spanish Prospecting Company Limited (1911) 1 Ch.92. Two individuals agreed to serve a company at a fixed salary which they were not to be entitled to draw "except only out of profits (if any) arising from the business of the company which may from time to time be available for such purpose, but such salary shall nevertheless be cumulative and accordingly any arrears thereof shall be payable out of any succeeding profits available as aforesaid". When the company went into voluntary liquidation its assets included certain debentures and after the liquidation had commenced, these were sold. All the creditors except the two individuals were paid in full and all the subscribed capital was returned to the shareholders. There was a surplus in the hands of the liquidator. This surplus included an identifiable sum consisting of the difference between the price at which the debentures were acquired by the company and that at which they were sold. The two individuals were held entitled to be paid their salaries out of this profit. The case is authority for the proposition that when there is a contract providing for payments related to profits, the contracting parties are entitled to be paid the amount calculated by reference to profits even if they are realised after the liquidation has commenced. It is not an authority for the proposition that sums remaining after discharge of liabilities, when distributed, are profits. The judgment of Lord Justice Fletcher Moulton is cited in all the text books as an authority on the meaning of the word "profits". He says that the word has a well defined legal meaning. This matter was not discussed in argument but I do not wish to be taken as accepting the view that a word in common use is to be regarded as having a legal meaning apart from the context in which it is used. It seems to me that the meaning of the word "profits" must in every case be determined by the context in which it is used. The history of the meaning of the word "money" in legal documents is a good illustration of the dangers of forcing a word in common use into a procrustean legal meaning.

The next authority in point of time is Inland Revenue Commissioners v. Blott (1920) 2 K.B. 657. In that case the profits of a company were capitalized and the Revenue Commissioners claimed super tax (as it was then called) on the value of the additional shares. The High Court, the Court of Appeal and the House of Lords rejected that contention. In the Court of Appeal Lord Justice Scrutton made this remark: "A company is liquidated during the year of assessment, and the liquidator returns to the shareholders, (1) their original capital, (2) accretions to capital due to increase in the value of the assets of the company, (3) the reserve fund of undivided profits in the company, (4) the undivided profits of the last year of assessment. Heads (3) and (4) will have paid income tax through the assessment of the company; but it appears to me that none of the heads will be returnable to super tax as (sic) assessment; they are not income from property but the property itself in course of division".

The last authority, Inland Revenue Commissioners v. Burrell [1924 2 K.B. 52](#) seems to me to be conclusive that when a company is in liquidation and there is a surplus of assets over liabilities, the surplus, even if it consists in part of undivided profits, is not in any sense profits. Lord Justice Atkin said (p.67) when speaking of the effect of the winding up: "The property of the company remains the property of the company. The liquidators duty is to realize it, to pay off the liabilities and distribute the remaining assets amongst the shareholders subject to the rights given under the articles. The liquidator cannot declare a dividend or distribute a dividend. He deals with assets. He need not trouble himself with the question whether the assets in the company's books represent capital or uncapitalised profits".

It follows that the tax payer was by its constitution precluded from distributing any profits among its members despite the presence of articles 47 and 48 in its constitution.

The decision of the Appeal Commissioner was correct and the question which he asks will be answered "Yes".

EXHIBIT 4

**IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE**

In re:

MALLINCKRODT PLC, *et al.*,

Reorganized Debtors.

OPIOID MASTER DISBURSEMENT TRUST II,

Plaintiff,

V.

ARGOS CAPITAL APPRECIATION MASTER
FUND LP, *et al.*,

Defendants.

Chapter 11

Case No. 20-12522 (JTD)

(Jointly Administered)

Adversary Proceeding

No. 22-50435 (JTD)

AFFIDAVIT OF DR. ISRAEL SHAKED

Table of Contents

I.	Introduction.....	1
II.	Qualifications.....	2
III.	Mallinckrodt’s Position in the Opioid Market.....	5
	A. Overview of Mallinckrodt’s Opioid Business.....	5
	B. Mallinckrodt’s Historical Opioid Shipments	7
IV.	Mallinckrodt’s Share Repurchase Program	14
V.	U.S. GAAP Treatment of Contingent Liabilities.....	15
VI.	Mallinckrodt’s Opioid Liabilities Were Probable at the Time of the Share Repurchases... 19	
	i. At the Time of the Share Repurchases the Opioid Crisis Was Declared an Epidemic and Opioid Related Deaths Were Rising	20
	ii. Opioid-Related Litigation and Investigations Existed Prior to and at the Time of the Share Repurchases.....	22
	iii. Mallinckrodt Faced DEA and Other Investigations Prior to the Share Repurchases.....	24
VII.	Mallinckrodt’s Opioid Liabilities Were Reasonably Estimable	26
	A. Societal Cost of Opioid Epidemic	27
	i. Overview of the Opioid Studies	28
	ii. Societal Cost per MME and Dosage Shipped	36
	iii. Mallinckrodt’s Opioid Liability as of December 31, 2014	37
	iv. Mallinckrodt’s Opioid Liability as of December 31, 2015	39
	v. Mallinckrodt’s Opioid Liability as of December 31, 2016	41
	vi. Mallinckrodt’s Opioid Liability as of December 31, 2017	44
	vii. Summary of Mallinckrodt’s Opioid Liabilities	47
	B. Corroborating Evidence of Mallinckrodt’s Opioid Liabilities	48
	i. Purdue’s \$634.5 Million Guilty Plea in 2007.....	48
	ii. Mallinckrodt Management Stated Opioid Liability in Excess of \$30 billion	51
	iii. Purdue Disclosure Statement Admitted to Trillions of Damages	53
VIII.	Mallinckrodt Did Not Have Profits Available for Distribution at the Time of the Share Repurchases	54
IX.	Summary of Conclusions.....	56
	Exhibits	58

AFFIDAVIT OF DR. ISRAEL SHAKED

I. Introduction

1. I, Israel Shaked, under penalty of perjury under the laws of the United States, declare that I have personal knowledge of the information contained in this affidavit, and that the following is true and correct to the best of that knowledge.
2. I have reviewed and analyzed certain documents regarding Mallinckrodt plc (“Mallinckrodt,” “MNK,” or the “Company”) listed in Exhibit 1.
3. I was asked by counsel to determine whether, in my opinion, Mallinckrodt had sufficient profits available for distribution to repurchase its own shares from 2014 – 2018.
4. Based on my review of the available evidence, it is my opinion that:
 - a) At the time Mallinckrodt repurchased shares, Mallinckrodt’s opioid liabilities were probable.
 - b) At the time Mallinckrodt repurchased shares, Mallinckrodt’s opioid liabilities were reasonably estimable.
 - c) As Mallinckrodt’s opioid liabilities were probable and reasonably estimable, the Company should have accrued a contingent liability.
 - d) If Mallinckrodt had correctly accrued a contingent liability at the time of the share repurchases, Mallinckrodt’s own financial statements would have shown Mallinckrodt that it did not have sufficient profits available for distribution to conduct the share repurchases.
 - e) Mallinckrodt repurchased almost \$1.6 billion of its own shares without sufficient profits available for distribution to do so.

5. The remainder of this affidavit outlines my qualifications, methodology, findings, and support for the conclusions summarized above.

II. Qualifications

6. I am a Professor Emeritus of Finance and Economics at Boston University's Questrom School of Business in Boston, Massachusetts and Senior Managing Director of The Michel-Shaked Group, a firm that provides corporate finance and business consulting services to law firms, governmental agencies and corporations worldwide. For over 43 years, I have taught at Boston University courses at the doctoral, graduate and undergraduate levels on various topics, including financial institutions and markets, corporate finance, business valuation, financial economics, and general management. For 19 years, I was the Director of the Boston Chartered Financial Analysts ("CFA") Examination Review Program, a three-level program preparing investment professionals for a series of examinations leading to a worldwide certification by the CFA Institute (f/k/a Association for Investment Management and Research).
7. I was a contributing editor to the American Bankruptcy Institute Journal for 20 years. I was the co-founder and Director of the Institute of Chartered Pension Professionals ("ICPP"). The ICPP offered board members of public employee pension funds a certification program covering a wide range of investment-related topics, including economics, accounting, valuation, equity securities, fixed income securities, portfolio selection and management, alternative investments (including real estate), and ethics.
8. In addition to my academic work, for the last four decades, I have also provided consulting, valuation, investment, investment banking, and general business consulting services to companies worldwide on a wide range of issues including valuation, restructuring,

investment analysis, economic analysis, modeling, corporate finance, solvency, marketing, general management, accounting, capital markets, financial analysis and other issues. I have delivered hundreds of seminars on these topics to senior corporate executives in North and South America, Europe and Asia and to law firms nationwide. I have also acted as a consultant to numerous governmental agencies, including the U.S. Securities and Exchange Commission (“SEC”), the U.S. Internal Revenue Service (“IRS”), The Department of Justice (“DOJ”), The U.S. Department of Labor (“DOL”), Pension Benefit Guarantee Corporation (“PBGC”), Federal Deposit Insurance Corporation (“FDIC”), and the Commonwealth of Massachusetts.

9. As co-founder and Senior Managing Director of The Michel-Shaked Group, I have experience working on litigation analysis and expert witness projects on various topics, including valuation, profitability analysis, capital markets, securities, damages, economic analysis, investments, antitrust, statistics, distress/restructuring, bankruptcy, preference, fraudulent conveyance, solvency, capital adequacy, intellectual property, employment, taxation, derivatives, accounting, insider trading, investment banking, real estate, insurance, and health care. I have testified before the U.S. Congress’ House Ways and Means Committee on the issues of leveraged buyouts (“LBOs”), acquisitions and taxation. I have also been accepted as an expert witness and testified in U.S. Tax Court on behalf of both the IRS and petitioners. Additionally, I have testified as an expert witness in the United States Bankruptcy Court, United States District Courts, Delaware Chancery Court and other courts.
10. I have performed economic, financial and overall management analyses of numerous companies covering a wide range of industries including aerospace and defense, airlines, aircraft leasing, asset management, auto and truck, basic materials, biotechnology, business services, capital goods, cement, chemicals, communications/networking, consumer

products, distribution, electronics, energy, engineering & construction, entertainment, financial services, food & beverage, gaming/casinos, health care services and products, home improvement, imaging, insurance, leisure & hospitality, manufacturing, media, mining, movie studios/production, natural resources, nursing homes, metals, oil & gas, personal & household products, personal services, pharmaceuticals, pharmacy/drug distribution, institutional pharmacies, real estate, professional sports franchises, recreational products, restaurants, retail, semiconductors, services, software & programming, steel & iron, supermarkets, technology, television network, tobacco, transportation, travel & cruise, and electric, gas, and water utilities.

11. My research covers several areas including valuation, economic and profitability analyses, financial distress/restructuring, solvency, capital adequacy, preferences, fraudulent conveyance, bankruptcy, LBOs, international business, investments, mergers and acquisitions, corporate structure analysis, corporate financial decisions, accounting, investment analysis, damages and capital markets. As shown in Exhibit 2, I have published extensively on these subjects in leading journals such as the Butterworths Journal of International Banking and Financial Law, California Management Review, Commercial Lending Review, European Financial Management, Financial Analysts Journal, Financial Management, The Financial Review, The Financier, Journal of Business Finance and Accounting, Journal of Applied Finance, Journal of Corporate Finance, Journal of Forensic Economics, Journal of General Management, Journal of International Business Studies, Journal of Portfolio Management, Journal of Risk and Insurance, Journal of Taxation, Journal of Corporate Renewal, Journal of Banking & Finance, Journal of Money, Credit and Banking, The Machinery & Technical Specialists Journal, The Corporate Growth Report, Litigation Economics Review, Managerial Finance, North American Journal of Economics

and Finance, Strategy and Business, Social Science and Medicine, and the American Bankruptcy Institute Journal.

12. I have published five books: Finance and Accounting for Lawyers, Takeover Madness: Corporate America Fights Back, The Complete Guide to A Successful Leverage Buyout, and A Practical Guide to Bankruptcy Valuation (First and Second Editions).
13. I have a Doctor of Business Administration from the Harvard Graduate School of Business Administration. In addition, I have a Bachelor of Arts in Economics and a Bachelor of Arts in Statistics from the Hebrew University of Jerusalem. I also have a Master of Business Administration with a concentration in Finance from the Hebrew University of Jerusalem.
14. My curriculum vitae is attached as Exhibit 2. The documents that I considered in preparing this Report are listed in Exhibit 1.

III. Mallinckrodt's Position in the Opioid Market

A. Overview of Mallinckrodt's Opioid Business

15. Mallinckrodt was incorporated in Ireland on January 9, 2013 to hold the pharmaceutical business of Covidien plc, which effected a spin-off transaction of Mallinckrodt on June 28, 2013. At the time of the spin-off, Mallinckrodt became a separate entity and publicly traded company. Beginning in 2015, Mallinckrodt's reportable segments included "Specialty Brands" and "Specialty Generics."¹ In its 2015 annual report, Mallinckrodt stated that the Specialty Brands segment "markets branded pharmaceutical and biopharmaceutical products"² for pain management and autoimmune and rare diseases, while its Specialty

¹ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 4.

² Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 6.

Generics (“SpecGx”) segment “markets drugs that include a variety of product formulations containing hydrocodone, oxycodone and several other controlled substances”³ and “represents the broadest product line of opioid and other controlled substances (primarily DEA⁴ Schedules II and III) currently available from a single manufacturer.”⁵ SpecGx also included Mallinckrodt’s active pharmaceutical ingredient (“API”) business that “provides bulk API products, including opioids and acetaminophen, to a wide variety of pharmaceutical companies, many of which are direct competitors of our [MNK] Specialty Generics finished dosage business.”⁶ Mallinckrodt’s products and product families in the SpecGx portfolio included opioids and opioid API’s “hydrocodone (API) and hydrocodone-containing tablets,” and “oxycodone (API) and oxycodone-containing tablets.”⁷

Mallinckrodt sold its API’s to other opioid manufacturers who used the API’s to create a finished dosage product that competed with Mallinckrodt’s own offerings. In other words, Mallinckrodt was involved in the production of opioids for competing manufacturers, in addition to offering the “broadest product line of opioid[s].”⁸

16. Additionally, from 2010 to 2014, Mallinckrodt produced a branded opioid product called Exalgo, which launched in 2010. Exalgo was a “long-acting, once-daily form of hydromorphone.”⁹ Mallinckrodt sold this branded product until 2014, when exclusivity ended and the Company, along with other manufacturers, released generic competition for

³ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 7.

⁴ Drug Enforcement Agency.

⁵ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 7.

⁶ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 7.

⁷ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 7.

⁸ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 7.

⁹ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, pp. 6 – 7.

the product.¹⁰ Mallinckrodt also produced another opioid product called Xartemis XR. This product was an extended-release formulation that Mallinckrodt created and received U.S.

Food & Drug Administration (“FDA”) approval for in 2014.¹¹

17. Mallinckrodt also manufactured generic formulations of the branded drugs that have entered the marketplace.¹² While Mallinckrodt had launched some branded opioid products, the majority of its opioid related production and sales were from generics and APIs.

B. Mallinckrodt’s Historical Opioid Shipments

18. In order to analyze Mallinckrodt’s historical opioid shipments, I reviewed data from the U.S. Department of Justice’s Automation of Reports and Consolidated Order System (“ARCOS”) database that had been processed and reviewed by SLCG Economic Consulting.¹³ The ARCOS data processed by SLCG “has been used as the foundational data for opioid litigation across the country for the past five years”¹⁴ This data is organized geographically by State and by County, and contains separate reports related to distributors of opioids, opioid labelers (i.e., manufacturers), and pharmacies. The data for labelers contained shipment level data, measured by morphine milligram equivalents (“MME” or “MMEs”) and by dosage, annually from 2006 – 2019.¹⁵ However, this data also included treatment drugs such as methadone and buprenorphine, which I removed from

¹⁰ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 6.

¹¹ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 48, 90.

¹² Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 6 – 9.

¹³ Available at: <https://www.slcg.com/opioid-data/>.

¹⁴ <https://www.slcg.com/opioid-data/>. Accessed on December 22, 2023.

¹⁵ MME, “equates the many different opioids into a standard value that is based on morphine and its potency” using a “standard conversion factor developed by the CDC [Center for Disease Control].” “MME is calculated by adding the total daily amount of each opioid that a patient is prescribed, converting each value to MME using a conversion factor based on morphine, then calculating the average daily rate.” Prescription Drug Monitoring Program, “Morphine Milligram Equivalents Fact Sheet,” Maryland Department of Health.

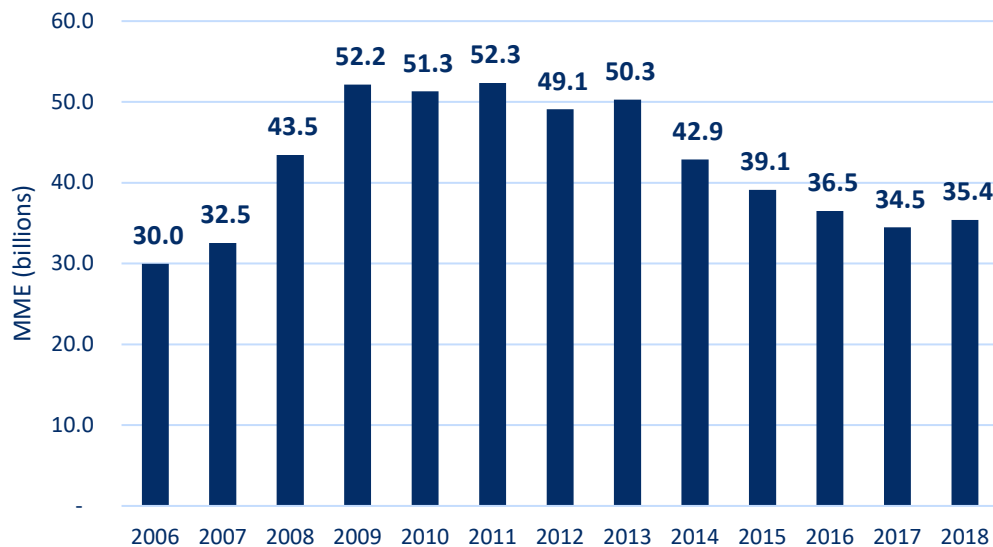
the MME and dosage data because they are used to treat opioid addiction.¹⁶ To be conservative in my approach to determining Mallinckrodt's opioid liability, I rely on SLCG's 2006-2019 processed data adjusted for the removal of methadone and buprenorphine, among other adjustments, ("ARCOS data").¹⁷

19. From 2006 through 2018, Mallinckrodt's annual shipments of opioids ranged from a low of 30.0 billion MMEs to a high of 52.3 billion MMEs. Over the same period, Mallinckrodt's cumulative MMEs shipped was 549.5 billion and its average annual MME shipments were 42.3 billion. Figure 1 below summarizes Mallinckrodt's opioid shipments (by MME) from 2006 to 2018.

¹⁶ In order to be conservative, I have excluded methadone from my calculations. There is some evidence that methadone could be included in my analysis, which would increase Mallinckrodt's liability. For example, a 2012 press release from the CDC states, "methadone accounted for 2 percent of painkiller prescriptions in the United States in 2009, but was involved in more than 30 percent of prescription painkiller overdose deaths." See, "Methadone linked to 30 percent of prescription painkiller overdose deaths," CDC Newsroom, July 3, 2012. Additionally, while overdose deaths involving methadone have decreased from a high of 5,518 in 2007, there continue to be a material number of drug overdose deaths involving methadone (2,740 in 2019). Hedegaard, Holly, Arianaldi M. Miniño, and Margaret Warner, "Drug Overdose Deaths in the United States, 1999-2019," NCHS Data Brief No. 394, December 2020, Data table for Figure 3. "Age-adjusted rates of drug overdose deaths involving opioids, by type of opioid: United States, 1999-2019."

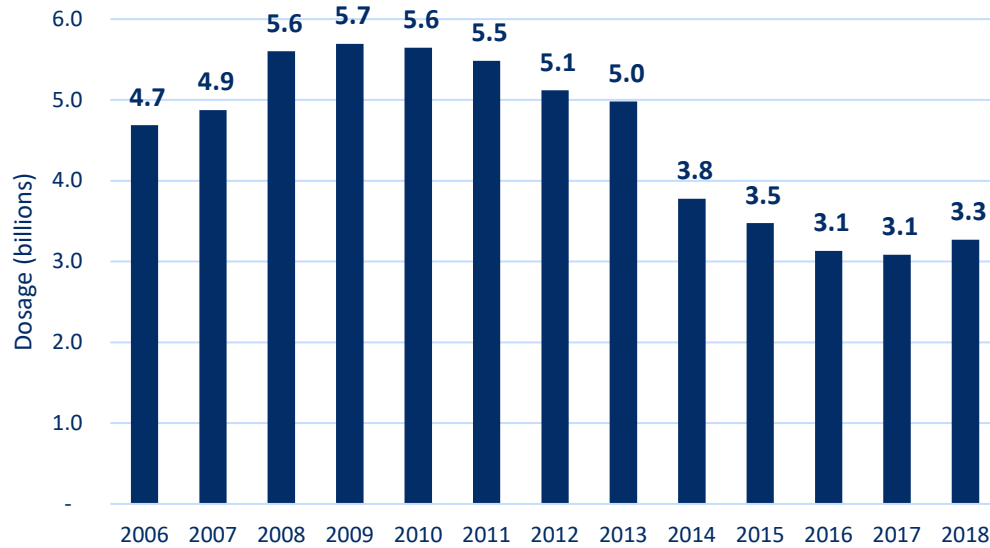
¹⁷ To be consistent with SLCG data, I also recalculated the MME using the adjustments mentioned in the Appendix 4 of redacted SLCG report. To further process and clean the data, the following exclusions were made:

- Transactions with "X" as a value in the "TRANSACTION_CODE" field were excluded.
- Transactions with a value in both the fields "CORRECTION_NO" and "ACTION_INDICATOR" were excluded.
- Transactions with "D" as a value in the "ACTION_INDICATOR" field were excluded.
- Transactions with "REVERSE DISTRIB" as a value in the "REPORTER_BUS_ACT" field were excluded.
- Transactions were excluded where "BUYER_BUS_ACT" field had any of the following as values: "REVERSE DISTRIB", "RESEARCHER (I)", "RESEARCHER (II-V)", "ANALYTICAL LAB", "EXPORTER", "IMPORTER", "IMPORTER (C I,II)". Furthermore, I excluded the buyers' business activities which could be classified as manufacturers and distributors.
- Transactions with "P" (purchase) or "R" (return) as a value for the "TRANSACTION_CODE" field were excluded.
- Transactions from non-US state ('PR','VI','AP','GU','MP','PW','AS','AE','AA') were excluded.
- Furthermore, conservatively I have excluded three transactions with erroneous base weight. These three transactions accounted for 7,000,000 MME in South Dakota for Mallinckrodt during 2011.

Figure 1: Mallinckrodt's U.S. Opioid Shipments (MME) from 2006 to 2018¹⁸

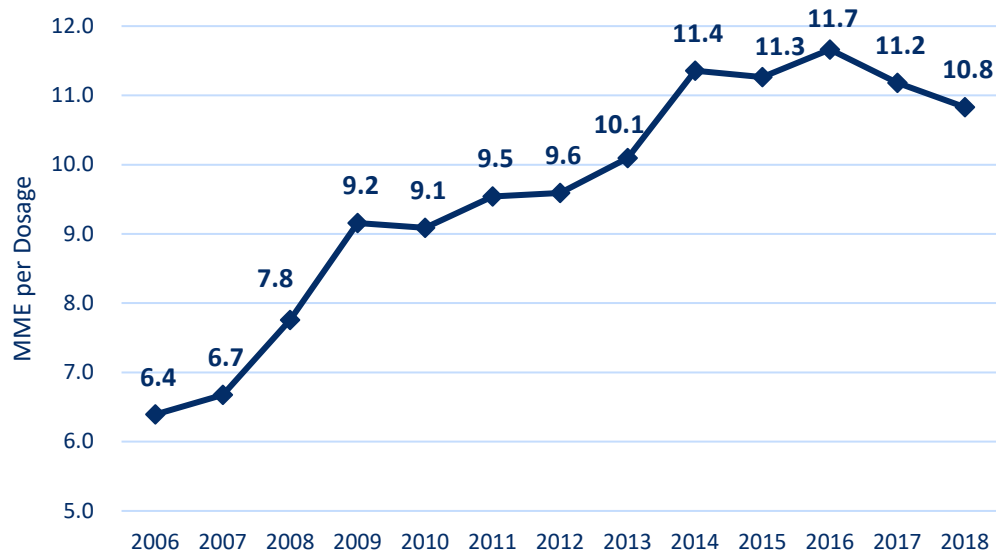
20. Mallinckrodt's opioid shipments, measured by dosage, followed a similar trend to its shipments by MME. From 2006 to 2018, Mallinckrodt's opioid shipments by dosage ranged from a low of 3.1 billion to a high of 5.7 billion. Cumulatively, from 2006 to 2018, Mallinckrodt's dosages shipped totaled 58.8 billion and its average annual dosages shipped over the period was 4.5 billion. Figure 2 summarizes Mallinckrodt's opioid shipments (by dosages) from 2006 to 2018.

¹⁸ ARCOS data.

Figure 2: Mallinckrodt's U.S. Opioid Shipments (Dosage) from 2006 to 2018¹⁹

21. I also observed that analyzing the ratio of MME shipments to dosage shipments shows that as time went on, from 2006 – 2018 Mallinckrodt shipped higher strength opioid medication, as shown in Figure 3, below.

¹⁹ ARCOS data.

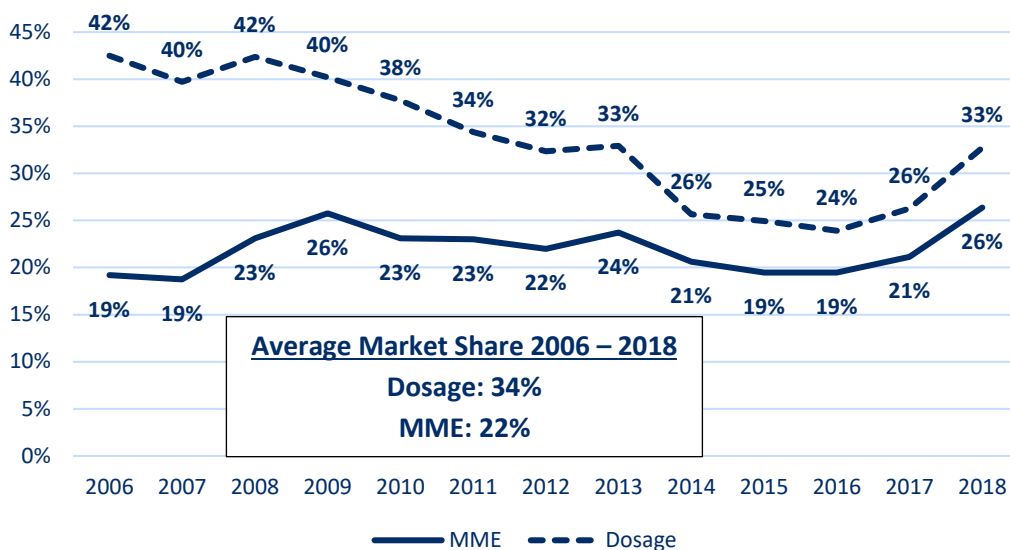
Figure 3: MNK's U.S. Opioid Shipments (MME per Dosage) from 2006 to 2018²⁰

22. Mallinckrodt's large volume of opioid shipments resulted in its significant market share.²¹

From 2006 to 2018, Mallinckrodt's average market share based on MMEs shipped was 22% and based on dosages shipped was approximately 34%. Figure 4 below summarizes Mallinckrodt's annual market share based on MMEs and dosages from 2006 to 2018.

²⁰ ARCOS data.

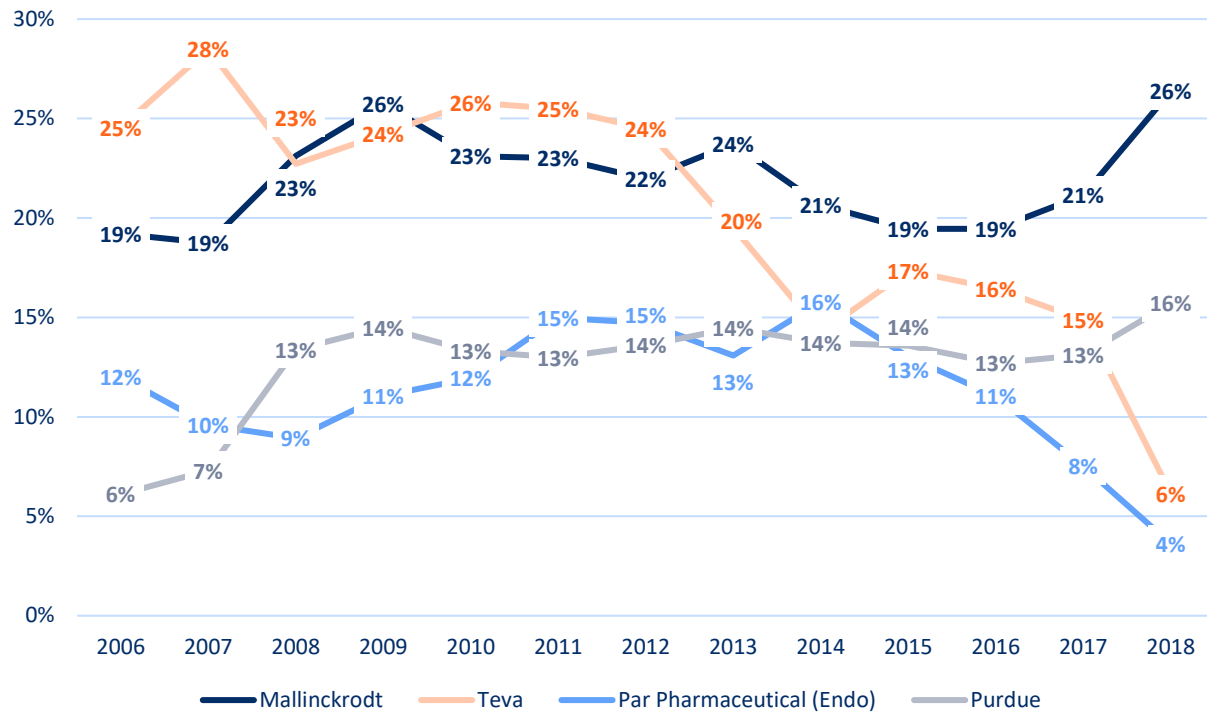
²¹ Market share calculated as MNK shipments divided by total industry shipments.

Figure 4: Mallinckrodt's U.S. Market Share from 2006 to 2018²²

23. From 2006 to 2018, Mallinckrodt's market share was among the highest in the industry.

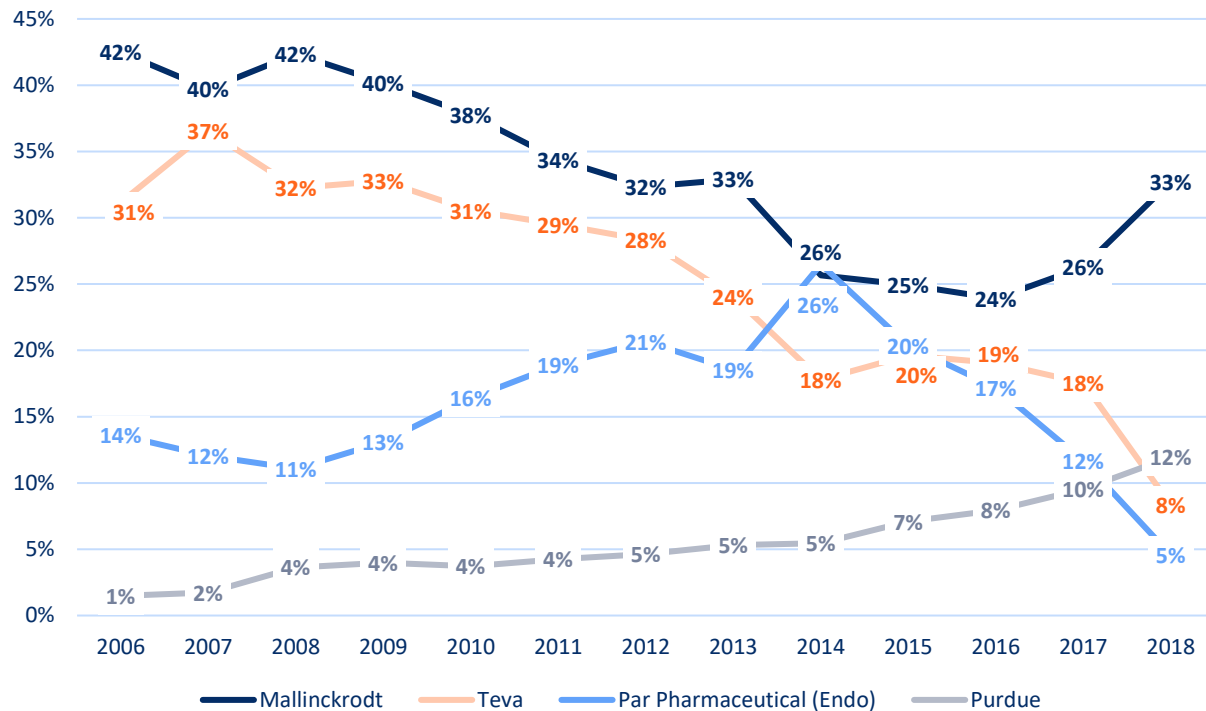
Figure 5 below compares Mallinckrodt's market share, based on MMEs shipped, to other large opioid manufacturers, from 2006 to 2018.

²² ARCOS data.

Figure 5: Mallinckrodt's U.S. Market Share (MME) from 2006 to 2018²³

24. Figure 6 compares Mallinckrodt's market share, based on dosages shipped, to other large opioid manufacturers, from 2006 to 2018.

²³ ARCOS data.

Figure 6: Mallinckrodt's Market Share (Dosage) from 2006 to 2018²⁴

IV. Mallinckrodt's Share Repurchase Program

25. Mallinckrodt's Board of Directors ("Board") authorized the repurchase of shares on four separate occasions. On January 22, 2015, the Board authorized the implementation of a \$300 million share repurchase program.²⁵ During a board meeting held on November 18 – November 19, 2015, the Board authorized a new \$500 million share repurchase program.²⁶ During a board meeting held on March 16 – March 17, 2016, the Board authorized a \$1

²⁴ ARCOS data.

²⁵ Mallinckrodt plc, Meeting of the Board of Directors, January 22, 2015, p. 5. (MNK-OP-Trust_04706932 at – 936).

²⁶ Mallinckrodt plc, Meeting of the Board of Directors, November 18 – 19, 2015, pp. 5-6. (MNK_OCC&UCC_00340567 at – 571-572).

billion share repurchase program.²⁷ Finally, during a board meeting on March 1 – March 2, 2017, the Board authorized an additional share repurchase program for another \$1 billion.²⁸

26. Mallinckrodt’s share repurchases in relation to the Share Repurchase Program began on August 4, 2015 and ended on April 23, 2018. In total, Mallinckrodt repurchased approximately 35.6 million shares for a total purchase price of \$1.587 billion (“Share Repurchases”). Table 1 below summarizes Mallinckrodt’s Share Repurchases by quarter.

Table 1: Mallinckrodt’s Share Repurchases by Quarter²⁹

Time Period	Shares	Purchase Price	Cost	Commission	Total Cost & Commissions	Annual Amount	All-in Price
Q4 2015	823,592	\$ 91.11	\$ 75,034,780	\$ 16,472	\$ 75,051,251	\$ 75,051,251	\$ 91.13
Q1 2016	3,903,376	70.39	274,751,967	78,068	274,830,034		70.41
Q2 2016	3,423,680	65.77	225,181,272	68,474	225,249,746		65.79
Q3 2016	1,703,381	58.88	100,297,302	34,068	100,331,370		58.90
Q4 2016	679,666	74.21	50,434,626	13,593	50,448,220		74.23
Q5 2016 (1)	2,565,013	61.79	158,488,513	51,300	158,539,813	809,399,183	61.81
Q1 2017	5,587,314	49.31	275,511,396	111,746	275,623,142		49.33
Q2 2017	2,374,130	42.39	100,640,943	47,483	100,688,425		42.41
Q3 2017	1,517,019	37.36	56,674,526	30,340	56,704,866		37.38
Q4 2017	9,378,726	22.78	213,646,685	187,575	213,834,260	646,850,693	22.80
Q1 2018	2,880,527	15.68	45,179,019	57,611	45,236,630		15.70
Q2 2018	730,441	13.69	10,000,004	14,609	10,014,612	55,251,242	13.71
Total	35,566,865	\$ 44.59	\$ 1,585,841,033	\$ 711,337	\$ 1,586,552,371	\$ 1,586,552,371	\$ 44.61

(1) Represents Q4 of the calendar year. In 2016, MNK changed its fiscal year end from September to December.

V. U.S. GAAP Treatment of Contingent Liabilities

27. The framework for the treatment of a contingent liability, according to U.S. GAAP, is described in the Financial Accounting Standards Board (“FASB”) Accounting Standards

²⁷ Mallinckrodt plc, Meeting of the Board of Directors, March 16 – 17, 2016, pp. 3-4. (MNK_OCC&UCC_00305710 at 712-713).

²⁸ Mallinckrodt plc, Meeting of the Board of Directors, March 1 – 2, 2017, p. 1. (MNK-OP-Trust_04625828). Throughout this Affidavit, I refer to the four separate approvals of share repurchases as the “Share Repurchase Program.”

²⁹ 16.239.9 Share Repurchases Summary Vshare.xlsx. Purchase Price and All-in Price represent Cost per Share and Total Cost & Commissions per Share, respectively.

Codification (“ASC”) 450-20 “Loss Contingencies.” Specifically, ASC 450-20 defines a contingency as:

“An existing condition, situation, or set of circumstances involving **uncertainty as to possible gain** (gain contingency) **or loss** (loss contingency) to an entity that **will ultimately be resolved when one or more future events occur or fail to occur.**”³⁰

28. According to FASB, there are three categories a contingent liability can fall into:

“**probable**”, “**reasonably possible**”, and “**remote**.”³¹ These are defined as the following:

- (a) “**Probable**” The future event or events are likely to occur.
- (b) “**Reasonably Possible**” The chance of the future event or events occurring is more than remote but less than likely.
- (c) “**Remote**” The chance of the future event or events occurring is slight.³²

29. These standards provide a framework for assessing the likelihood of a contingency. FASB also presents “examples of loss contingencies” which include, but are not limited to, “[p]ending or threatened litigation” and “[a]ctual or possible claims and assessments.”³³

30. If the likelihood of material loss is remote, the company does not have to record an accrual. If the likelihood of material loss is reasonably possible the company also does not have to record an accrual. If the likelihood of material loss is probable and the loss is reasonably estimable, the company is required to record an accrual. Specifically, an entity is required to recognize a liability and take a charge to income for a contingent loss if the following two conditions are met:

- (a) “Information available before the financial statements are issued or are available to be issued... indicates that **it is probable that an asset had been impaired or a liability had been incurred** at the date of the

³⁰ ASC 450-20.

³¹ ASC 450-20. (Emphasis added).

³² ASC 450-20. (Emphasis added).

³³ ASC 450-20-05-10.

financial statements...³⁴ It is implicit in this condition that **it must be probable that one or more future events will occur confirming the fact of the loss.**

(b) The amount of **loss can be reasonably estimated.**³⁵

31. Put simply, according to U.S. GAAP, a company is required to accrue a loss for a contingent liability if, based on information available at the time, it is probable that a liability will be incurred and the amount of that liability is reasonably estimable. It is important to note that often the estimated loss related to a contingent liability is calculated as a range. According to industry standards, if there is no better estimate within a range, the minimum amount within the range should be accrued. For example, consider the following:

“If some amount within a range of loss appears at the time to be a better estimate than any other amount within the range, that amount shall be accrued. When no amount within the range is a better estimate than any other amount, however, the minimum amount in the range shall be accrued. Even though the minimum amount in the range is not necessarily the amount of loss that will be ultimately determined, it is not likely that the ultimate loss will be less than the minimum amount.”³⁶

32. Similarly, because Mallinckrodt is incorporated in Ireland, I reviewed Irish GAAP standards relating to contingent liabilities and observed that the requirement for accruing a contingent liability has a lower standard for *probability* under Irish standards than U.S. GAAP.³⁷ For example, consider the following:

“An entity shall recognise a provision only when:

- (a) the entity has an obligation at the reporting date as a result of a past event;
- (b) it is probable (ie [sic] more likely than not) that the entity will be

³⁴ “Date of the financial statements means the end of the most recent accounting period for which financial statements are being presented.” ASC 450-20-25-2.

³⁵ ASC 450-20-25-2. (Emphasis added).

³⁶ ASC 450-20-30-1. (Emphasis added).

³⁷ I have reviewed the declaration of Damien Malone where he opines on the treatment of liabilities of uncertain timing or amount under Irish GAAP and FRS 102. My review of FRS 102 is consistent with his declaration. Declaration of Damien Malone, January 15, 2024.

required to transfer economic benefits in settlement; and
(c) the amount of the obligation can be estimated reliably.”³⁸

33. As noted above, this standard is similar to the U.S. GAAP treatment of contingent liabilities, and because it has a lower standard of probability for accrual ("more likely than not" compared to "likely") I have relied on the more stringent U.S. GAAP treatment of contingent liabilities. Additionally, Mallinckrodt relied on U.S. GAAP in preparing its financial statements.³⁹
34. I apply this framework to determine whether Mallinckrodt should have accrued a liability relating to its potential material loss from opioid liability, by analyzing whether or not the liability was probable and then analyzing whether or not the liability was reasonably estimable, at the time of the Share Repurchases.
35. I analyzed and considered the information that was known or knowable at the time of the Share Repurchases to determine whether Mallinckrodt's opioid liabilities were probable. By reviewing this information, I am able to determine whether, given the information available at the time, Mallinckrodt's opioid liability was probable and the Company should have accrued a liability. I reviewed published studies on the opioid crisis and other publicly available information to determine whether Mallinckrodt's opioid liability could reasonably have been estimated as of the time of the Share Repurchases.

³⁸ Financial Reporting Control, January 2022, FRS 102, The Financial Reporting Standard applicable in the UK and Republic of Ireland, Section 21.4, p. 186.

³⁹ Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015, p. 64. "The consolidated and combined financial statements have been prepared in U.S. dollars and in accordance with accounting principles generally accepted in the U.S." ("GAAP").

VI. Mallinckrodt's Opioid Liabilities Were Probable at the Time of the Share Repurchases

36. As mentioned above, according to U.S. GAAP, companies are required to accrue contingent liabilities if it is probable that a liability has been incurred and the amount of that liability is reasonably estimable. An event is considered “probable” if the “future event or events are likely to occur.”⁴⁰ Based on evidence available prior to and throughout the period of the Share Repurchases, it is my opinion that Mallinckrodt's opioid liabilities were probable.
37. At the time of the Share Repurchases, there was substantial evidence that Mallinckrodt's opioid liabilities were probable. This includes, but is not limited to the fact that: the opioid crisis was considered an epidemic, hundreds of thousands of people were dying from prescription opioid abuse; litigation existed against other opioid industry participants (including but not limited to Purdue Pharma,⁴¹ McKesson Corporation,⁴² and Cardinal Health⁴³); and investigations by government agencies into Mallinckrodt's misconduct occurred prior to the Share Repurchases (including but not limited to issues related to Mallinckrodt's monitoring requirements). Additionally, in reaching conclusions, I reviewed allegations in the amended complaint as well as documents cited there by reference. Based on all of this evidence at the time of the Share Repurchases, it is my opinion that Mallinckrodt's contingent opioid liabilities were probable.

⁴⁰ ASC 450-20-20.

⁴¹ “The Purdue Frederick Company, Inc. and Top Executives Plead Guilty To Misbranding OxyContin; Will Pay Over \$600 Million,” The United States Attorney's Office Western District of Virginia, May 10, 2007.

⁴² Settlement and Release Agreement and Administrative Memorandum of Agreement, The United States Department of Justice Drug Enforcement Administration, May 2, 2008.

⁴³ “Cardinal Health Inc., Agrees to Pay \$34 Million to Settle Claims That It Failed To Report Suspicious Sales of Widely-Abused Controlled Substances,” The United States Attorney's Office, Colorado, October 2, 2008.

i. *At the Time of the Share Repurchases the Opioid Crisis Was Declared an Epidemic and Opioid Related Deaths Were Rising*

38. At the time of the Share Repurchases, the opioid crisis had been declared an epidemic by the U.S. Government. In 2011, the Executive Office of the President of the United States along with the DEA and other government agencies released an action plan titled, “Epidemic: Responding To America’s Prescription Drug Abuse Crisis,” which is an “action plan [that] primarily focuses on the growing and often deadly problem of prescription opioid abuse.”⁴⁴ Upon releasing the plan, the White House director of national drug control policy stated, “[t]he toll our nation’s prescription drug abuse epidemic has taken in communities nationwide is devastating.”⁴⁵ Moreover, there was extensive coverage of the opioid epidemic and its devastating consequences in the news.⁴⁶ For example, as early as 2003, New York Times reporter Barry Meier published *Pain Killer: A “Wonder” Drug’s Trail of Addiction and Death*, a book detailing “prescription drug abuse and how the misuse of science by the drug industry threatens the public good.”⁴⁷ This book contained reporting on the abuse of OxyContin from Mr. Meier that had previously been published in the New York Times. The New York Times had additional extensive news coverage of opioid abuse prior to the Share Repurchases.⁴⁸ Additionally, it was observed that, from 1997 - 2002

⁴⁴ “Epidemic: Responding To America’s Prescription Drug Abuse Crisis,” Executive Office of the President of the United States, 2011, p. 1.

⁴⁵ Young, Sandra, “White House launches effort to combat soaring prescription drug abuse,” CNN, April 19, 2011.

⁴⁶ For example, see: “DEA Launches First Rx Drug ‘Take-Back’ Day,” CBS News New York, September 24, 2010. See also, “FDA’s Efforts to Address the Misuse and Abuse of Opioids,” FDA, February 6, 2013.

⁴⁷ Meier, Barry. *Pain Killer: A “Wonder” Drug’s Trail of Addiction and Death*. Rodale Books, 2003.

⁴⁸ Including, but not limited to, Rosenberg, Tina, “When Is a Pain Doctor a Drug Pusher?” New York Times Sunday Magazine, June 17, 2007; Cave, Damien, “Legal Drugs Kill Far More Than Illegal, Florida Says,” New York Times, June 14, 2008; Singer, Natasha, “Taking the Fun Out of Popping Pain Pills,” New York Times, September 19, 2009.

"there was a... 402% increase... in oxycodone prescribing" and "hospital emergency department mentions" of oxycodone increased by 346%.⁴⁹

39. Furthermore, during the time prior to the Share Repurchases, the number of opioid-related deaths was dramatically increasing year over year. According to the Centers for Disease Control and Prevention, the National Center for Health Statistics, the annual number of opioid overdose deaths increased from 8,050 in 1999 to 28,647 by 2014. This number increased further to 33,091 in 2015, 42,249 in 2016, 47,600 in 2017 and 46,802 in 2018.⁵⁰ These figures were widely circulated in the media, and it is reasonable to assume that they were well known in the opioid industry. In addition to the number of deaths as a result of the opioid epidemic, several studies were published prior to the Share Repurchases which quantified the economic cost of the crisis.⁵¹
40. In addition to the public information on the opioid epidemic, there was evidence that Mallinckrodt employees discussed the worsening crisis prior to the Share Repurchases. For example, a 2010 e-mail from Mallinckrodt's Vice President of Medical Affairs referenced an article titled "Opioid Painkiller Overload" that stated "fatal poisonings involving these medications [opioids] more than tripled from 1999 through 2006 – from 4,000 to more than 13,500."⁵²

⁴⁹ Van Zee, Art, "The Promotion and Marketing of OxyContin: Commercial Triumph, Public Health Tragedy," American Journal of Public Health, May 9, 2008.

⁵⁰ Centers for Disease Control and Prevention, National Center for Health Statistics.

⁵¹ For example, see Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse in the United States," Pain Medicine, April 2011. and Ryan H. Hansen et al., "Economic Costs of Nonmedical Use of Prescription Opioids," Clinical Journal of Pain March/April 2011.

⁵² See e-mail from Art Morelli to Kevin Holman, January 12, 2010 (MNK-T1_0007200387).

41. As discussed previously, at the time of the Share Repurchases, Mallinckrodt had a substantial share of the opioid market, and in fact, was the largest manufacturer of opioids in the United States. Given the worsening opioid epidemic, the increase in opioid overdoses, the increase in public attention to the crisis, and the fact that Mallinckrodt was the largest manufacturer of opioids, it was likely that Mallinckrodt would face liability for its role in the crisis. Thus, at the time of the Share Repurchases, Mallinckrodt's opioid liability was probable.

ii. *Opioid-Related Litigation and Investigations Existed Prior to and at the Time of the Share Repurchases*

42. Prior to and at the time of the Share Repurchases, opioid-related litigation against opioid manufacturers, distributors, and other industry participants existed. This included, but was not limited to, investigations being conducted by the DEA into actions taken by opioid industry participants. As opioid companies were facing investigations and litigations related to opioid sales, it was probable, at the time of the Share Repurchases, that Mallinckrodt itself was going to face litigation related to its opioid sales and that it would be a target of government agencies in future years. The opioid-related litigations and investigations that occurred prior to the Share Repurchases included, but were not limited to:

- a) In 2007, The Purdue Frederick Company pled guilty to misconduct charges related to the sale of opioids, and agreed to pay approximately \$634.5 million to the U.S. Attorney's Office Western District of Virginia ("Purdue Plea").⁵³

⁵³ "The Purdue Frederick Company, Inc. and Top Executives Plead Guilty To Misbranding OxyContin; Will Pay Over \$600 Million," The United States Attorney's Office Western District of Virginia, May 10, 2007.

- b) In 2008, the DEA pursued action against McKesson Corporation (“McKesson”), a major opioid distributor, that temporarily suspended McKesson’s authority to distribute controlled substances such as hydrocodone at certain facilities.⁵⁴
- c) In 2008, Cardinal Health settled with seven U.S. Attorney’s Offices related to Cardinal Health’s alleged violations of federal reporting provisions for controlled substances (including opioids), in which Cardinal Health agreed to pay \$34 million.⁵⁵
- d) In June 2010, Harvard Drugs, one of Mallinckrodt’s major Florida customers, had its license suspended by the DEA due to the illicit sale of opioids.⁵⁶
- e) In June 2014, a major lawsuit was filed by the City of Chicago against “five of the nation’s largest opioid manufacturers” (Purdue, Cephalon, Inc., Janssen Pharmaceuticals, Inc., Endo Health Solutions Inc. and Actavis plc) for causing a “dramatic rise in drug addiction, overdose and diversion in communities across the nation” due to the company’s deceptive practices.”⁵⁷

⁵⁴ Settlement and Release Agreement and Administrative Memorandum of Agreement, The United States Department of Justice Drug Enforcement Administration, May 2, 2008.

⁵⁵ “Cardinal Health Inc., Agrees to Pay \$34 Million to Settle Claims That It Failed To Report Suspicious Sales of Widely-Abused Controlled Substances,” The United States Attorney’s Office, Colorado, October 2, 2008. See also, “Mallinckrodt Controlled Substance Suspicious Order Monitoring System Program,” API Sales & Marketing Meeting, Covidien, September 30, 2009, p. 10. (MNK-T1_0005876624).

⁵⁶ E-mail from Kate Muhlenkamp to Dave Irwin, et al., June 18, 2010 (MNK-T1_0000561028). Notably, Mallinckrodt’s compliance systems failed to detect and prevent any of Harvard Drugs’ orders. For example, see e-mail from Karen Harper to Tom Berry, July 21, 2010, (MNK-T1_0000473647 at – 473648). “Based upon the parameters established within our Suspicious Order Monitoring System, Harvard [Drugs] had not met or exceeded the excessive quantity calculation for Oxycodone sales.”

⁵⁷ “City of Chicago Sues Big Pharma for Deceptively Marketing Highly Addictive Prescription Painkillers,” Office of the Mayor, June 3, 2014. Notably, on October 21, 2019, Mallinckrodt was named in this lawsuit. City of Chicago v. Purdue Pharma L.P. et al. (<https://dockets.justia.com/docket/illinois/ilndce/1:2014cv04361/297040>). See also, “Attorney General Raoul Takes Action Against Opioid Manufacturer,” Illinois Attorney General, October 22, 2019.

f) Prior to the final Share Repurchase on April 23, 2018, an additional 746 opioid lawsuits were filed against Mallinckrodt.⁵⁸

43. Based on the above, as of the time of the Share Repurchases, there was ample evidence that the DEA (and other government organizations) were investigating and pursuing litigation against major opioid industry participants. As Mallinckrodt was the largest producer of opioids at that time, it was probable that those same government agencies would pursue claims against Mallinckrodt for its misconduct related to the manufacturing and sale of opioids. This sentiment was discussed in an April 2011 Mallinckrodt internal report that noted the “DEA is working their way back up the supply chain as part of their investigations.”⁵⁹ The numerous investigations by government agencies into opioid companies, and Mallinckrodt’s large market share, provide further evidence that at the time of the Share Repurchases Mallinckrodt was likely to be investigated as well, and thus, its opioid liabilities were probable.

iii. Mallinckrodt Faced DEA and Other Investigations Prior to the Share Repurchases

44. On November 30, 2011 and October 22, 2012, Mallinckrodt received subpoenas from the DEA regarding documents related to the company’s suspicious order monitoring system.⁶⁰ This investigation encompassed the large amounts of oxycodone Mallinckrodt shipped to Florida.⁶¹ [REDACTED]

⁵⁸ Active_65403166_36_MNK Opioid Litigation Tracker.xlsx.

⁵⁹ Cegedim Relationship Management Webinar, DEA Controlled Substances Act – Strategies for an Effective Compliance Program, p. 3. (MNKTRUST_0000201705 at – 1707).

⁶⁰ See e-mail from Gigi Royse to Kathy Schaefer, December 5, 2012 (MNK-OP-Trust_03007223).

⁶¹ For example, see Mallinckrodt Pharmaceuticals, “DEA Update,” July 19, 2013 (MNK_OCC&UCC_02052435 at – 2438).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁶²

45. In addition to the DEA's investigation in 2011, the following was known as of the time of the Share Repurchases:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁶² [REDACTED] (MNK-T1_0000391545 at – 391546).

⁶³ [REDACTED]

⁶⁴ [REDACTED] (MNK_OCC&UCC_02052435 at – 2436) (Emphasis added).

[REDACTED]

[REDACTED]⁶⁵

- c) In 2013, the Company also received a subpoena by the City of Chicago⁶⁶ for information regarding Mallinckrodt's opioid misconduct.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁶⁸

46. These allegations and potential investigations into Mallinckrodt all existed prior to the Share Repurchases. Thus, this provides further evidence that Mallinckrodt's opioid liabilities were probable.

VII. Mallinckrodt's Opioid Liabilities Were Reasonably Estimable

47. As discussed above, Mallinckrodt's opioid liabilities were probable at the time of the Share Repurchases. According to U.S. GAAP, if Mallinckrodt's likelihood of loss was probable and that loss was reasonably estimable, Mallinckrodt was required to record an accrual and

⁶⁵ [REDACTED] (MNK_OCC&UCC_02052435 at – 2439, – 2437).

⁶⁶ *City of Chicago v. Purdue Pharma L.P.*, No. 2014-04361 (N.D. Ill. Sept. 3, 2021) Dkt. No. 1130-4.

⁶⁷ [REDACTED] (MNK_OCC&UCC_02535877 at – 2535877, – 2535878).

⁶⁸ [REDACTED] (MNK_OCC&UCC_02535877 at – 2535877, – 2535878).

reduce its income (and consequently its profits available for distribution). It is my opinion that as of the time of the Share Repurchases, Mallinckrodt's opioid liabilities were reasonably estimable.

48. To estimate Mallinckrodt's opioid liabilities at the time of the Share Repurchases, I reviewed and analyzed numerous studies that quantified the societal cost of the opioid crisis in the United States. Next, using shipment data from the ARCOS database, I apportioned the societal cost calculated in the Opioid Studies to Mallinckrodt's shipments during the relevant time period.

A. Societal Cost of Opioid Epidemic

49. I identified 10 distinct studies that quantified the societal costs of the opioid crisis for various time periods from 2001 to 2018 (the "Opioid Studies"). Details of the Opioid Studies are summarized in Exhibit 3. Generally, the Opioid Studies analyzed the costs associated with the abuse of prescription and illicit opioids for a given time period. Often, the total economic cost of the opioid crisis was grouped into different categories that included but were not limited to lost productivity (fatal and nonfatal), healthcare costs, criminal justice costs, education costs, and child and family assistance costs. These published studies are calculations of societal cost based on historical opioid deaths, and costs incurred associated with categories such as abuse prevention education, increased healthcare costs due to opioid abuse and misuse, among others. Additionally, these studies are relevant because the plaintiffs and claimants against manufacturers such as Mallinckrodt are the people who bore these costs due to opioid related deaths and other increased costs. Typically, the Opioid Studies estimated the societal cost in a specific year. In this section, I begin by describing the scope and conclusions of each of the Opioid Studies in terms of

societal cost. I then adjust these conclusions by one-third, to apportion costs equally across the distribution chain (assuming manufacturers, distributors, and retailers are each responsible for one-third of the cost.)⁶⁹ Using shipment data from the ARCOS database, I calculate a societal cost attributable to manufacturers per MME and per dosage. In the next sections, I apply Mallinckrodt's shipment data to the societal cost per MME and per dosage based on the studies to estimate Mallinckrodt's opioid liability at the time of the Share Repurchases. Additionally, as I have been advised by counsel that Mallinckrodt may be jointly and severally liable for all damages related to the opioid crisis attributable to manufacturers, I also applied industry shipment data to the societal cost per MME and per dosage to calculate industry-wide liability at the time of the Share Repurchases.

50. In my opinion, Mallinckrodt could have and should have reviewed and analyzed these or similar studies or the relevant data and information therein to assess and estimate its opioid liability at the time of the Share Repurchases.

i. Overview of the Opioid Studies

Birnbaum 2006

51. In 2006, Howard Birnbaum et al., published a study titled "Estimated Costs of Prescription Opioid Analgesic Abuse in the United States in 2001: A Societal Perspective," which estimated the societal cost of prescription opioid analgesic abuse in 2001 alone to be \$8.6 billion ("Birnbaum 2006").⁷⁰ Of the \$8.6 billion in societal costs, \$2.6 billion was attributed

⁶⁹ See *In re Nat'l Prescription Opiate Litig.*, 622 F. Supp. 3d 584, 592 (N.D. Ohio 2022) ("The Court ... concludes it is equitable and fair to allocate one-third (33%) of the recoverable abatement costs to the Pharmacy Defendants for the harm caused by improper dispensing conduct in the Counties. This allocation takes into account the fact that conduct of all three categories of actors along the pharmaceutical supply chain – that is, manufacturers, distributors, and dispensers of prescription opioids contributed to the nuisance in this case").

⁷⁰ Howard G. Birnbaum et al., "Estimated Costs of Prescription Opioid Analgesic Abuse in the United States in 2001: A Societal Perspective," *Clinical Journal of Pain*, October 2006.

to healthcare costs, \$1.4 billion to criminal justice costs and \$4.6 billion attributed to workplace costs.⁷¹ Conservatively attributing one-third of this cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of prescription opioid abuse of approximately \$2.9 billion in 2001.

Birnbaum 2011

52. In 2011, Birnbaum et al., published another study on the societal cost of prescription opioid abuse titled “Societal Costs of Prescription Opioid Abuse, Dependence, and Misuse in the United States” (“Birnbaum 2011”).⁷² Similar to the Birnbaum 2006 study, the Birnbaum 2011 study focused on the abuse of prescription opioids only and estimated the total cost of prescription opioid abuse to be \$55.7 billion in 2007 alone. Of the \$55.7 billion in societal costs, \$25.0 billion was attributed to healthcare costs, \$5.1 billion was attributed to criminal justice costs, and \$25.6 billion was due to workplace costs.⁷³ Conservatively attributing one-third of the total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of \$18.6 billion in 2007. On a per MME and dosage shipped basis, the Birnbaum 2011 study estimated the societal cost of prescription opioid abuse attributable to manufacturers to be approximately \$0.11 per MME shipped and \$1.51 per dosage shipped in 2007.⁷⁴

⁷¹ As the ARCOS database only includes information from 2006 onwards, I am unable to calculate the societal cost per MME shipped or per dosage shipped.

⁷² Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse in the United States," *Pain Medicine*, April 2011.

⁷³ Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse in the United States," *Pain Medicine*, April 2011.

⁷⁴ According to ARCOS data, published by the DEA, in 2007, 173.6 billion MMEs and 12.3 billion dosages of opioids were shipped in the U.S.

Hansen 2011

53. In 2011, a study by Ryan N. Hansen et al., titled “Economic Costs of Nonmedical Use of Prescription Opioids” estimated the cost of the opioid crisis in 2006 to be \$53.4 billion (“Hansen 2011”).⁷⁵ This amount was comprised of \$42.0 billion attributed to lost productivity, \$8.2 billion to criminal justice cost, \$2.2 billion to drug abuse cost, and \$944 million in costs associated with medical complications (including neonatal care).⁷⁶ Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of \$17.8 billion. On a per MME and dosage shipped basis, the Hansen 2011 study estimated the societal cost of prescription opioid abuse attributable to manufacturers to be approximately \$0.11 per MME shipped and \$1.61 per dosage shipped in 2006.⁷⁷

Florence 2016

54. In 2016, Curtis Florence, PhD et al., published a research paper titled “The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013” (“Florence 2016”).⁷⁸ Similar to the Birnbaum studies, the Florence 2016 study only focused on the abuse of prescription opioids. Specifically, the study estimated the total cost of the opioid crisis in 2013 alone to be \$78.5 billion. This amount was comprised of “Non-Fatal” costs of \$26.1 billion in healthcare, \$20.4 billion in lost productivity, \$7.7 billion in criminal justice and \$2.8 billion in drug abuse treatment; and \$21.5 billion of “Fatal Costs”

⁷⁵ Ryan H. Hansen et al., “Economic Costs of Nonmedical Use of Prescription Opioids,” *Clinical Journal of Pain* March/April 2011.

⁷⁶ Ryan H. Hansen et al., “Economic Costs of Nonmedical Use of Prescription Opioids,” *Clinical Journal of Pain* March/April 2011.

⁷⁷ According to ARCOS data, in 2006, 156.1 billion MMEs and 11.0 billion dosages of opioids were shipped in the U.S.

⁷⁸ Curtis Florence, et al., “The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013,” *Medical Care*, October 2016, p. 1.

of lost productivity and healthcare.⁷⁹ Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of \$26.2 billion in 2013. On a per MME and dosage shipped basis, the Florence 2016 study estimated the societal cost of prescription opioid abuse attributable to manufacturers to be approximately \$0.12 per MME shipped and \$1.73 per dosage shipped in 2013.⁸⁰

Florence 2021

55. Florence et al., published another study in 2021 that quantified the cost of the opioid epidemic in 2017 which was titled “The Economic Burden of Opioid Use Disorder and Fatal Opioid Overdose in the United States, 2017” (“Florence 2021”). The Florence 2021 study determined that the total societal cost of prescription and illicit opioid abuse was \$1.02 trillion in 2017 alone.⁸¹ Florence’s estimate for 2017 was nearly twelve times larger than its estimate for 2013 for two reasons: 1) the Florence 2021 study included the societal costs associated with both prescription and illicit opioid abuse and 2) the Florence 2021 study utilized a different methodology to determine the value of a statistical life to estimate the value of loss of life from a fatal overdose.⁸² Of the \$1.02 trillion in societal costs, \$549.7 billion was attributed to fatal costs (lost productivity, healthcare costs, and the value of statistical life lost) and \$471.0 billion was attributed to nonfatal costs. Of the \$471.0 billion in nonfatal costs, \$34.8 billion was assigned to healthcare costs (which includes costs associated with opioid use disorder treatment), \$14.8 billion was attributed to criminal

⁷⁹ Curtis Florence, et al., “The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013,” *Medical Care*, October 2016, pp. 13 – 14.

⁸⁰ According to ARCOS data, in 2013, 211.8 billion MMEs and 15.1 billion dosages of opioids were shipped in the U.S.

⁸¹ Curtis Florence, et al., “The economic burden of opioid use disorder and fatal opioid overdose in the United States, 2017,” *Drug and Alcohol Dependence*, October 27, 2020.

⁸² Certain studies relied on the “value of a statistical life” methodology, which led to higher estimates of societal cost. Throughout this report, I refer to this methodology as “value of a statistical life” or “VSL.”

justice spending, \$31.3 billion was assigned to lost productivity, and \$390 billion was due to the value of reduced quality of life. Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost for abuse of prescription and illicit opioids of \$340 billion in 2017. On a per MME and dosage shipped basis, the Florence 2021 study estimated the societal cost of prescription and illicit opioid abuse to be approximately \$2.08 per MME shipped and \$28.97 per dosage shipped in 2017.⁸³

Altarum

56. Altarum, a nonprofit organization that works with federal and state health agencies to improve health outcomes of Medicare and Medicaid beneficiaries, has published several studies estimating the societal cost of the opioid crisis in specific years, over time. Specifically, Altarum calculated the cost of the opioid epidemic to be \$29.1 billion in 2001, \$48.7 billion in 2006, \$60.9 billion in 2011, \$95.8 billion in 2016, and projected a societal cost of the epidemic to be \$115.0 billion in 2017.⁸⁴ Overall, from 2001 to 2017, Altarum estimated the economic toll of the opioid epidemic to be more than \$1 trillion. These estimates include the cost of productivity, healthcare, criminal justice, education, and child and family assistance due to abuse and misuse of prescription and illicit opioids.⁸⁵ Conservatively, I attributed one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt. On a per MME shipped basis, Altarum estimated the societal cost of both prescription and illicit opioid abuse attributable to manufacturers to be \$0.10 per MME,

⁸³ According to ARCOS data, in 2017, 163.1 billion MMEs and 11.7 billion dosages of opioids were shipped in the U.S.

⁸⁴ “Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001,” Altarum, February 13, 2018. Note: All cost estimates are in 2016 dollars.

⁸⁵ The Altarum studies do provide a breakdown of the societal cost of illicit and prescription opioid abuse.

\$0.09 per MME, and \$0.17 per MME in 2006, 2011, and 2016, respectively. On a per dosage shipped basis, Altarum estimated the societal cost of both prescription and illicit opioid abuse attributable to manufacturers to be \$1.47 per dosage, \$1.27 per dosage, and \$2.44 per dosage in 2006, 2011, and 2016, respectively.⁸⁶ Following 2017, Altarum projected the cumulative cost of opioid misuse, substance use disorders and premature mortality to exceed \$500 billion from 2017 to 2020.

CEA 2017

57. In November 2017, the Council of Economic Advisors (“CEA”) estimated the economic cost of the opioid crisis to be \$504.0 billion in 2015 alone (“CEA 2017”).⁸⁷ Of the \$504.0 billion, \$431.7 billion was attributed to the fatality costs of the opioid epidemic and \$72.3 billion was attributed to nonfatal costs. This study included the costs related to both illicit and prescription opioid abuse. I estimated that, based on the CEA 2017 study, the societal cost attributable to prescription opioid abuse was \$261.5 billion in 2015.⁸⁸ Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost for abuse of prescription opioids of \$87.3 billion in 2015. On a per MME and dosage shipped basis, the CEA 2017 study estimated the societal cost of the

⁸⁶ According to ARCOS data, in 2006, 156.1 billion MMEs and 11.0 billion dosages of opioids were shipped in the U.S.; in 2011, 227.5 billion MMEs and 15.9 billion dosages of opioids were shipped in the U.S.; in 2016, 187.6 billion MMEs and 13.1 billion dosages of opioids were shipped in the U.S.

⁸⁷ “The Underestimated Cost of the Opioid Crisis,” The Council of Economic Advisers, November 2017, p. 1.

⁸⁸ “Drug Overdose Death Rates,” National Institute on Drug Abuse. “Overdose_data_1999-2021 1.19.23.xlsx” this data is updated annually. The CEA 2017 study calculated “fatal costs” attributable to both prescription and illicit opioid abuse to be \$431.7 billion. This amount was, in part, calculated based on the number of opioid related deaths in 2015. Of the total opioid related deaths in 2015, 46.2% of them were related to prescription opioids. Therefore, I estimated the fatal costs associated with prescription opioid abuse to be \$199.4 billion (\$431.7 billion times 46.2%). The CEA 2017 study calculated non-fatal costs of \$72.3 billion, and noted that 14% of people included in this calculation had abuses related to heroin, while the “others either had a prescription opioid disorder or both.” Thus, I reduced the CEA 2017’s estimate of \$72.3 billion non-fatal costs by 14% to \$62.2 billion to reflect the amount attributable to prescription opioid abuse. In total, the societal cost attributable to prescription opioid abuse is estimated to be \$261.5 billion in 2015.

prescription opioid abuse attributable to opioid manufacturers to be approximately \$0.43 per MME shipped and \$6.26 per dosage shipped in 2015.⁸⁹ Note, similar to the Florence 2021 study, the CEA 2017 used the value of a statistical life methodology to estimate the value of a death related to opioid abuse.

MHA 2019

58. In April 2019, the Missouri Hospital Association (“MHA”) published a policy brief that estimated the cost of the opioid crisis in 2017 (“MHA 2019”). Utilizing the same method as the CEA, the MHA estimated the cost of the opioid crisis (both prescription and illicit abuse) to be \$684.6 billion in 2017, a 35.8% increase from the CEA’s estimate of \$504.0 billion in 2015.⁹⁰ The increase from 2015 to 2017 was primarily a result of an increase in opioid overdose deaths over the period. Of the \$684.6 billion estimated by the MHA, \$634.0 billion was attributed to opioid overdose fatalities and \$50.5 billion was attributed to non-fatal costs.⁹¹ Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of both prescription and illicit opioid abuse of \$228.2 billion. On a per MME and dosage shipped basis, the MHA 2019 study estimated the societal cost of prescription and illicit opioid abuse attributable to manufacturers to be approximately \$1.40 per MME shipped and \$19.43 per dosage shipped in 2017.⁹²

⁸⁹ According to ARCOS data, in 2015, 201.1 billion MMEs and 13.9 billion dosages of opioids were shipped in the U.S.

⁹⁰ Mat Reidhead and Shawn Billings, “The Economic Cost of the Opioid Crisis in the U.S.: A State-by-State Comparison,” Missouri Hospital Association, April 2019, p. 2.

⁹¹ Mat Reidhead and Shawn Billings, “The Economic Cost of the Opioid Crisis in the U.S.: A State-by-State Comparison,” Missouri Hospital Association, April 2019, p. 2.

⁹² According to ARCOS data, in 2017, 163.1 billion MMEs and 11.7 billion dosages of opioids were shipped in the U.S.

SOA 2019

59. In October 2019, a study by the Society of Actuaries titled “Economic Impact of Non-medical Opioid use in the United States” estimated the cost of the opioid crisis attributed to prescription and illicit opioid drugs to be \$631 billion from 2015 through 2018 (“SOA 2019”). Of the \$631 billion, \$204.6 billion was attributed to healthcare costs, \$253.3 billion to mortality costs, \$38.8 billion to criminal justice costs, \$33.4 billion to child and family assistance costs, \$5.2 billion to education costs, and \$95.7 billion to lost productivity costs.⁹³ Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of prescription and illicit opioid abuse of \$210.3 billion. On a per MME and dosage shipped basis, the SOA 2019 study estimated the societal cost of prescription and illicit opioid abuse attributable to manufacturers to be approximately \$0.31 per MME shipped and \$4.31 per dosage shipped from 2015 to 2018.⁹⁴

Murphy 2020

60. In 2020, a study by Sean M. Murphy titled “The Cost of Opioid Use Disorder and the Value of Aversion,” estimated the opioid related costs to society, including both prescription and illicit opioids, to be \$786.8 billion in 2018 alone (“Murphy 2020”).⁹⁵ Of the \$786.8 billion, \$89.1 billion was attributed to healthcare costs, \$64.6 billion was attributed to lost productivity, \$29.9 billion was attributed to criminal justice costs, and \$603.2 billion was

⁹³ Stoddard Davenport, Alexandra Weaver, and Matt Caverly, “Economic Impact of Non-Medical Opioid Use in the United States: Annual Estimates and Projections for 2015 through 2019,” Society of Actuaries, October 2019.

⁹⁴ According to ARCOS data, from 2015 – 2018, 686.0 billion MMEs and 48.7 billion dosages of opioids were shipped in the U.S.

⁹⁵ Sean M. Murphy, “The cost of opioid use disorder and the value of aversion,” Drug and Alcohol Dependence, October 2020.

attributed to premature mortality.⁹⁶ Conservatively attributing one-third of this total societal cost to opioid manufacturers, such as Mallinckrodt, implies a societal cost of prescription and illicit opioid abuse of \$262.3 billion. On a per MME and dosage shipped basis, the Murphy 2020 study estimated the societal cost of prescription and illicit opioid abuse to be approximately \$1.95 per MME shipped and \$26.25 per dosage shipped in 2018.⁹⁷

61. The details of the Opioid Studies are summarized in Exhibit 3. In some cases, different studies reached different estimates of the total societal costs for a given year that resulted from the opioid crisis. However, multiple studies reaching different estimates does not indicate that the cost is not reasonably estimable, but rather that it is estimable and that there is a range of acceptable conclusions. Indeed, it indicates that the ability to estimate Mallinckrodt's share of societal costs is not difficult or complex, as multiple different sources were able to perform their own calculations based on the data available.

ii. Societal Cost per MME and Dosage Shipped

62. To determine Mallinckrodt's opioid liabilities at the time of the Share Repurchases, I calculated the societal cost attributed to Mallinckrodt's cumulative opioid shipments as of December 31, 2014, December 31, 2015, December 31, 2016 and December 31, 2017 ("Estimate Dates"). Using the ARCOS data, I am able to calculate opioid shipment data on an annual basis and estimate Mallinckrodt's opioid liability at the time of its Share Repurchases, which were executed at numerous dates beginning on August 4, 2015 and ending on April 23, 2018.

⁹⁶ Sean M. Murphy, "The cost of opioid use disorder and the value of aversion," Drug and Alcohol Dependence, October 2020.

⁹⁷ According to ARCOS data, in 2018, 134.3 billion MMEs and 10.0 billion dosages of opioids were shipped in the U.S.

63. For each respective Estimate Date, I analyzed Opioid Studies that estimated the societal cost of prescription opioid abuse prior to that date. This allowed me to estimate Mallinckrodt's opioid liabilities with information that was known or knowable to the Board as of each Estimate Date and, therefore, as of each Share Repurchase.

iii. *Mallinckrodt's Opioid Liability as of December 31, 2014*

64. To calculate Mallinckrodt's opioid liability as of December 31, 2014, I reviewed studies that estimated the societal cost of the opioid crisis for a period prior to December 31, 2014. These studies are summarized in Table 2.

Table 2: Pre-2015 Opioid Studies Estimated Societal Cost⁹⁸

Study	Observation Year	Total Societal Cost		Total Opioid Shipments (Billions)		Manufacturers Cost (\$)	
		(\$ Billions)	(Manufacturers) (\$ Billions)	MME	Dosage	per Shipment MME	Dosage
Hansen 2011	2006	\$ 53.4	\$ 17.8	156.1	11.0	\$ 0.11	\$ 1.61
Altarum 2018†	2006	48.7	16.2	156.1	11.0	0.10	1.47
Birnbaum 2011	2007	55.7	18.6	173.6	12.3	0.11	1.51
Altarum 2018†	2011	60.9	20.3	227.5	15.9	0.09	1.27
Florence 2016	2013	78.5	26.2	211.8	15.1	0.12	1.73
Median						\$ 0.11	\$ 1.61
Median (Pre-12/31/14)						0.11	1.56

† For reference only. Cost per Shipment is excluded from the median calculation because this study included illicit drugs.

65. The table above shows the annual societal cost (in billions) determined by each study, the amount of the societal costs attributable to manufacturers only (one-third of total societal costs) and the total industry shipments (in MME, and dosage) for the relevant year. I calculate the societal cost per shipment attributable to manufacturers by dividing the societal cost (manufacturers) by the total annual industry shipments.

⁹⁸ "Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001," Altarum, February 13, 2018. Note: All cost estimates are in 2016 dollars. Curtis Florence, et al., "The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013," Medical Care, October 2016. Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse in the United States," Pain Medicine, April 2011. Ryan H. Hansen et al., "Economic Costs of Nonmedical Use of Prescription Opioids," Clinical Journal of Pain March/April 2011.

66. For studies that estimated the societal cost of prescription opioid abuse only and have an observation year prior to 2015, the median societal cost attributable to manufacturers per MME and dosage shipped was \$0.11 and \$1.61, respectively. From 2006 through 2014, Mallinckrodt's cumulative opioid MMEs shipped was 404.0 billion and its cumulative opioid dosage shipped was 45.9 billion.⁹⁹ Therefore, its estimated opioid liability as of December 31, 2014 was \$46.1 billion based on MME (\$0.11 cost per MME times 404.0 billion MME shipped) and \$74.0 billion based on dosage (\$1.61 cost per dosage times 45.9 billion dosage shipped) (see Exhibit 4-1A).
67. I was advised by counsel that Mallinckrodt may be jointly and severally liable for all damages related to the opioid crisis attributable to manufacturers. Thus, Mallinckrodt may have been liable for industry-wide damages of \$206.7 billion based on MME (\$0.11 cost per MME times 1,812.8 billion MMEs shipped nationwide) or \$205.4 billion based on dosage (\$1.61 cost per dosage times 127.3 billion dosages shipped nationwide) (see Exhibit 4-1B).
68. While all the studies summarized in the median calculations shown in Table 2 observed the societal cost of prescription opioid abuse in years prior to the Share Repurchases, I note that the Florence 2016 study was published after December 31, 2014. Removing this study from the median decreases the societal cost per MME shipped to \$0.11 (\$0.004 below the previous median) and the cost per dosage shipped to \$1.56. This results in estimated opioid liabilities for Mallinckrodt as of December 31, 2014 of \$44.6 billion based on MME (\$0.11 cost per MME times 404.0 billion MME shipped) and \$71.7 billion based on dosage (\$1.56 cost per dosage times 45.9 billion dosage shipped) (see Exhibit 4-2A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2014 is \$200.3 billion

⁹⁹ ARCOS data.

based on MME (\$0.11 cost per MME times 1,812.8 billion MMEs shipped nationwide), and \$199.0 billion based on dosage (\$1.56 cost per dosage times 127.3 billion dosages shipped nationwide) (see Exhibit 4-2B). Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

iv. *Mallinckrodt's Opioid Liability as of December 31, 2015*

69. To estimate Mallinckrodt's opioid liabilities as of December 31, 2015, I reviewed studies that observed data and estimated the societal cost of the opioid epidemic for years prior December 31, 2015. These studies are summarized in Table 3.

Table 3: Pre-2016 Opioid Studies Estimated Societal Cost¹⁰⁰

Study	Year	Total Societal Cost		Total Opioid Shipments (Billions)		Manufacturers Cost (\$)	
		Observation (\$ Billions)	Societal Cost (Manufacturers) (\$ Billions)	MME	Dosage	per Shipment MME	Dosage
Hansen 2011	2006	\$ 53.4	\$ 17.8	156.1	11.0	\$ 0.11	\$ 1.61
Altarum 2018†	2006	48.7	16.2	156.1	11.0	0.10	1.47
Birnbaum 2011	2007	55.7	18.6	173.6	12.3	0.11	1.51
Altarum 2018†	2011	60.9	20.3	227.5	15.9	0.09	1.27
Florence 2016	2013	78.5	26.2	211.8	15.1	0.12	1.73
CEA 2017*†	2015	261.5	87.2	201.1	13.9	0.43	6.26
Median						\$ 0.12	\$ 1.67
Median (Excl. VSL)						0.11	1.61
Median (Pre-12/31/15)						0.11	1.56

‡ For reference only. Cost per Shipment is excluded from the median calculation because this study included illicit drugs.

† Adjusted for removal of illicit opioid drugs.

* Used Value of a Statistical Life methodology.

70. For studies that estimated the societal cost of prescription opioid abuse only and have an observation year prior to December 31, 2015, the median societal cost attributable to

¹⁰⁰ "Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001," Altarum, February 13, 2018. Note: All cost estimates are in 2016 dollars. "The Underestimated Cost of the Opioid Crisis," The Council of Economic Advisers, November 2017. Curtis Florence, et al., "The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013," Medical Care, October 2016. Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse in the United States," Pain Medicine, April 2011. Ryan H. Hansen et al., "Economic Costs of Nonmedical Use of Prescription Opioids," Clinical Journal of Pain March/April 2011.

manufacturers per MME and dosage shipped was \$0.12 and \$1.67, respectively. From 2006 through 2015, Mallinckrodt's cumulative opioid MMEs shipped was 443.1 billion and its cumulative opioid dosages shipped was 49.3 billion. Therefore, its estimated opioid liability as of December 31, 2015 was \$52.6 billion based on MME (\$0.12 cost per MME times 443.1 billion MME shipped) and \$82.5 billion based on dosage (\$1.67 cost per dosage times 49.3 billion dosage shipped) (see Exhibit 5-1A). As Mallinckrodt may be jointly and severally liable for all damages related to the opioid crisis attributable to manufacturers, total industry-wide damages as of December 31, 2015 were \$239.2 billion based on MME (\$0.12 cost per MME times 2,013.9 billion MMEs shipped nationwide) or \$236.0 billion based on dosage (\$1.67 cost per dosage times 141.2 billion dosages shipped nationwide) (see Exhibit 5-1B). Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

71. The CEA 2017 study used the VSL methodology in calculating societal cost of the opioid epidemic, and estimated a higher cost on a per shipment basis than the other studies. Removing this study from the calculation has a minimal impact on Mallinckrodt's estimated opioid liability. The median of the societal cost attributable to manufacturers from the non-VSL studies was \$0.11 per MME shipped and \$1.61 per dosage shipped, resulting in a liability for Mallinckrodt as of December 31, 2015 of at least \$50.5 billion based on MME (\$0.11 cost per MME times 443.1 billion MME shipped) and \$79.6 billion based on dosage (\$1.61 cost per dosage times 49.3 billion dosage shipped) (see Exhibit 5-2A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2015 is \$229.6 billion based on MME (\$0.11 cost per MME times 2,013.9 billion MMEs shipped nationwide), and \$227.9 billion based on dosage (\$1.61 cost per dosage times 141.2 billion dosages shipped nationwide) (see Exhibit 5-2B).

72. While all the studies summarized in the median calculations shown in Table 3 observed the societal cost of prescription opioid abuse in years prior to the Share Repurchases, I note that certain studies, including the study that relied on the VSL methodology, were published after December 31, 2015. Removing these studies from the median implies the societal cost attributable to manufacturers per MME shipped is \$0.11 and the cost per dosage shipped is \$1.56. The estimated opioid liability as of December 31, 2015 was \$49.0 billion based on MME (\$0.11 cost per MME times 443.1 billion MME shipped) and \$77.1 billion based on dosage (\$1.56 cost per dosage times 49.3 billion dosage shipped) (see Exhibit 5-3A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2015 is \$222.5 billion based on MME (\$0.11 cost per MME times 2,013.9 billion MMEs shipped nationwide), and \$220.7 billion based on dosage (\$1.56 cost per dosage times 141.2 billion dosages shipped nationwide) (see Exhibit 5-3B). Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

v. *Mallinckrodt's Opioid Liability as of December 31, 2016*

73. To estimate Mallinckrodt's opioid liability as of December 31 2016, I reviewed studies that observed data and estimated the societal cost of the opioid epidemic for years prior to December 31, 2016. These studies are summarized in Table 4.

Table 4: Pre-2017 Opioid Studies Estimated Societal Cost¹⁰¹

Study	Observation Year	Total Societal Cost		Total Opioid Shipments (Billions)		Manufacturers Cost (\$)	
		(\$ Billions)	(Manufacturers) (\$ Billions)	MME	Dosage	per Shipment MME	Dosage
Hansen 2011	2006	\$ 53.4	\$ 17.8	156.1	11.0	\$ 0.11	\$ 1.61
Altarum 2018†	2006	48.7	16.2	156.1	11.0	0.10	1.47
Birnbaum 2011	2007	55.7	18.6	173.6	12.3	0.11	1.51
Altarum 2018†	2011	60.9	20.3	227.5	15.9	0.09	1.27
Florence 2016	2013	78.5	26.2	211.8	15.1	0.12	1.73
CEA 2017*†	2015	261.5	87.2	201.1	13.9	0.43	6.26
Altarum 2018†	2016	95.8	31.9	187.6	13.1	0.17	2.44
				Median		\$ 0.12	\$ 1.67
				Median (Excl. VSL)		0.11	1.61
				Median (Pre-12/31/16)		0.11	1.61

‡ For reference only. Cost per Shipment is excluded from the median calculation because this study included illicit drugs.

† Adjusted for removal of illicit opioid drugs.

* Used Value of a Statistical Life methodology.

74. For studies that estimated the societal cost of prescription opioid abuse only and have an observation year prior to December 31, 2016, the median societal cost attributable to manufacturers per MME and dosage shipped was \$0.12 and \$1.67, respectively. From 2006 through 2016, Mallinckrodt's cumulative opioid MMEs shipped totaled 479.6 billion and its cumulative opioid dosages shipped was 52.5 billion. Therefore, its estimated opioid liability as of December 31, 2016 was \$57.0 billion based on MME (\$0.12 cost per MME times 479.6 billion MME shipped) and \$87.7 billion based on dosage (\$1.67 cost per dosage times 52.5 billion dosage shipped) (see Exhibit 6-1A). As Mallinckrodt may be jointly and severally liable for all damages related to the opioid crisis attributable to manufacturers, total industry-wide damages as of December 31, 2016 were \$261.5 billion based on MME (\$0.12 cost per MME times 2,201.5 billion MMEs shipped nationwide) or \$257.9 billion

¹⁰¹ "Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001," Altarum, February 13, 2018. Note: All cost estimates are in 2016 dollars. "The Underestimated Cost of the Opioid Crisis," The Council of Economic Advisers, November 2017. Curtis Florence, et al., "The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013," Medical Care, October 2016. Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse in the United States," Pain Medicine, April 2011. Ryan H. Hansen et al., "Economic Costs of Nonmedical Use of Prescription Opioids," Clinical Journal of Pain March/April 2011.

based on dosage (\$1.67 cost per dosage times 154.3 billion dosages shipped nationwide) (see Exhibit 6-1B). Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

75. Excluding the study that relies on the VSL methodology results in a median societal cost attributable to manufacturers of \$0.11 per MME and \$1.61 per dosage. Multiplying those costs by Mallinckrodt's cumulative shipment from 2006 – 2016 results in an estimated opioid liability for Mallinckrodt as of December 31, 2016 of at least \$54.7 billion based on MME (\$0.11 cost per MME times 479.6 billion MME shipped) and \$84.7 billion based on dosage (\$1.61 cost per dosage times 52.5 billion dosage shipped) (see Exhibit 6-2A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2016 is \$251.0 billion based on MME (\$0.11 cost per MME times 2,201.5 billion MMEs shipped nationwide), and \$249.0 billion based on dosage (\$1.61 cost per dosage times 154.3 billion dosages shipped nationwide) (see Exhibit 6-2B).
76. While all the studies summarized in the median calculations shown in Table 4 observed the societal cost of prescription opioid abuse in years prior to the Share Repurchases, I note that certain studies, including the studies that relied on the VSL methodology, were published after December 31, 2016. After removing these studies from the median, the societal cost attributable to manufacturers per MME shipped is \$0.11 and the cost per dosage shipped is \$1.61, the same as the median of all the studies excluding VSL in Table 4 ("Median (Excl. VSL)"). This results in estimated opioid liabilities for Mallinckrodt as of December 31, 2016 of at least \$54.7 billion based on MME (\$0.11 cost per MME times 479.6 billion MME shipped) and \$84.7 billion based on dosage (\$1.61 cost per dosage times 52.5 billion dosage shipped) (see Exhibit 6-3A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2016 is \$251.0 billion based on MME (\$0.11 cost per

MME times 2,201.5 billion MMEs shipped nationwide), and \$249.0 billion based on dosage (\$1.61 cost per dosage times 154.3 billion dosages shipped nationwide) (see Exhibit 6-3B).

Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

vi. *Mallinckrodt's Opioid Liability as of December 31, 2017*

77. To estimate Mallinckrodt's opioid liability as of December 31 2017, I reviewed studies that observed data and calculated the societal cost of the opioid epidemic for years prior to December 31, 2017. These studies are summarized in Table 5 below.

Table 5: Pre-2018 Opioid Studies Estimated Societal Cost¹⁰²

Study	Year	Total Societal Cost		Total Opioid Shipments (Billions)		Manufacturers Cost (\$)	
		Observation (\$ Billions)	Societal Cost (Manufacturers) (\$ Billions)	MME	Dosage	per Shipment MME	Dosage
Hansen 2011	2006	\$ 53.4	\$ 17.8	156.1	11.0	\$ 0.11	\$ 1.61
Altarum 2018†	2006	48.7	16.2	156.1	11.0	0.10	1.47
Birnbaum 2011	2007	55.7	18.6	173.6	12.3	0.11	1.51
Altarum 2018†	2011	60.9	20.3	227.5	15.9	0.09	1.27
Florence 2016	2013	78.5	26.2	211.8	15.1	0.12	1.73
CEA 2017*†	2015	261.5	87.2	201.1	13.9	0.43	6.26
Altarum 2018†	2016	95.8	31.9	187.6	13.1	0.17	2.44
Florence 2021*†	2017	1,020.7	340.2	163.1	11.7	2.09	28.97
MHA 2019*†	2017	684.6	228.2	163.1	11.7	1.40	19.43
Median						\$ 0.12	\$ 1.67
Median (Excl. VSL)						0.11	1.61
Median (Pre-12/31/17)						0.12	1.67
Median (Excl. VSL, Pre-12/31/17)						0.11	1.61

‡ For reference only. Cost per Shipment is excluded from the median calculation because this study included illicit drugs.

† Adjusted for removal of illicit opioid drugs.

* Used Value of a Statistical Life methodology.

78. For studies that estimated the societal cost of prescription opioid abuse only and have an observation year prior to December 31, 2017, the median societal cost attributable to

¹⁰² "Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001," Altarum, February 13, 2018. Note: All cost estimates are in 2016 dollars. "The Underestimated Cost of the Opioid Crisis," The Council of Economic Advisers, November 2017. Curtis Florence, et al., "The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013," Medical Care, October 2016. Curtis Florence, et al., "The economic burden of opioid use disorder and fatal opioid overdose in the United States, 2017," Drug and Alcohol Dependence, October 27, 2020. Howard G. Birnbaum et al., "Societal costs of prescription opioid abuse, dependence, and misuse

manufacturers per MME and dosage shipped was \$0.12 and \$1.67, respectively. From 2006 through 2017, Mallinckrodt's cumulative opioid MMEs shipped was 514.1 billion and its cumulative opioid dosages shipped was 55.6 billion. Therefore, its estimated opioid liability as of December 31, 2017 was \$61.1 billion based on MME (\$0.12 cost per MME times 514.1 billion MME shipped) and \$92.9 billion based on dosage (\$1.67 cost per dosage times 55.6 billion dosage shipped) (see Exhibit 7-1A). As Mallinckrodt may be jointly and severally liable for all damages related to the opioid crisis attributable to manufacturers, total industry-wide damages as of December 31, 2017 were \$280.8 billion based on MME (\$0.12 cost per MME times 2,364.6 billion MMEs shipped nationwide) or \$277.5 billion based on dosage (\$1.67 cost per dosage times 166.0 billion dosages shipped nationwide) (see Exhibit 7-1B). Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

79. Excluding studies that rely on the VSL methodology results in a median societal cost attributable to manufacturers of \$0.11 per MME and \$1.61 per dosage. Multiplying those costs by Mallinckrodt's cumulative shipment from 2006 – 2017 results in an estimated opioid liability for Mallinckrodt as of December 31, 2016 of at least \$58.6 billion based on MME (\$0.11 cost per MME times 514.1 billion MME shipped) and \$89.6 billion based on dosage (\$1.61 cost per dosage times 55.6 billion dosage shipped) (see Exhibit 7-2A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2017 is \$269.6 billion based on MME (\$0.11 cost per MME times 2,364.6 billion MMEs shipped

in the United States," Pain Medicine, April 2011. Mat Reidhead and Shawn Billings, "The Economic Cost of the Opioid Crisis in the U.S.: A State-by-State Comparison," Missouri Hospital Association, April 2019. Ryan H. Hansen et al., "Economic Costs of Nonmedical Use of Prescription Opioids," Clinical Journal of Pain March/April 2011.

nationwide), and \$267.9 billion based on dosage (\$1.61 cost per dosage times 166.0 billion dosages shipped nationwide) (see Exhibit 7-2B).

80. While all the studies summarized in the median calculations shown in Table 5 observed the societal cost of prescription opioid abuse in years prior to the Share Repurchases, I note that certain studies were published after December 31, 2017. After removing these studies from the median calculation, the societal cost attributable to manufacturers per MME shipped is \$0.12 and the cost per dosage shipped is \$1.67. This results in estimated opioid liabilities for Mallinckrodt as of December 31, 2017 of \$61.1 billion based on MME (\$0.12 cost per MME times 514.1 billion MME shipped) and \$92.9 billion based on dosage (\$1.67 cost per dosage times 55.6 billion dosage shipped) (see Exhibit 7-3A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2017 is \$280.8 billion based on MME (\$0.12 cost per MME times 2,364.6 billion MMEs shipped nationwide), and \$277.5 billion based on dosage (\$1.67 cost per dosage times 166.0 billion dosages shipped nationwide) (see Exhibit 7-3B).
81. Additionally, I replicated this analysis of studies published prior to December 31, 2017 while also excluding the CEA 2017 study that relied on the VSL methodology. After removing studies published after December 31, 2017 and the CEA 2017 study, the median societal cost attributable to manufacturers per MME shipped is \$0.11 and the cost per dosage shipped is \$1.61. This results in estimated opioid liabilities for Mallinckrodt as of December 31, 2017 of \$58.6 billion based on MME (\$0.11 cost per MME times 514.1 billion MME shipped) and \$89.6 billion based on dosage (\$1.61 cost per dosage times 55.6 billion dosage shipped) (see Exhibit 7-4A). On an industry-wide basis, Mallinckrodt's estimated opioid liability as of December 31, 2017 is \$269.6 billion based on MME (\$0.11 cost per MME times 2,364.6 billion MMEs shipped nationwide), and \$267.9 billion based

on dosage (\$1.61 cost per dosage times 166.0 billion dosages shipped nationwide) (see Exhibit 7-4B). Again, as this information is based on ARCOS data which only began in 2006, Mallinckrodt and industry-wide damages were actually substantially higher.

vii. *Summary of Mallinckrodt's Opioid Liabilities*

82. Consistent with industry practice, I conclude on the minimum from each range of opioid liability that I calculated based on the societal costs determined in the studies. As shown in Table 6 below, Mallinckrodt's opioid liabilities, based on its opioid shipments, were at least \$44.6 billion as of December 31, 2014, \$49.0 billion as of December 31, 2015, \$54.7 billion as of December 31, 2016, and \$58.6 billion as of December 31, 2017. These liabilities should have been accrued by Mallinckrodt at the respective dates.

Table 6: Summary of Mallinckrodt's Opioid Liabilities

(\$ Billions) As of December 31,	Cumulative Shipments Mallinckrodt		Cumulative Opioid Liability Mallinckrodt	
	MME	Dosage	MME	Dosage
2014	404.0	45.9	\$ 44.6	\$ 71.7
2015	443.1	49.3	49.0	77.1
2016	479.6	52.5	54.7	84.7
2017	514.1	55.6	58.6	89.6

83. It is important to note that the liabilities calculated in Table 6 only incorporate shipment data going back to 2006. These calculations are conservative as Mallinckrodt was producing and shipping opioids well before 2006 (when the ARCOS data began). Therefore, its opioid related liability as of the Estimate Dates was actually far in excess of the numbers summarized in the table above. Additionally, I have been advised by counsel that Mallinckrodt may be jointly and severally liable for all damages related to the opioid crisis attributable to manufacturers, in which case I have calculated liabilities based on total opioid shipments from the ARCOS data. The liabilities related to total industry shipments are summarized in Table 7, below.

Table 7: Summary of Mallinckrodt's Opioid Liabilities (Industry)

(\$ Billions) As of December 31,	Cumulative Shipments Industry		Cumulative Opioid Liability Industry	
	MME	Dosage	MME	Dosage
2014	1,812.8	127.3	\$ 200.3	\$ 199.0
2015	2,013.9	141.2	222.5	220.7
2016	2,201.5	154.3	251.0	249.0
2017	2,364.6	166.0	269.6	267.9

84. The analyses outlined above or any similar analyses based on the available data at the time estimating the cost of the opioid crisis together with Mallinckrodt's market share could have and should have been performed by the Board prior to the Share Repurchases in order to assess and estimate this contingent liability. Furthermore, if Mallinckrodt were jointly and severally liable for all damages related to the opioid crisis (including distributors, and retailers), these amounts would be three times greater. Additionally, my calculations are conservative because costs of abatement and potential pre-judgment interest have not been included. Therefore, it is my opinion that Mallinckrodt's opioid liabilities were reasonably estimable at the time of the Share Repurchases.

B. Corroborating Evidence of Mallinckrodt's Opioid Liabilities

i. Purdue's \$634.5 Million Guilty Plea in 2007

85. As corroborating evidence to estimate Mallinckrodt's opioid liabilities at the time of the Share Repurchases, I analyzed the May 10, 2007 Purdue guilty plea reached with the U.S. Attorney's Office Western District of Virginia, in connection with lawsuits filed in relation to opioid distribution, for approximately \$634.5 million.¹⁰³ In the Purdue Plea, Purdue executives pled guilty to misbranding its opioid drug, OxyContin, by "falsely claiming that

¹⁰³ "The Purdue Frederick Company, Inc. and Top Executives Plead Guilty To Misbranding OxyContin; Will Pay Over \$600 Million," The United States Attorney's Office Western District of Virginia, May 10, 2007.

OxyContin was less addictive, less subject to abuse, and less likely to cause withdrawal symptoms than other pain medications when there was no medical research to support these claims and without Food and Drug Administration approval of these claims.”¹⁰⁴ While this litigation relates specifically to misconduct by top executives at Purdue, it provides one indication of the liability Mallinckrodt faced at the time of the Share Repurchases. As discussed previously, Mallinckrodt was aware of its misconduct prior to the Share Repurchases and, at that time, could have used this guilty plea payment by Purdue to estimate its own opioid liability. In order to use the Purdue Plea to estimate Mallinckrodt’s opioid liability, I compared Purdue and Mallinckrodt using MME and dosage shipped data from the ARCOS data.

86. According to ARCOS data, in 2006, Purdue shipped 9.5 billion MMEs of opioids in the U.S. Comparatively, in 2006, Mallinckrodt shipped 30.0 billion MMEs of opioids, or approximately 3.1 times more (30.0 billion MMEs divided by 9.5 billion MMEs, “MNK/Purdue MME Ratio”). This implies a nationwide liability of \$2.0 billion as of May 2007 (\$634.5 million times “MNK/Purdue MME Ratio”) based on the Purdue Plea. This calculation is summarized in Table 8 below.

¹⁰⁴ “The Purdue Frederick Company, Inc. and Top Executives Plead Guilty To Misbranding OxyContin; Will Pay Over \$600 Million,” The United States Attorney’s Office Western District of Virginia, May 10, 2007.

Table 8: MNK's Estimated Nationwide Plea based on Purdue Plea (MME)

Purdue Plea: MNK Pro-Rata (MME) (in millions, except ratio)		
Purdue Plea	\$	634.5
Purdue 2006 Shipments (MME)		9,539
MNK 2006 Shipments (MME)		29,967
MNK/Purdue MME Ratio		3.1
Implied MNK Payment (MME)	\$	1,993

87. As the Purdue Plea occurred in 2007, this amount is not a current indication of the liability for Mallinckrodt at the time of the Share Repurchases (2015 – 2018). Because Mallinckrodt continued to produce opioids and contribute to the opioid epidemic post-2007, this liability would be much greater than \$2 billion at the time of the Share Repurchases.
88. Additionally, I have replicated this analysis on a per dosage basis. The ARCOS data shows that Purdue shipped 164 million dosages in 2006, compared to 4.7 billion dosages shipped by Mallinckrodt that year, more than 28 times as many (164 million dosages divided by 4.7 billion dosages, “MNK/Purdue Dosage Ratio”). Applying the MNK/Purdue Dosage Ratio to Purdue’s \$634.5 million payment implies a liability of approximately \$18.2 billion, as of May 2007 (\$634.5 million times 28.7 MNK/Purdue Dosage Ratio). This calculation is summarized in Table 9 below.

Table 9: MNK's Estimated Nationwide Plea based on Purdue Plea (Dosage)

Purdue Plea: MNK Pro-Rata (Dosage) (in millions, except ratio)		
Purdue Plea	\$	634.5
Purdue 2006 Shipments (Dosage)		164
MNK 2006 Shipments (Dosage)		4,688
MNK/Purdue Dosage Ratio		28.7
Implied MNK Payment (Dosage)	\$	18,188

89. Similarly, as the Purdue Plea occurred in 2007, this amount is not a current indication of the liability for Mallinckrodt at the time of the Share Repurchases. Because Mallinckrodt continued to produce opioids and contribute to the opioid epidemic post-2007, this liability would be much greater than \$18.2 billion at the time of the Share Repurchases.

90. The Purdue Plea that occurred in 2007 is highly informative as to the opioid liability that Mallinckrodt was likely to have faced as a result of its opioid distribution and misconduct. As discussed above, Mallinckrodt was the largest producer of opioids, based on market share of MMEs and dosages, and thus should have expected to face larger liabilities than other industry participants, such as Purdue. This simple extrapolation analysis could have been performed by Mallinckrodt to estimate its own opioid liabilities as a result of the opioid crisis. Additionally, the plea payment made by Purdue was less than the potential penalties it faced in a guilty verdict, meaning that this is a conservative estimate of Mallinckrodt's opioid liability.

ii. Mallinckrodt Management Stated Opioid Liability in Excess of \$30 billion

91. Mallinckrodt filed for Chapter 11 bankruptcy on October 12, 2020, citing “a years-long onslaught of litigation regarding Specialty Generics’ production and sale of opioid medications, as well as more than 25 litigations and government investigations involving Specialty Brands.”¹⁰⁵ In discussing the “onslaught of litigation” against Mallinckrodt, Chief Transformation Officer (“CTO”) Stephen Welch noted that “judgements... could quickly aggregate into the **billions or tens of billions of dollars if even a fraction of plaintiffs are successful in winning all of the damages they seek**.”¹⁰⁶ The CTO testified at a December 6, 2021 hearing that, “I think I testified early in this case that the **extrapolation** of that [Ohio counties settlement] would have resulted in **a liability in excess of \$30 billion** to the company.”¹⁰⁷ This liability represents Mallinckrodt's estimation of opioid liabilities at the

¹⁰⁵ In re: Mallinckrodt plc, et al., Debtors, Declaration of Stephen A. Welch, Chief Transformation Officer, In Support of Chapter 11 Petitions and First Day Motions, Chapter 11, Case No 20-12522 (JTD), October 12, 2020, (“First Day Declaration”) pp. 1, 29.

¹⁰⁶ First Day Declaration, p. 39. (Emphasis added).

¹⁰⁷ Trial Phase II (Day #1), Transcript of Hearing Before the Honorable John T. Dorsey United States Bankruptcy Judge, December 6, 2021, p. 63. (Emphasis added).

time of its bankruptcy. In order to determine what Mallinckrodt's liability was at the time of the Share Repurchases, based on Mallinckrodt's own estimate, I pro-rated the \$30 billion by the proportion of Mallinckrodt's cumulative shipments that occurred prior to each year of the Share Repurchases (Mallinckrodt's cumulative shipments from 2006 – 2019 represented the “full” period over which Mallinckrodt accrued liability “in excess of \$30 billion”).¹⁰⁸

92. From 2006 – 2014, Mallinckrodt shipped 404.0 billion MMEs of opioids nationwide, or 68.9% of the 586.7 billion MMEs of opioids shipped from 2006 – 2019. Mallinckrodt's cumulative MME shipments, and pro-rata percentage of 2006 – 2019 MME shipments are shown in Table 10 below.

Table 10: MNK's Estimated Nationwide Settlement based on \$30 billion Liability (MME)

(Billions) Year	Cumulative MME		Pro-Rata (%)	Pro-Rated \$30 billion
	2006 -	2006 - 2019		
2014	404.0	586.7	68.9%	\$ 20.7
2015	443.1	586.7	75.5%	22.7
2016	479.6	586.7	81.8%	24.5
2017	514.1	586.7	87.6%	26.3
2018	549.5	586.7	93.7%	28.1

93. This table shows the cumulative MME shipped by Mallinckrodt through each year prior to the Share Repurchases occurring, or the proportion of opioids shipped by each date shown in the table. I use these proportions to pro-rate the \$30 billion liability.
94. Conservatively assuming that Mallinckrodt's “\$30 billion” estimation from the bankruptcy proceedings represents liability for its shipments from 2006 – 2019 (despite Mallinckrodt's shipments prior to 2006, or that the actual liability could be “in excess” of \$30 billion”), this extrapolation analysis shows that as of December 31, 2014 Mallinckrodt faced opioid

¹⁰⁸ Trial Phase II (Day #1), Transcript of Hearing Before the Honorable John T. Dorsey United States Bankruptcy Judge, December 6, 2021, p. 63.

liability of \$20.7 billion. This amount increased to \$22.7 billion as of December 31, 2015, \$24.5 billion as of December 31, 2016, and \$26.3 billion as of December 31, 2017.

95. I replicated this calculation based on dosage shipments by Mallinckrodt over the same time periods. From 2006 –2014, Mallinckrodt shipped 45.9 billion dosages, or 73.3% of the 62.5 billion dosages shipped from 2006 –2019. Mallinckrodt’s cumulative dosage shipments, and pro-rata percentage of 2006 – 2019 dosage shipments are shown in Table 11 below.

Table 11: MNK’s Estimated Nationwide Settlement based on \$30 billion Liability (Dosage)

(Billions) Year	Cumulative Dosage		Pro-Rata (%)	Pro-Rated \$30 billion
	2006 -	2006 - 2019		
2014	45.9	62.5	73.3%	\$ 22.0
2015	49.3	62.5	78.9%	23.7
2016	52.5	62.5	83.9%	25.2
2017	55.6	62.5	88.8%	26.7
2018	58.8	62.5	94.1%	28.2

96. Based on cumulative dosage shipments, the pro-rata liability of Mallinckrodt’s estimated \$30 billion liability was \$22.0 billion as of December 31, 2014. This liability increased to \$23.7 billion as of December 31, 2015, \$25.2 billion as of December 31, 2016, and \$26.7 billion as of December 31, 2017.

iii. Purdue Disclosure Statement Admitted to Trillions of Damages

97. Purdue filed for bankruptcy on September 15, 2019, “with the goal of directing as much of the value of their assets as possible to combatting the opioid crisis in this country.”¹⁰⁹ Purdue faced hundreds of thousands of claims by this time, with over 614,000 filed by July 30, 2020.¹¹⁰ According to Purdue’s filing, only an approximate 10% of claims submitted stated a claim amount, but those claims totaled “over \$140 trillion.”¹¹¹ One of the

¹⁰⁹ Purdue Disclosure Statement, filed June 3, 2021, p. 2.

¹¹⁰ Purdue Disclosure Statement, filed June 3, 2021, p. 25.

¹¹¹ Purdue Disclosure Statement, filed June 3, 2021, p. 25.

aforementioned claim amounts was \$100 trillion, but even excluding that claim, the “approximately 10% of Proofs of Claim that state claim amounts assert, in the aggregate, claims of over \$40 trillion.”¹¹² Based on these claims, Purdue stated in its filings that:

“[t]he Debtors [**Purdue**] **believe that any reasonable estimate, projection or valuation of their total liability and obligation to pay for Claims** in Classes 3, 4, 5, 6, 7, 8, 9, 10(a) and 10(b), if they had the ability to pay those Claims outside of these Chapter 11 Cases, **exceeds by many multiples the total value of all assets** of their Estates...”¹¹³

98. As stated above, Mallinckrodt was a larger manufacturer than Purdue, and had numerous examples of misconduct that indicated it would have faced similar lawsuits on its opioid liability. Purdue’s claim that it faced trillions of dollars in liability is corroborating evidence that Mallinckrodt faced significant opioid liabilities, at the time of the Share Repurchases.

VIII. Mallinckrodt Did Not Have Profits Available for Distribution at the Time of the Share Repurchases

99. As Mallinckrodt was incorporated in Ireland at the time of the Share Repurchases, I have been advised by counsel that it was subject to the Irish Companies Act 2014 (the “Act”). According to the Act, a company’s repurchase of shares is “...subject to payment in respect of the shares’ acquisition being made out of – (a) profits available for distribution...”¹¹⁴

The Act defines “profits available for distribution” as:

“[a] company’s profits available for distribution are its **accumulated realised profits, so far as not previously utilised by distribution or capitalisation**, less its accumulated, realised losses, so far as not previously written off in a reduction or reorganisation of capital duly made.”¹¹⁵

¹¹² Purdue Disclosure Statement, filed June 3, 2021, p. 25.

¹¹³ Purdue Disclosure Statement, filed June 3, 2021, p. 199. (Emphasis added).

¹¹⁴ Number 38 of 2014, Companies Act 2014, Section 105, p. 150.

¹¹⁵ Number 38 of 2014, Companies Act 2014, Section 117, p. 160. (Emphasis added).

100. While the Act does provide a definition of profits available for distribution, it does not provide guidance on how profits available for distribution are calculated. Furthermore, in my review of Mallinckrodt's public filings and the board minutes approving the Share Repurchases, there is no reference to how Mallinckrodt's profits available for distribution are calculated. As there is no clear definition of the calculation of profits available for distribution in the Act or in MNK's filings, I reviewed Mallinckrodt's accounting standards (U.S. GAAP) for guidance.

101. Similar to the Act, U.S. GAAP does not provide guidance on how to calculate a company's profits available for distribution. However, it is my opinion that U.S. GAAP's definition of retained earnings is reasonably similar to the Act's definition of profits available for distribution, and thus can serve as a starting point for Mallinckrodt's profits available for distribution calculation.¹¹⁶ Retained earnings is defined as the following:

“Retained earnings is net income that is kept (retained) in the business. It represents the portion of stockholders' equity that the company has accumulated through the profitable operation of the business.”¹¹⁷

102. In order to determine Mallinckrodt's profits available for distribution as of the time of the Share Repurchases, I adjusted Mallinckrodt's retained earnings to reflect its opioid contingent liability and to remove a one-time, non-cash income tax benefit.¹¹⁸ Table 12

¹¹⁶ Throughout this report, “retained earnings” refers to Mallinckrodt's cumulative earnings on the balance sheet. Moreover, throughout this report, “profits available for distributions” is defined as retained earnings adjusted for accrued contingent liabilities, realized share repurchases, and one-time, non-cash income tax adjustments.

¹¹⁷ Weygandt, Jerry J., Paul D. Kimmel, and Donald E. Kieso, “Financial Accounting,” 10th Ed., Wiley, 2017, p. 54. (Emphasis added).

¹¹⁸ In FY2017, Mallinckrodt recorded a one-time, non-cash income tax benefit as a result of a corporate restructuring. In the FY2017 10-K, MNK management stated that, “[T]he Internal Revenue Code required us to reallocate our tax basis from an investment in shares of a wholly owned subsidiary to assets within another legal entity with no corresponding change in accounting basis. A deferred tax liability was not recognized on the wholly owned subsidiary as there is a means for its recovery in a tax-free manner. The reallocation of tax basis resulted in a decrease to the net deferred tax liabilities associated with the assets within the other legal entity. As a result, **during fiscal 2017**, we **recognized an income tax benefit**, net of unrecognized tax benefits, of **\$1,054.8 million primarily**

below summarizes Mallinckrodt's profits available for distribution prior to and during the Share Repurchases.

Table 12: Summary of Mallinckrodt's Opioid Liability and Profits Available for Distribution¹¹⁹

(\$ Millions)	As of December,				
	2014	2015	2016	2017	2018
Retained Earnings	\$ (193)	\$ 250	\$ 529	\$ 2,589	\$ (1,018)
- Adjustment for one-time, non-cash Item	-	-	-	(1,055)	(1,055)
- Opioid Liability	(44,633)	(48,956)	(54,678)	(58,611)	(58,611)
Profits Available for Distribution	(44,827)	(48,706)	(54,149)	(57,077)	(60,683)

103. As shown in the table above, prior to and throughout the Share Repurchase period,

Mallinckrodt's profits available for distribution were severely negative as a result of its large contingent opioid liabilities.¹²⁰ Therefore, Mallinckrodt did not have sufficient profits available to make the Share Repurchases.

IX. Summary of Conclusions

104. Based on my review of the available evidence, it is my opinion that:

- a) At the time Mallinckrodt repurchased shares, Mallinckrodt's opioid liabilities were probable.
- b) At the time Mallinckrodt repurchased shares, Mallinckrodt's opioid liabilities were reasonably estimable.
- c) As Mallinckrodt's opioid liabilities were probable and reasonably estimable, the Company should have accrued a contingent liability.

as a result of a reduction to our net deferred tax liabilities." As this one-time income tax benefit is non-cash, it is my opinion that, it should not be included as profits available for distribution.

¹¹⁹ Mallinckrodt Public Filings, Exhibits 4 – 7 of the Shaked Affidavit.

¹²⁰ It is my opinion that Mallinckrodt's profits available for distribution were negative from at least December 31, 2014 through December 31, 2018, the entire period of the Share Repurchases.

- d) If Mallinckrodt had correctly accrued a contingent liability at the time of the Share Repurchases, Mallinckrodt's own financial statements would have shown Mallinckrodt that it did not have sufficient profits available for distribution to conduct the Share Repurchases.
- e) Mallinckrodt repurchased almost \$1.6 billion of its own shares without sufficient profits available for distribution to do so.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "I. Shaked", is written over a horizontal line.

Dr. Israel Shaked

January 18, 2024

Exhibits

Exhibit 1

Mallinckrodt plc

Documents and Other Information Considered

SEC FILINGS

- Mallinckrodt plc Form 10-K for the fiscal year ended September 26, 2014.
- Mallinckrodt plc Form 10-K for the fiscal year ended September 25, 2015.
- Mallinckrodt plc Form 10-K for the fiscal year ended September 30, 2016.
- Mallinckrodt plc Form 10-K for the fiscal year ended December 31, 2017.
- Mallinckrodt plc Form 10-K for the fiscal year ended December 28, 2018.

BOARD OF DIRECTORS PRESENTATIONS

- Mallinckrodt plc, Meeting of the Board of Directors, January 22, 2015 (MNK-OP-Trust_04706932).
- Mallinckrodt plc, Meeting of the Board of Directors, November 18 – 19, 2015 (MNK_OCC&UCC_00340567).
- Mallinckrodt plc, Meeting of the Board of Directors, March 16 – 17, 2016 (MNK_OCC&UCC_00305710).
- Mallinckrodt plc, Meeting of the Board of Directors, March 1 – 2, 2017 (MNK-OP-Trust_04625828).

BANKRUPTCY DOCKET FILINGS

- In re: Mallinckrodt plc, et al., Debtors, Declaration of Stephen A. Welch, Chief Transformation Officer, In Support of Chapter 11 Petitions and First Day Motions, Chapter 11, Case No 20-12522 (JTD), October 12, 2020.
- Purdue Disclosure Statement, filed June 3, 2021.
- Trial Phase II (Day #1), Transcript of Hearing Before the Honorable John T. Dorsey United States Bankruptcy Judge, December 6, 2021.

ARTICLES & PRESS RELEASES

- “Attorney General Raoul Takes Action Against Opioid Manufacturer,” Illinois Attorney General, October 22, 2019.
- “Cardinal Health Inc., Agrees to Pay \$34 Million to Settle Claims That It Failed To Report Suspicious Sales of Widely-Abused Controlled Substances,” The United States Attorney’s Office, Colorado, October 2, 2008.
- “City of Chicago Sues Big Pharma for Deceptively Marketing Highly Addictive Prescription Painkillers,” Office of the Mayor, June 3, 2014.

- “DEA Launches First Rx Drug 'Take-Back' Day,” CBS News New York, September 24, 2010.
- “Epidemic: Responding To America’s Prescription Drug Abuse Crisis,” Executive Office of the President of the United States, 2011.
- “FDA’s Efforts to Address the Misuse and Abuse of Opioids,” FDA, February 6, 2013.
- “Methadone linked to 30 percent of prescription painkiller overdose deaths,” CDC Newsroom, July 3, 2012.
- “The Purdue Frederick Company, Inc. and Top Executives Plead Guilty To Misbranding OxyContin; Will Pay Over \$600 Million,” The United States Attorney’s Office Western District of Virginia, May 10, 2007.
- Cave, Damien, “Legal Drugs Kill Far More Than Illegal, Florida Says,” New York Times, June 14, 2008.
- Hedegaard, Holly, Arialdi M. Miniño, and Margaret Warner, “Drug Overdose Deaths in the United States, 1999-2019,” NCHS Data Brief No. 394, December 2020.
- Meier, Barry. Pain Killer: A “Wonder” Drug’s Trail of Addiction and Death. Rodale Books, 2003.
- Rosenberg, Tina, “When Is a Pain Doctor a Drug Pusher?” New York Times Sunday Magazine, June 17, 2007.
- Singer, Natasha, “Taking the Fun Out of Popping Pain Pills,” New York Times, September 19, 2009.
- Settlement and Release Agreement and Administrative Memorandum of Agreement, The United States Department of Justice Drug Enforcement Administration, May 2, 2008.
- Van Zee, Art, "The Promotion and Marketing of OxyContin: Commercial Triumph, Public Health Tragedy," American Journal of Public Health, May 9, 2008.
- Young, Sandra, “White House launches effort to combat soaring prescription drug abuse,” CNN, April 19, 2011.

OPIOID STUDIES

- “Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001,” Altarum, February 13, 2018.
- “The Underestimated Cost of the Opioid Crisis,” The Council of Economic Advisers, November 2017.
- Curtis Florence, et al., “The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013,” Medical Care, October 2016.
- Curtis Florence, et al., “The economic burden of opioid use disorder and fatal opioid overdose in the United States, 2017,” Drug and Alcohol Dependence, October 27, 2020.

- Howard G. Birnbaum et al., “Estimated Costs of Prescription Opioid Analgesic Abuse in the United States in 2001: A Societal Perspective,” Clinical Journal of Pain, October 2006.
- Howard G. Birnbaum et al., “Societal costs of prescription opioid abuse, dependence, and misuse in the United States,” Pain Medicine, April 2011.
- Mat Reidhead and Shawn Billings, “The Economic Cost of the Opioid Crisis in the U.S.: A State-by-State Comparison,” Missouri Hospital Association, April 2019.
- Ryan H. Hansen et al., “Economic Costs of Nonmedical Use of Prescription Opioids,” Clinical Journal of Pain March/April 2011.
- Sean M. Murphy, “The cost of opioid use disorder and the value of aversion,” Drug and Alcohol Dependence, October 2020.
- Stoddard Davenport, Alexandra Weaver, and Matt Caverly, “Economic Impact of Non-Medical Opioid Use in the United States: Annual Estimates and Projections for 2015 through 2019,” Society of Actuaries, October 2019.

BATES-STAMPED DOCUMENTS

- “Mallinckrodt Controlled Substance Suspicious Order Monitoring System Program,” API Sales & Marketing Meeting, Covidien, September 30, 2009 (MNK-T1_0005876624).
- [REDACTED] (MNK-T1_0000391545).
- Cegedim Relationship Management Webinar, DEA Controlled Substances Act – Strategies for an Effective Compliance Program (MNKTRUST_0000201705 at – 1707).
- E-mail from Art Morelli to Kevin Holman, January 12, 2010 (MNK-T1_0007200387).
- E-mail from Gigi Royse to Kathy Schaefer, December 5, 2012 (MNK-OP-Trust_03007223).
- E-mail from Karen Harper to Tom Berry, July 21, 2010 (MNK-T1_0000473647).
- [REDACTED] (MNK_OCC&UCC_02052435).
- E-mail from Kate Muhlenkamp to Dave Irwin, et al., June 18, 2010 (MNK-T1_0000561028).
- MNKTRUST_0000741614.
- [REDACTED] (MNK_OCC&UCC_02535877).

OTHER

- “Drug Overdose Death Rates,” National Institute on Drug Abuse. “Overdose_data_1999-2021 1.19.23.xlsx.”
- 16.239.9 Share Repurchases Summary Vshare.xlsx.
- Active_65403166_36_MNK Opioid Litigation Tracker.xlsx.
- ASC 450.20.
- Centers for Disease Control and Prevention, National Center for Health Statistics.
- City of Chicago v. Purdue Pharma L.P., No. 2014-04361 (N.D. Ill. Sept. 3, 2021) Dkt. No. 1130-4.
- City of Chicago v. Purdue Pharma L.P. et al. (<https://dockets.justia.com/docket/illinois/ilndce/1:2014cv04361/297040>).
- Declaration of Damien Malone, January 15, 2024.
- Expert Report of Craig J. McCann, March 25, 2019 (Redacted).
- Financial Reporting Control, January 2022, FRS 102, The Financial Reporting Standard applicable in the UK and Republic of Ireland, Section 21.4.
- In re Nat’l Prescription Opiate Litig., 622 F. Supp. 3d 584, 592 (N.D. Ohio 2022).
- Number 38 of 2014, Companies Act 2014, Section 105.
- Number 38 of 2014, Companies Act 2014, Section 117.
- Prescription Drug Monitoring Program, “Morphine Milligram Equivalents Fact Sheet,” Maryland Department of Health.
- Weygandt, Jerry J., Paul D. Kimmel, and Donald E. Kieso, “Financial Accounting,” 10th Ed., Wiley, 2017.

DATA SOURCES

- ARCOS Data, (<https://www.slcg.com/opioid-data/>).
- Capital IQ.

Any other items cited in the report not listed are incorporated herein by reference.

Exhibit 2**ISRAEL SHAKED***Work Address (Academic):*

Boston University
 Questrom School of Business
 595 Commonwealth Avenue (Room 518G)
 Boston, MA 02215
 Tel: (617) 353-2665
 Fax: (617) 353-6667
 E-mail: shaked@bu.edu

Work Address (Practice):

The Michel-Shaked Group
 2 Park Plaza
 Suite 500
 Boston, MA 02116
 Tel: (617) 426-4455
 Fax: (617) 426-6555
 E-mail: ishaked@michel-shaked.com

EDUCATION

- 1976-1980 HARVARD GRADUATE SCHOOL OF BUSINESS ADMINISTRATION
 Doctor of Business Administration, June 1980. Special field: Finance. Received Harvard Business School and Jerusalem Institute of Management Fellowships. Won the Harvard Business School Division of Research thesis competition.
- HEBREW UNIVERSITY OF JERUSALEM Jerusalem, Israel
- 1974-1976 Master of Business Administration (MBA), with concentration in finance. Graduated summa cum laude. Fellowship recipient.
- 1970-1973 Bachelor of Arts in Economics and Bachelor of Arts in Statistics. Both summa cum laude.

TEACHING EXPERIENCE

- 2022-Present BOSTON UNIVERSITY QUESTROM SCHOOL OF BUSINESS, Boston, MA
Professor Emeritus.
- 1978-2021 BOSTON UNIVERSITY QUESTROM SCHOOL OF BUSINESS, Boston, MA
Professor, Finance/Economics. Taught various courses at the doctoral, graduate and undergraduate level. Won the Boston University School of Management Broderick Prize for excellence in teaching in the years 1982-1983 and 1984-1985. Finance department nominee for Broderick prize for excellence in teaching, 1981-1982, and 1980-1981.
- 1984-2002 Director, BOSTON CHARTERED FINANCIAL ANALYSTS (CFA) REVIEW PROGRAM
 A 3-level program preparing financial analysts, portfolio managers, brokers, and other investment professionals for an examination leading to worldwide certification. The program is one of the world's most prestigious of its kind. Its core curriculum consists of the following modules:
- | | |
|------------------------------------|--------------------------------------|
| * Equity Securities Analysis | * Financial Accounting |
| * Fixed Income Securities Analysis | * Economic Analysis |
| * Portfolio Management | * Quantitative Analysis |
| * Derivative Securities | * Ethical and Professional Standards |
- 1994-2001 Director, THE INSTITUTE OF CHARTERED PENSION PROFESSIONALS (ICPP)
 The Institute sponsors various activities for board members of pension funds, support staff and other individuals associated with pension plans. The Chartered Pension Professionals (CPP) certification is designated by the Institute. The certification program covers a wide range of investment-related areas such as equity securities, fixed income securities, economics, portfolio management, and fiduciary responsibility. Responsibilities included directing the program and teaching in each of the subject matter areas.

1977-1978 UNIVERSITY OF MASSACHUSETTS, Boston, MA
Instructor, Theory of Finance

BUSINESS EXPERIENCE

1985-present BACK BAY MANAGEMENT CORPORATION
 Founder and President

1980-1992 BOSTON MANAGEMENT GROUP
 Managing Director

1991-present THE MICHEL-SHAKED GROUP
 Co-founder and Managing Director

1997-2016 AMERICAN BANKRUPTCY INSTITUTE
 Board Member and Contributing Editor (American Bankruptcy Institute Journal)

1980-present Various consulting activities, including investment banking and financial services, mergers/acquisitions, LBOs, financial distress/bankruptcy, litigation analysis and expert witness work for law firms on numerous financial issues, and executive management development programs in general management, finance, and marketing.

1980-1988 Education consultant: Goodyear Publishing Co.; John Wiley & Sons, Inc.; McGraw-Hill Book Co.

1990-1992 CFO SEMINARS CORPORATION
 Co-founder and partner. A joint venture with the CFO Magazine - nationwide offering of seminars for financial executives.

1986-1990 Finance Columnist, Bostonia Magazine.

1977-1978 JERUSALEM INSTITUTE OF MANAGEMENT, Jerusalem, Israel, and HARVARD BUSINESS SCHOOL, Boston, MA. Course development for executive development programs and case writing in area of Management Information Systems.

1975-1976 KOOR CHEMICAL WORKS, LTD., Tel-Aviv, Israel
 Senior Economist, Planning and Control Division

1973-1975 URDAN METALLURGICAL WORKS, LTD., Natania, Israel
 Director of management information system and Assistant to the CFO/Comptroller

1969-1970 ISRAELI AIRCRAFT INDUSTRY
 Quality control and measurement methods department

1969 NILI WIRING, INC., Israel
 Production and installation of various metal wire products

1966-1969 MILITARY SERVICE

HONORS

American Bankruptcy Institute's 2017 Book Award for the book: A Practical Guide to Bankruptcy Valuation, 2nd edition, published in March 2017. Award Ceremony: ABI's Annual Meeting, April 22, 2017, Washington, D.C.

"Muni Bonds, Pension Liabilities and Investment Due Diligence." (with B. Orelowitz and S. Mangiero)
Top Ten List-Social Science Research Network, 2014.

Article awarded the Citation of Excellence and the Highest Quality Rating by ANBAR Electronic Index (1999) –
"After Bankruptcy: Can Ugly Ducklings Turn into Swans?" Financial Analysts Journal (with A. Michel and C. McHugh).

The article "Does Business Diversification Affect Performance?" was listed 6th on the list of the "Most Frequently Cited Financial Management Articles" over the previous 25 years (1970-1995).

Won The Boston University School of Management Broderick Prize for excellence in teaching in the year 1982/83.

Won The Boston University School of Management Broderick Prize for excellence in teaching in the year 1984/85.

Nominated for the "Metcalf Award" - the highest teaching honor at Boston University - 1987.

Nominated for the "Metcalf Award" - the highest teaching honor at Boston University - 1991.

Finance/Economics Department nominee for Broderick Prize for excellence in teaching in the year 1980/81.

Finance/Economics Department nominee for Broderick Prize for excellence in teaching in the year 1981/82.

The book The Complete Guide to a Successful Leveraged Buyout selected by two book clubs -Fortune Book Club and MacMillan Executive Book Club.

The article "Japanese Leverage: Myth or Reality?" (Financial Analysts Journal) included as a required reading for the Chartered Financial Analysts Examination, 1987-1990.

Testified before the U.S. House Ways and Means Committee on the issue of takeovers and leveraged buyouts, March 1989.

Expert testimony on "Conflict of Interest Abuses in Commercial Banking Institutions." A report by the United States General Accounting Office to The Subcommittee On Commerce, Consumer and Monetary Affairs, Committee on Government Operations, U.S. House of Representatives, January 1989.

Research methodology and results on deposit insurance included in the report "Deposit Insurance In A Changing Environment", submitted by the Federal Deposit Insurance Corporation (FDIC) to Committee on Banking, Housing and Urban Affairs (U.S. Senate) and Committee on Banking, Finance and Urban Affairs (U.S. House of Representatives), April, 1983.

Invited Speaker - Universidad Peruana de Ciencias Aplicadas - Financial Tools Applied to Marketing Decisions - Lima, Peru, April 10, 1996.

American Bankruptcy Institute Journal Editorial Board, 1997 – 2017.

Steering Committee - Universidad Peruana de Ciencias Aplicadas, Lima, Peru, 1997 – present.

GOVERNMENT RELATIONS

Testified before the U.S. House Ways and Means Committee on the issue of takeovers and leveraged buyouts, March 1989.

Expert testimony on "Conflict of Interest Abuses in Commercial Banking Institutions." A report by the United States General Accounting Office to The Subcommittee On Commerce, Consumer and Monetary Affairs, Committee on Government Operations, U.S. House of Representatives, January 1989.

Research methodology and results on deposit insurance included in the report "Deposit Insurance In A Changing Environment", submitted by the Federal Deposit Insurance Corporation (FDIC) to Committee on Banking, Housing and Urban Affairs (U.S. Senate) and Committee on Banking, Finance and Urban Affairs (U.S. House of Representatives), April, 1983.

PUBLICATIONS

- (Book) A Practical Guide to Bankruptcy Valuation (with R. Reilly). 2nd edition, American Bankruptcy Institute, 2017.
- (Book) A Practical Guide to Bankruptcy Valuation (with R. Reilly). American Bankruptcy Institute, 2013.
- (Book) The National Directory of Public Employee Retirement Systems - 1999 (ed. with A. Michel). Institute of Chartered Pension Professionals.
- (Book) The National Directory of Public Employee Retirement Systems - 1998 (ed. with A. Michel). Institute of Chartered Pension Professionals.
- (Book) The National Directory of Public Employee Retirement Systems - 1997 (ed. with A. Michel). Institute of Chartered Pension Professionals.
- (Book) The National Directory of Public Employee Retirement Systems - 1996 (ed. with A. Michel). Institute of Chartered Pension Professionals.
- (Book) Finance and Accounting for Lawyers (with A. Michel). Legal Financial Press, 1996.
- (Book) The Complete Guide to A Successful Leveraged Buyout (with A. Michel). Dow Jones-Irwin, 1988.
- (Book) Takeover Madness: Corporate America Fights Back (with A. Michel). John Wiley & Sons, 1986.

"Demystifying a Company's Systematic Risk." (with B. Orelowitz), American Bankruptcy Institute Journal, February 2022.

"The Cost-of-Capital Dilemma: Valuation During Abnormal Market Conditions." (with B. Orelowitz and P. Dionne), American Bankruptcy Institute Journal, April 2021.

"The Airline Industry and Covid-19: Saving for a Rainy Day." (with B. Orelowitz), American Bankruptcy Institute Journal, May 2020.

"Do Security Breaches Matter? The Shareholder Puzzle." (with A. Michel and J. Oded), European Financial Management Journal, Vol.26 Issue: 2, pp. 288-315, March 2020.

“Institutional Investors and Firm Performance: Evidence from IPOs.” (with A. Michel and J. Oded), North American Journal of Economics and Finance, Vol.51, January 2020.

“What Determines Institutional Investors’ Holdings in IPO Firms?” (with A. Michel and J. Oded), International Review of Finance, Forthcoming, accepted for publication in 2020.

“Behavioral Characteristics of IPO Underpricing.” (with A. Michel and J. Oded), Venezia, I. (Ed.) Behavioral Finance: How Near is the End? World Scientific Publishers, 2020.

“Credibility Test: Management Projections vs. Market Evidence.” (with P. Dionne), American Bankruptcy Institute Journal, August 2019.

“Use and Abuse of Quantitative Bankruptcy Prediction Models.” (with P. Dionne), American Bankruptcy Institute Journal, December 2018.

“10 Common Causes of Distress.” (with B. Orelowitz), American Bankruptcy Institute Journal, July 2018.

“The Role of the Corporate Finance Expert in Debt-Equity Litigation: Lessons from ScottishPower (Part II).” (with D. Plastino and P. Dionne), Journal of Taxation, April 2018.

“The Role of the Corporate Finance Expert in Debt-Equity Litigation: Lessons from ScottishPower (Part I).” (with D. Plastino and P. Dionne), Journal of Taxation, March 2018.

“Key Valuation Issues in Distressed Investing.” (with B. Orelowitz), Journal of Corporate Renewal, January/February 2018.

“Understanding Retail Bankruptcy.” (with B. Orelowitz), American Bankruptcy Institute Journal, November 2017.

“Warning Signs of Financial Distress.” (with E. Altman), American Bankruptcy Institute Journal, November 2016.

“Judging Fraud: The Case of Relying on Wrong Information.” (with B. Orelowitz and E. Weisfelner), American Bankruptcy Institute Journal, August 2016.

“The Predictable Unpredictability of Global Oil Prices, and What It Means for Professionals.” (with D. Plastino and P. Dionne), American Bankruptcy Institute Journal, April 2016.

“Index Correlation: Implications for Asset Allocation.” (with J. Oded and A. Michel), Managerial Finance, Vol.41 Issue: 11, pp. 1236-1256, 2015.

“Have We Learned from Previous Stock Meltdowns?” (with A. Michel), American Bankruptcy Institute Journal, November 2015.

“Contingent Liabilities: GAAP vs. Valuation Perspective.” (with B. Orelowitz), American Bankruptcy Institute Journal, August 2015.

“Operating Leverage: The Often-Overlooked Risk Factor.” (with D. Plastino), American Bankruptcy Institute Journal, April 2015.

“Decision Trees for Decision-Makers.” (with D. Plastino), American Bankruptcy Institute Journal, February 2015.

“Capital Adequacy and the Debt-Refinancing Assumption.” (with P. D’Arezzo and D. Plastino), American Bankruptcy Institute Journal, December 2014.

“Role of Uncertainty in Determining a Distressed Company’s Fate.” (with B. Orelowitz), American Bankruptcy Institute Journal, October 2014.

“Muni Bonds, Pension Liabilities and Investment Due Diligence.” (with B. Orelowitz and Susan Mangiero), American Bankruptcy Institute Journal, July 2014.

“FMV and Going-Concern Value Compared: An Expert’s Perspective.” (with B. Orelowitz), American Bankruptcy Institute Journal, April 2014.

“Ownership Structure and Performance: Evidence from the Public Float in IPOs.” (with Jacob Oded and Allen Michel), Journal of Banking and Finance, January 2014.

“Buyouts Gone Bad: Common Themes in Failed Leveraged Transactions.” (with David Plastino and Paul D’Arezzo), American Bankruptcy Institute Journal, December 2013.

“Cornerstone of Financial Decision-Making: Credible Projections.” (with B. Orelowitz), American Bankruptcy Institute Journal, October 2013.

“The Valuation of NOLs in a Bankruptcy Reorganization.” (with B. Orelowitz), American Bankruptcy Institute Journal, July 2013.

“Quantifying the Impact of Fraud: Application of the Guideline Publicly Traded Company Approach.” (with B. Orelowitz), American Bankruptcy Institute Journal, April 2013.

“A Primer to Cost of Capital for the Distressed/Bankrupt Company.” (with P. D’Arezzo), American Bankruptcy Institute Journal, February 2013.

“Soft Capital, Hard Times: Distressed Professional and Financial Services Firms.” (with D. Plastino), American Bankruptcy Institute Journal, October 2012.

“Case Studies in Corporate Bankruptcy Valuation.” (with B. Orelowitz), American Bankruptcy Institute Journal, August 2012.

“Debtor Beware: Double-Edged Sword of Financial Leverage.” (with D. Plastino), American Bankruptcy Institute Journal, April 2012.

“Bankruptcy Valuation Hearings: As Highly Contested as Ever.” (with B. Orelowitz), American Bankruptcy Institute Journal, November 2011.

“To Be or Not to Be Confirmed: A Debtor’s Post-Reorganization Viability.” (with P. D’Arezzo), American Bankruptcy Institute Journal, December/January 2011.

“Not All Buybacks Are Created Equal: The Case of Accelerated Stock Repurchases.” (with A. Michel and J. Oded), Financial Analysts Journal, Volume 66, No. 6, November/December 2010.

“Comparable Company Valuation Methodology: Details Often Overlooked.” (with B. Orelowitz and M. Marcus), American Bankruptcy Institute Journal, April 2010.

“Playing the Market (Approach): Going Beyond the DCF Valuation Methodology.” (with D. Plastino and P. D’Arezzo), American Bankruptcy Institute Journal, December/January 2010.

“A Review of Fairness Opinions and Proxy Statements: 2005-2006.” (with S. Kempainen), Journal of Applied Finance, Volume 19, No. 1&2, 2009.

“Earnings: Quality vs. Quantity.” (with D. Plastino and P. D’Arezzo), American Bankruptcy Institute Journal, April 2009.

“Financial Crisis of 2008 and Preliminary Framework for Analyzing Financially-distressed Firms.” (with D. Plastino and P. D’Arezzo), American Bankruptcy Institute Journal, December/January 2009.

“Company Valuation: How Good is Goodwill?” (with D. Plastino and P. D’Arezzo), American Bankruptcy Institute Journal, April 2008.

“Liquidity and Control Valuation Discounts/Premiums and the Bankrupt Firm.” (with D. Plastino and P. D’Arezzo), American Bankruptcy Institute Journal, December/January 2008.

“Capturing the Complexity: The Importance of Financial Analysis in an Asbestos Bankruptcy Filing.” (with H. Tullar). American Bankruptcy Institute Journal. May 2007.

“Had the Information Been Known: Lessons from Enron’s Insolvency.” (with A. Michel and D. Plastino), American Bankruptcy Institute Journal, December/January 2007.

“Understanding Fair Market Value in Bankruptcy.” (with A. Michel and S. Kempainen), American Bankruptcy Institute Journal, May 2006.

“The *Mirant* Valuation Saga: Epic Battle of Experts.” (with A. Michel, B. Orelowitz, and M. Marcus), American Bankruptcy Institute Journal, December/January 2006.

“Fraud-on-the-market Theory: Is a Market Efficient?” (with A. Michel and S. Feinstein), American Bankruptcy Institute Journal, May 2005.

“Fiduciary Responsibility: The Case of Defined Contribution Plans.” (with A. Michel), American Bankruptcy Institute Journal, December/January 2005.

“Valuation of Credit Guarantees: An Application of Economic Theory in Litigation.” (with S. Feinstein and A. Michel), Journal of Forensic Economics, Winter 2004.

“Fair Market Value and Built-in Capital Gains: Economic Rationale Should Prevail.” (with C. Grimm and A. Michel), American Bankruptcy Institute Journal, May 2004.

“Solvency Analysis: A Primer on Applying Discounted Cash Flow.” (with A. Michel), American Bankruptcy Institute Journal, December/January 2004. (Reprinted in Bankruptcy Law Section Newsletter, Boston Bar Association, April 2004.)

“An Analysis of the Relevance and Bias of Analyst Recommendations: The Case of Bankrupt Companies.” (with A. Michel), The Financier, Vol. 10, Nos. 1-4 2003.

“The Preference Claims Puzzle: Wealth Transfer Implications of Controversial Judicial Preference Rulings.” (with A. Michel and H. Tullar). Litigation Economics Review, Vol. 6, No. 1, 2003.

“Bias in Analyst Recommendations: The Curious Case of Bankrupt Companies.” (with A. Michel), American Bankruptcy Institute Journal, June 2003.

“What Drives Firms to Distress? Seven Common Causal Factors.” (with A. Michel), American Bankruptcy Institute Journal, December/January 2003.

“Deepening Insolvency: Plaintiff vs. Defendant.” (with A. Michel), American Bankruptcy Institute Journal, May 2002.

"Does the Stock Market Differentiate Winners from Losers? The Case of One-vs. Two-Time Bankruptcy Filers." (with A. Michel and C. McHugh), The Financier, Vol. 9, Nos. 1-4 2002.

"Understanding Insurance Companies in Financial Distress." (with A. Michel), American Bankruptcy Institute Journal, December/January 2002.

"Managing Your Expert for a Successful Outcome: The 10 Commandments." (with A. Michel), American Bankruptcy Institute Journal, May 2001.

"The Paradox of Corporate Bankruptcy in a Robust Economy." (with A. Michel), American Bankruptcy Institute Journal, November 2000.

"Post-Bankruptcy Operating Performance: Two-Time Filers vs. One-Time Filers." (with A. Michel and C. McHugh), American Bankruptcy Institute Journal, March 2000.

"Chapter 22s: Lessons of Two-Time Bankruptcies." (with A. Michel and C. McHugh), The Financier, Summer/Autumn 1999.

"Protecting Future Product Liability Claimants." (with A. Michel and S. Feinstein), American Bankruptcy Institute Journal, December/January 1999.

"Valuing the Financially Distressed Firm." (with A. Michel), American Bankruptcy Institute Journal, April 1999.

"Post-bankruptcy Results: Is There Life After Death?" (with A. Michel and C. McHugh), American Bankruptcy Institute Journal, December/January 1999.

"Emerging from Bankruptcy: Can an Ugly Duckling Turn into a Swan?" (with A. Michel and C. McHugh), Financial Analysts Journal, May/June 1998. (Reprinted in The Machinery & Technical Specialties Journal, March 1999.)

"Creating Value in the Distressed Firm." (with A. Michel), American Bankruptcy Institute Journal, May 1998.

"Value Creation: Lessons from Failed Acquisitions." (with A. Michel), American Bankruptcy Institute Journal, November 1997.

"Creating Value Through EVA: Myth or Reality?" (with A. Michel and P. Leroy), The Journal of Strategy and Business, Fourth Quarter 1997.

"Lessons from Failed Corporate Marriages: Transactional Myopia and Organizational Overconfidence." (with A. Michel), Strategy and Business, Fourth Quarter, 1996.

"Corporate Acquisitions in the 1990s: Paying Attention to Information Technology" (with N. Pliskin, M. Buck-Lew and C. Wardle), Journal of General Management, Winter 1992.

"A Survival Kit for Recovering Funds from Junk Bond Defaults." (With A. Michel and G. Landy), Financial Analysts Journal, Fall 1992.

"Valuation of Damage Claims: An Application of Corporate Finance." (with A. Michel), Journal of Business Finance and Accounting, April 1992.

"Protecting Confidential Information: What Works?" (with A. Michel and S. Hamid), Commercial Lending Review, Spring 1992.

"Fraudulent Conveyance in Leveraged Buyouts: The Financial Issues" (With A. Michel), Cornerstone Research, February 1992. (Reprinted in The Corporate Growth Report, March 1992.)

"RJR Nabisco: A Case Analysis of a Complex Leveraged Buyout" (with A. Michel). Financial Analysts Journal, September/October, 1991.

"An Evaluation of Investment Banker Acquisition Advice: The Shareholders' Perspective" (with A. Michel and You-Tay Lee). Financial Management, Summer 1991.

"The Foreign Acquirer Bonanza: Myth or Reality?" (With A. Michel and D. McClain). Journal of Business Finance & Accounting, April 1991.

"Innovations in Corporate Finance: Convertible Exchangeable Preferred Stock" Butterworth's Journal of International Banking and Financial Law, July 1990.

"The Application of Corporate Finance to the Courtroom: The Case of Damage Valuation - A Reply" (with A. Michel). Financial Management Letters, Spring 1990.

"What Every LBO Lender Must Know About Valuation" (with A. Michel). Commercial Lending Review, Spring 1990.

"The LBO Nightmare: Fraudulent Conveyance Risk" (with A. Michel). Financial Analysts Journal, March-April, 1990.

"The Risk/Return Paradox Revisited" (with A. Michel). Public Administration - Economic and Finance: Current Issues in the North American and Caribbean Countries, edited by E. Ortiz, CIDE/NAEFA, Mexico, 1989.

"Assessing LBO Risk: The Case of Fraudulent Conveyance" (with A. Michel). Financial Management Letters, Winter 1989.

"The Application of Corporate Finance to the Courtroom: The Case of Damage Claim Valuation" (with A. Michel). Financial Management Letters, Autumn 1989.

"Leveraged Buyouts: The Financial Issues" (with A. Michel). Journal of Corporate Finance, Spring 1988.

"Corporate Takeovers: Excess Returns and the Multiple Bidding Phenomena" (with A. Michel). Journal of Business Finance and Accounting, Summer 1988.

"The Merger Game: Are Acquirers Victims of the Winner's Curse?" (with R. Dickie and A. Michel). Journal of General Management, Summer 1988.

"Trucking Deregulation and Motor-Carrier Performance: The Stockholders' Perspective" (with A. Michel). Financial Review, May 1987.

"Multinational Corporations vs. Domestic Corporations: Financial Performance and Characteristics" (with A. Michel), Journal of International Business Studies, Spring 1987.

"Airline Deregulation and the Probability of Air-Carrier Insolvency" (with A. Michel), Financial Review, February 1987.

"Country and Industry Influence on Dividend Policy: Evidence from Japan and the U.S." (with A. Michel), Journal of Business Finance and Accounting, Autumn 1986.

"Are Multinational Corporations Safer?" Journal of International Business Studies, Vol. 17(1), Spring 1986.

"Industry Influence on Pension Funding" (with A. Michel), Journal of Portfolio Management, Spring 1986.

"The Proprietary Hospital Industry: A Financial Analysis 1972- 1982" (with A. Michel and J. Daley), Social Science and Medicine, Vol. 21, 1985.

"International Equity Market and the Investment Horizon" Journal of Portfolio Management, February 1985.

"Does Business Diversification Affect Performance?" (with A. Michel). Financial Management, Winter 1985.

"Japanese Leverage: Myth or Reality?" (with A. Michel). Financial Analysts Journal, July/August 1985.

"Are Conglomerates Safer?" (with A. Michel). Research in Finance, edited by H. Levy, JAI Press, Inc., Greenwich, CT., 1985.

"Measuring Prospective Probabilities of Insolvency: An Application to the Life Insurance Industry." Journal of Risk and Insurance, March 1985.

"Evaluating Merger Performance" (with A. Michel). California Management Review, Spring 1985.

"The Valuation of FDIC Deposit Insurance Using Option-Pricing Estimates" (with A. Marcus). Journal of Money, Credit and Banking. November 1984. (Reprinted in The Regulation and Supervision of Banks, edited by Maximilian J.B. Hall, Reader in Banking and Financial Regulation, The University of Loughborough, April 2000.)

"Airline Performance Under Deregulation: The Shareholders' Perspective" (with A. Michel). Financial Management, Summer 1984.

"The Relationship Between Accounting Measures and Prospective Probability of Insolvency: An Application to the Banking Industry" (with A. Marcus). Financial Review, February 1984.

BOOK REVIEWS

(Book review of) George J. Benston Financial Services: The Changing Institutions and Government Policy, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1983. Southern Economic Journal, January 1985.

(Book review of) Kallberg, G. and K. Parkinson Current Asset Management, John Wiley & Sons, Inc., 1984 Journal of Finance, June 1985.

OTHER PUBLICATIONS

"Analyzing the Insolvent Firm: The Case of Deepening Insolvency" (with A. Michel). Bankruptcy Law Section Newsletter, Boston Bar Association, July 2001.

"Fraudulent Conveyance: The Financial Issues" (with A. Michel). Massachusetts Lawyers Weekly, April 5, 1993.

"A Guide to Corporate Valuation: Gaining Credibility and Avoiding Pitfalls" (with A. Michel). Massachusetts Lawyers Weekly, April 5, 1993.

"Seller Beware: Yesterday's LBO Success May Breed Tomorrow's Legal Nightmares" (with A. Michel). Institutional Investor, December 1990.

"Buying and Selling the American Dream: Advice on Small Business Transactions" (with A. Michel). Bostonia, March/April 1990.

"Takeovers Are Not to Blame" (with A. Michel). Computerworld, Vol. XXIV, No. 11, March 1990.

"Corporate Takeovers Needed In A Healthy, Free Market" (with A. Michel). The Boston Globe, January 16, 1990.

"Takeovers: Corporate Hemlock or the Key to a Productive Corporate America?" (with A. Michel). CFO Magazine, January 1990.

"The Lessons of Congress: Corporate America Should Listen and Take Notice" (with A. Michel). Bostonia, November/December, 1989.

"Survival of the Fittest: Do Corporate Mergers Weed Out Underachievers?" (with A. Michel). Bostonia, September/October, 1989.

"Europe 1992: Without Clear Policies, Corporate America Could Be Shut Out" (with A. Michel). Bostonia, July/August, 1989.

"Europe's Economic Walls: Breaking Them Down Will Require Cooperation and Compromise" (with A. Michel). Bostonia, May/June 1989.

"Our Banana Republic: If We Continue as a Service Based Economy, We Are a Nation at Risk" (with A. Michel). Bostonia, March/April 1989.

"Wall Street Fallout: The Stock Market Isn't Decidedly Republican or Democratic" (with A. Michel). Bostonia, January/February, 1989.

"OPEC: Tiger or Paper Tiger?" (with A. Michel). Bostonia, November/December, 1988.

"Bearish, Bullish, or Foolish? An Investment Guide for the Perplexed" (with A. Michel). Bostonia, September/October 1988.

"Corporate Takeovers Aren't Just a Feeding Frenzy" (with A. Michel). Bostonia, July/August 1988.

"The Leveraged Buyout Market" (with A. Michel). The Robb Report, July 1988.

"Poison Pills Are Tough to Swallow" (with A. Michel). Bostonia, May/June 1988.

"Are Airline Incentives Just Pie in the Sky" (with A. Michel). Bostonia, March/April 1988.

"Bonds: The 'Safe' Alternative" (with A. Michel). Bostonia, January/February 1988.

"Free Enterprise Under Siege" (with A. Michel). Bostonia, November/December 1988.

"Time Sharing's Promises, Prizes, and Pitfalls" (with A. Michel). Bostonia, September/ October 1987.

"Massachusetts Capitalism: Many Shares, No Votes" (with A. Michel). The Boston Globe, July 28, 1987.

"Credit Bureaus: Who's Rating Whom?" (with A. Michel). Bostonia, June/July, 1987.

"The Blackmailing of Corporate America" (with A. Michel). Bostonia, April/May, 1987.

"Do the Massachusetts' Blue Sky Laws Protect Investors?" (with A. Michel). Bostonia, February/March, 1987.

"Witches, Computers and Stock Market Volatility" (with A. Michel), Bostonia, December/January, 1987.

"In Banking the Word is Revolution, not Evolution" (with A. Michel). Bostonia, October/November, 1986.

"Takeover Madness" (with A. Michel). B.U. Today, Vol. 3 No. 4, September 4, 1986.

"Battling the Hostile Attack: Can the Shareholder Win?" (with A. Michel). Cornell Enterprise, Spring 1986.

"Battling Corporate Raiders" (with A. Michel). Boston Business Journal, June 23, 1986.

"Turning a Profit from Takeover Attempts" (with A. Michel). Lead editorial article, The Wall Street Journal, June 4, 1986.

Quoted in numerous nonacademic papers/magazines, including:

Akron Beacon Journal	Knight Ridder Tribune Business News
Associated Press	The Lexington Herald Leader (KY)
Belleville News (IL)	London Financial Times
Boston Business Journal	Los Angeles Times
The Boston Globe	New England Times
The Boston Herald	New York Magazine
Business Week	The Orange County Register
Business Week Careers	The Orlando Sentinel
Christian Science Monitor	The Pantagraph Bloomington (IL)
The Cincinnati Post	The Patriot Ledger (Quincy, MA)
Dallas Morning News	The San Francisco Chronicle
The Economic Time (India)	Schenectady Gazette (NY)
Employment Review	Seattle Post - Intelligencer
The Financial News	Standard Times
The Harrisburg Patriot	The Star - Ledger (NJ)
Hartford Courant	Telegram & Gazette (Worcester, MA)
Houston Chronicle	The Tulsa Tribune
INC. Magazine	The Wall Street Journal
Industry Week	Worcester Business Journal
The Journal Record	Worcester Telegram & Gazette

WORKS UNDER JOURNAL REVIEW/IN PROGRESS

BOOKS IN PROGRESS

The Complete Guide to Corporate Valuation (with B. Orelowitz and S. Kempainen)

T.V./RADIO PROGRAMS

(TV) "Airline Deregulation." TV-4's "Live on 4", Boston, January 7, 1986.

(Radio) "Takeover Madness." A one hour talk show, WKOX-1200, Framingham, MA, June 10, 1986.

(Radio) "Takeover Defenses." Lawrence Ingram's Highlite, WNWK-FM, New York City, June 11, 1986.

(TV) "Takeover Madness." Financial News Network (FNN), June 17, 1986.

(TV) "The Case of People Express." TV-5, Boston, June 23, 1986.

(Radio) "Takeover Defenses." AMEX Business Talk, aired by a syndication of 10 different radio stations, New York City, June-July, 1986.

(Radio) "The Stock Market." WMRE AM 1510, Boston, September 15, 1986.

(Radio) "The Tax Reform." WMRE AM 1510, Boston, September 29, 1986.

- (TV) "The Gillette-Revlon Takeover Battle." TV-5, Boston, November 16, 1986.
- (TV) "The Gillette-Revlon Takeover Battle." TV-5, Boston, November 19, 1986.
- (Radio) "The Gillette-Revlon Takeover Battle." WBUR-90.9 FM, Boston, November 20, 1986.
- (Radio) "The Gillette-Revlon Takeover Battle." WMJX-106.7 FM, Boston, November 24, 1986.
- (TV) "The Gillette-Revlon Takeover Battle." TV-5, Boston, November 24, 1986.
- (TV) "Continental Airline Pricing Strategy." TV-5, Boston, January 29, 1987.
- (Radio) "Continental Airline Pricing Strategy." WBUR-90.9 FM, Boston, February 2, 1987.
- (Radio) "Abuses of Inside Information on Wall Street." WMJX-106.7 FM, Boston, February 22, 1987.
- (Radio) "The Gillette-Revlon Takeover Battle (Round II)." WMJX-106.7 FM, Boston, June 19, 1987.
- (Radio) "The Gillette-Revlon Takeover Battle (Round II)." WBUR-90.9 FM, Boston, June 19, 1987.
- (TV) "Eastern Airline's Financial Strategy." TV-5, Boston, July 30, 1987.
- (TV) "A Profitability Analysis of the Airline Industry." TV-4, Boston, August 1, 1987.
- (Radio) "The Shearson-E.F. Hutton Merger." Barry Gray's Talk Show, WMCA, New York City, December 3, 1987.
- (Radio) "The Dart Group-Stop & Shop Takeover Battle." WBUR-90.9 FM, Boston January 22, 1988.
- (Radio) "The Federated Department Stores - Campeau-Macy's Takeover Battle." WBZ-1030 AM, Boston, March 1, 1988.
- (Radio) "The Federated Department Stores - Campeau-Macy's Takeover Battle." WBZ-1030 AM, Boston, March 30, 1988.
- (Radio) "The Gillette-Coniston Partners Proxy Fight." WFCR-88.5 FM, Amherst, April 20, 1988.
- (TV) "Eastern Airline's Financial Strategy." TV-7, Boston, July 15, 1988.
- (TV) "The Pillsbury-Grand Metropolitan Takeover Battle." TV-7, Boston, December 19, 1988.
- (TV) "The Financial Scandal Involving A Dean Witter's Broker." TV-5, Boston, February 14, 1989.
- (Radio) "The Eastern Airline Strike." WEEI-590, Boston, March 3-4, 1989.
- (TV) "The Eastern Airline Strike." TV-56, Boston, March 5, 1989.
- (TV) "The Eastern Airline Strike." TV-4, Boston, March 6, 1989.
- (Radio) "The Eastern Airline Strike." WEEI-590, Boston, March 8, 1989.
- (TV) "The Eastern Airline Strike." TV-5, Boston, March 9, 1989.
- (TV) "Peter Ueberroth's Attempt To Buy Eastern." TV-4, Boston, April 11, 1989.
- (TV) "The October 1989 Stock Market Crash." TV-7, Boston, October 16, 1989.

- (TV) "The Financial Condition of Drexel Burnham Lambert." WQTV-68, Boston, February 12, 1990.
- (TV) "The Recent Economic Indicators: Good News or Bad News?" TV-5, February 21, 1990.
- (Radio) "The Norton-BTR Takeover Battle." WBZ-AM 1030, April 20-26, 1990.
- (TV) "The Acquisition of the Foxboro Corporation". TV-5, June 26, 1990.
- (TV) "The Divestiture of Tobacco Companies' Stocks". PBS-The Nightly Business Report, July 5, 1990.
- (TV) "The Airline Industry Profitability and Fuel Prices". TV-4, November 16, 1990.
- (TV) "The FDIC Guideline for Deposits In Failed Banks". TV-4, Boston, January 7, 1991.
- (TV) "The FDIC Handling of The Bank of New England Bankruptcy". TV-4, Boston, January 8, 1991
- (TV) "Pan Am's Filing For Bankruptcy". TV-4, Boston, January 8, 1991.
- (TV) "The Airline Industry's Fare War", TV-56, April 10, 1992.
- (TV) "Airline Deregulation: Does It Work," TV-56, April 23, 1992.
- (TV) "Talk of New England: The Merger/LBO Mania in Perspective". New England Cable News, May 24, 1992.
- (TV) "The Fare War In the Airline Industry," New England Cable News, May 11, 1993.
- (TV) "The Cruise Line Industry," New England Cable News, March 16, 1994.
- (TV) "The Media Mergers", TV-5, July 31, 1995.
- (TV) "The Media Mergers", TV-68, August 1, 1995.
- (TV) "Analysis of U.S. Air Buyout Possibility", New England Cable News, October 3, 1995.
- (TV) "The Bank of Boston - Baybanks Merger", TV-68, December 13, 1995.
- (TV) "Analysis of Discount Air Carriers," New England Cable News, May 15, 1996.
- (TV) "The Business Implications of TWA's Crash," New England Cable News, July 18, 1996.
- (Radio) "Trends in Business Education," WBUR 90.9, July 25, 1996.
- (Radio) "The FTC Intervention in the Staples-Office Depot Merger," WBZ-AM 1030, March 10, 1997.
- (Radio) "The Staples-Office Depot Merger," WBZ-AM 1030, July 1, 1997.
- (Radio) "The Citicorp-Travelers Merger," National Public Radio (NPR), April 7, 1998.
- (TV) "Logan Airport Flight Delays," New England Cable News, September 13, 1999.
- (TV) "MCI Worldcom Acquisition of Sprint," TV-4, October 5, 1999.
- (TV) "Potential Expansion of Logan Airport," New England Cable News, March 20, 2000.
- (TV) "Possible US Air Flight Attendant Strike," New England Cable News, March 22, 2000.

- (TV) "Analysis of the Failed Microsoft Settlement," TV-4's "Live on 4", TV-4, Boston, April 2, 2000.
- (TV) "Analysis of the Proposed Merger of United Airlines and US Airways," New England Cable News, May 24, 2000.
- (TV) "Financial Distress of Converse, Inc.," New England Cable News, October 18, 2000.
- (TV) "Impact of Pilot Slowdown on Delta Airlines," New England Cable News, December 5, 2000.
- (TV) "Economic Impact of the September 11th Terrorist Attacks on the Airline Industry," New England Cable News, September 13, 2001.
- (TV) "Economic Impact of the September 11th Terrorist Attacks on the Airline Industry," New England Cable News, September 17, 2001.
- (Radio) "Airlines Versus Other Competing Modes of Transportation," WRKO-AM 680, September 25, 2001.
- (TV) "Airlines Versus Other Competing Modes of Transportation," New England Cable News, September 26, 2001.
- (TV) "Analysis of New Airport Security Proposals," New England Cable News, November 1, 2001.
- (TV) "Business Impact of Crash of American Airlines Flight 587 on Airline Industry," New England Cable News, November 12, 2001.
- (TV) "Analysis of New Federal Airport Security Proposals," New England Cable News, November 13, 2001.
- (TV) "Analysis of Amtrak Proposed Service Cuts," New England Cable News, February 1, 2002.
- (TV) "Analysis of Amtrak Reform Council Proposals," New England Cable News, February 7, 2002.
- (TV) "Analysis of New MassPort Chief Executive Officer," New England Cable News, April 11, 2002.
- (TV) "Analysis of Raytheon's Financial Performance," New England Cable News, June 18, 2002.
- (TV) "Analysis of Federal Airport Security," New England Cable News, November 19, 2002.
- (TV) "Analysis of Possible United Airlines Bankruptcy," New England Business Day. New England Cable News, December 5, 2002.
- (TV) "Analysis of United Airlines Bankruptcy Filing," New England Cable News, December 9, 2002.
- (TV) "Impact of Iraq War on Massachusetts Defense Companies," New England Cable News, March 25, 2003.
- (TV) "Impact of Iraq War on U.S. Airline Industry/Emergence of U.S. Air from Bankruptcy," New England Cable News, April 1, 2003.
- (TV) "An Analysis of the International Air Travel Industry," New England Cable News, May 15, 2003.
- (TV) "An Analysis of the Proposed Layoffs at American Airlines," New England Cable News, July 2, 2003.
- (TV) "An Analysis of Federal Subsidies for Amtrak," New England Cable News, October 6, 2003.
- (TV) "Analysis of Jet Blue's New Boston Service," Greater Boston, WGBH, January 15, 2004.
- (TV) "Analysis of U.S. Airways Bankruptcy," New England Cable News, September 13, 2004.

(TV) "Analysis of Airbus Super Jumbo and Competition with Boeing." New England Cable News, January 18, 2005.

(TV) "Influence of London Terrorist Attacks on Financial Markets." Channel 7, July 8, 2005.

(Radio) "Analysis of Gillette's shareholders' approval of the Gillette-P&G Merger Proposal." WBUR, July 12, 2005.

(Radio) "Analysis of Adidas-Reebok Merger." WBUR, August 3, 2005.

(TV) "Financial Condition of Delta and Implications for Logan Airport's Terminal A." WGBH, August 11, 2005.

(TV) "Analysis of Northwest and Delta Airlines Bankruptcy Filings." Business Day. New England Cable News, Boston, September 14, 2005

(TV) "Verizon Communications Plan to Cut Managers' Pensions." Business Day, New England Cable News, Boston December 6, 2005.

(TV) "Boston Scientific's Revised Bid for Guidant." New England Cable News, January 17, 2006.

(TV) "An Analysis of U.S. Airways Group's Bid to Acquire Delta Airlines." New England Cable News. November 15, 2006.

(TV) "The Sale of GE's Plastics Division to Saudi Arabia's Saudi Basic Industries." New England Cable News, May 18, 2007.

(TV) "Analysis of Virgin America (new airline)." New England Cable News, July 19, 2007.

(TV) "Analysis of Airports' Prospective Challenges." New England Cable News, November 21, 2007.

(TV) "Analysis of Merger Between Anheuser-Busch and InBev." WCBV, July 14, 2008.

(TV) "Analysis of United/Continental Merger." New England Cable News, April 30, 2010.

(TV) "United customers face delays from grounded Boeing 757s." New England Cable News, February 16, 2011.

(TV) "Partisan Dispute to Partially Shut Down FAA." WCVB Channel 5 News, July 22, 2011.

(TV) "Facebook Planned IPO." Fox News, November 29, 2011.

(TV) "The Potential Consequences of Boeing 787 Dreamliners' Problems." New England Cable News, January 7, 2013.

(TV) "Analysis of the American Airlines-U.S. Air Merger." New England Cable News, November 12, 2013.

(TV) "U.S. Airport Safety-Re: Belgium Attack." WCVB-TV5, Boston, March 23, 2016.

(TV) "Maintained Enhanced Security at Logan Airport After Istanbul Attack." New England Cable News, June 29, 2016.

(TV) "Perspectives on the Stock Market." Channel 7, CBS Boston, February 5, 2018.

(TV) "Perspectives on the Stock Market." Channel 25, FOX Boston, February 6, 2018.

CASES ON TAKEOVER DEFENSES

"T. Boone Pickens Plays Pac-Man" Mesa Petroleum vs. Cities Services

"Corporate World War III" Bendix vs. Martin Marietta

"Movies, Vodka, and Fried Chicken - Pac Man Entertainment" General Cinema vs. Heublein

"The Halloween Surprise: Mobil's Trick or Treat" Mobil vs. Marathon

"The Carriage Trade Defense: Racketeering Charges and Lock-Ups" Carl Icahn vs. Marshall Field

"The Treasury Lock-Up: Putting the Aggressor in Handcuffs" Ampco-Pittsburgh vs. Buffalo Forge

"It All Started with 'Young Lady, Everything Has a Price'" Western Pacific Industries vs. Cone Mills

"The Bass Family, the Belzbergs, and a Surprise Guest" The Bass Brothers and the Belzbergs vs. Suburban Propane

"Is the Winner a Victim of 'The Winner's Curse'?" Williams Cos. vs. Northwest Energy

"T. Boone Pickens Strikes Again: A Self-Tender Christmas Present" Mesa Petroleum vs. General American Oil

"Battling the Posner Attack" SEPCO vs. Graniteville

"My Grand Plan Is to Stay Out of Trouble" Coastal Corp. vs. Texas Gas Resources

"While the San Francisco 49ers Fought Their Way to a Superbowl Victory, A Crown Jewel War Was Kicked Off" Whittaker vs. Brunswick

"Marvin Is Burning the House Down: A Fatman Defense" Gearhart Industries vs. Smith International

"King of Spirits and Queen of Minerals: An All-Canadian Scorched Earth War" Joseph E. Seagram & Sons vs. St. Joe Minerals

"A New Course in the Curriculum: 'How to Bake A Poison Cake'" National Education vs. Bell & Howell

"The 'Dallas' Stage: Oil Barons, Boardroom Backbiting, and Courtroom Drama" Tesoro Petroleum vs. Enstar

"From Woodrow Wilson to Nancy Reagan: The China-Gate and the Poison Pill" Brown Foreman vs. Lenox

"The Great Textile Battle: Will Carl Icahn Sew Up Dan River?" Carl Icahn vs. Dan River

"The Grumman Pension Fund Dilemma: LTV or Loyalty" LTV vs. Grumman

"The Unfriendly Skies" Texas International Airlines vs. Continental Airlines

"The T. Boone Pickens Philosophy: The Most Fertile Oil Field Is the Floor of the New York Stock Exchange" Mesa Petroleum vs. Gulf Oil

"Irwin Jacobs' Tavern: Everything You Ever Wanted in A Beer, and More" Irwin Jacobs vs. Pabst Brewing

"What Did Odysseus Say Returning from Troy? 'You're Going to Like Us, TWA'" Odyssey Partners vs. Trans World Corporation

CASES ON LEVERAGED BUYOUTS

"Metromedia - King Kluge's Golden Touch"

"ARA Services - A Defensive LBO?"

"Shoe Corporation of America (SCOA) - An LBO Close to the Heart"

"Levi Strauss - 'Thank You Bruce Springsteen'"

"Gibson Greetings - The Granddaddy of LBOs"

"Thatcher Glass - The Price of Failure"

"Brentano's - Trimming Dead Wood"

"Macy's: Shopping for an LBO"

"Dr. Pepper's Battleground: The Cola Wars and the Bidding Battles"

"How Sweet Is Holly Sugar?"

"Mary Kay's Cosmetic: Going Private"

"The Battle for Storer: Coniston vs. KKR"

"A Pantry Raid at Revlon"

"Gambling for Jobs: The Wierton Steel ESOP Leveraged Buyout"

"The Dan River ESOP: A Product of Carl Icahn's 'Scare 'Em Strategy'"

"The Sharks and the Blue Bell ESOP: Playing in the Big Leagues with the Bass Brothers and the Belzbergs"

CASES IN MANAGEMENT INFORMATION SYSTEMS

Jointly financed by the Jerusalem Institute of Management and Harvard Business School:

- Rim-Jerusalem Furniture Ltd.
- Ha'retz Daily Newspaper Ltd.
- Makhteshim-MIS
- Isasbest

A SELECT LIST OF PRESENTATIONS

"Corporate Valuation: Before, During and Post-Pandemic" Valuation Conference, The American Bankruptcy Institute (ABI), Ritz-Carlton, New Orleans, LA, May 2, 2023.

"The Role of the Financial Expert in Bankruptcy Litigation" Boston Bar Association, October 18, 2021.

“Chesapeake Case Study” Valuation Conference (Valcon 2021), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA), Virtual, May 12, 2021.

“The Cost of Equity: How Much Do You Want It to Be?” Valuation Conference (VALCON 2020: How to Flex When in Flux), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA), Four Seasons, Las Vegas, Nevada, February 27, 2020.

“Understanding a Company’s True Financial Health” Mayer Brown LLP, New York, NY, February 11, 2020.

“Valuing a Privately Held Company” Chicago Bar Association, Chicago, IL, February 5, 2020.

“Cross Examining a Valuation Expert” Chicago Bar Association, Chicago, IL, January 30, 2020.

“Cross Examining a Valuation Expert” Massachusetts Bar Association, Boston, MA, January 28, 2020.

“Valuing a Company” Collier School of Management, Tel-Aviv University, Israel, January 8, 2020.

“Cross Examination of a Securities Expert Witness” New York City Bar Association, New York, NY, December 16, 2019.

“Market Evidence in Valuation Disputes” (a panel format) New York City Bankruptcy Litigation Roundtable (sponsored by the Institutional Investor Educational Foundation (IIEF)), New York, NY, October 25, 2019.

“Use and Abuse of Quantitative Bankruptcy Prediction Models” Valuation Conference (VALCON 2019: Cutting-Edge Valuation Solutions), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA), Four Seasons, Las Vegas, Nevada, February 28, 2019.

“Private Equity Dividend Recapitalization: The Case of Retail Distress” Collier School of Management, Tel-Aviv University, Israel, December 26, 2018.

“Director Duties in Restructurings, Bankruptcy Avoidance Action, Cross-Border Insolvency, and Credit Document Loopholes” (a panel format) New York City Bankruptcy Litigation Roundtable (sponsored by the Institutional Investor Educational Foundation (IIEF)), New York, NY, November 30, 2018.

“Understanding Retail Bankruptcy: The Case of Payless ShoeSource Inc.” Valuation Conference (VALCON 2018: Cutting-Edge Valuation Solutions), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA), Four Seasons, Las Vegas, Nevada, May 17, 2018.

“Challenging Valuation Analyses: The Investment Banker’s Perspective” Collier School of Management, Tel-Aviv University, Israel, December 28, 2017.

“Understanding Retail Distress: The Case of Payless ShoeSource” Institutional Investor’s Global Shareholder Activism Conference, New York City, November 30-December 1, 2017.

“Application of Financial Theory to Damages Calculation in the Medical Field” Collier School of Management, Tel-Aviv University, Israel, March 29, 2017.

“Valuation Assumptions: Case Studies of Failed Tests of Reasonableness” Valuation Conference (VALCON 2017: Emerging Valuation Issues in Bankruptcy and Beyond), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA) and the University of Texas School of Law, Four Seasons, Las Vegas, Nevada, March 3, 2017.

“Bankruptcy Ideas Worth Spreading” TED Talk, Winter Leadership Conference, The American Bankruptcy Institute (ABI), Terranea Resort, Rancho Palos Verdes, CA, December 3, 2016.

“Valuation Discounts Under Siege: The Case Against Irrationality” (with B. Orelowitz), LandVest, Boston, MA, November 14, 2016.

“Institutional Investors and Firm Performance: Evidence from IPOs” (with A. Michel and J. Oded) Seminar at Boston University Questrom School of Business, Boston, MA, October 11, 2016.

“E&P Restructurings, Private Equity Sponsors in Chapter 11 Cases, and LBO Transactions” (a panel format) New York City Bankruptcy Litigation Roundtable (sponsored by the Institutional Investor Educational Foundation (IIEF) and Grant and Eisenhofer), New York, NY, October 6, 2016.

“Valuation of Social Media Assets” Valuation Conference (VALCON 2016: Emerging Valuation Issues in Bankruptcy and Beyond), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA) and The University of Texas School of Law, Four Seasons, Las Vegas, Nevada, March 16, 2016.

“Delaware Appraisal Actions Roundtable” Institutional Investor Foundation, New York, NY, February 24, 2016.

“Expert Witness in U.S. Tax Court” The American Law Institute Conference on Handling Tax Controversy: Current Trends in Civil Tax Controversies and Litigation, Washington D.C., October 8-9, 2015.

“Assessment and Quantification of Long-Term, Unliquidated Debt” Valuation Conference (VALCON), The American Bankruptcy Institute (ABI) and Association of Insolvency & Restructuring Advisors (AIRA), Four Seasons, Las Vegas, Nevada, February 25, 2015.

“Valuation Issues in the Bankruptcy Arena” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, December 24, 2014.

“Kerr-McGee and Fraudulent Conveyance Actions, No Action Clauses, In Pari Delicto, and an Update on Detroit and State and Municipal Restructurings” (a panel format) New York City Bankruptcy Litigation Roundtable (sponsored by Grant & Eisenhofer and the Institutional Investor Educational Foundation (IIEF), New York, NY, June 5, 2014.

“A Comparison of the Role of the Financial Expert in Bankruptcy: USA vs. Israel” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, January 5, 2014.

“Cross-Examining a Financial Expert in Valuation Cases: The Key Issues” Sullivan & Worcester, Boston, MA, November 5, 2013.

“Ownership Structure and Performance: Evidence from the Public Float in IPOs” World Finance Conference, Larnaka, Cyprus, July 1, 2013.

“Debt vs. Equity Panel” International Fiscal Association. Boston, MA, April 25, 2013.

“Valuation of the Closely Held Business” Hartford Business Roundtable, Hartford, CT, May 21, 2013.

“Getting Down to Business: The Valuation of Closely Held Companies for Compensation and Employee Separation Purposes” Boston Business Roundtable (sponsored by Murtha Cullina LLP), Boston, May 14, 2013.

“The Role of the Financial Expert in the Bankruptcy Process” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, December 31, 2012.

“Ownership Structure and Performance: Evidence from the Public Float in IPOs” Eastern Finance Association Annual Meeting, Boston, April 13, 2012.

“Bankruptcy: The Good, the Bad and the Ugly” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, January 2, 2012.

“The Role of the Financial Expert in Bankrupt Company’s Valuation” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, May 9, 2011.

“Not All Buybacks Are Created Equal: The Case of Accelerated Stock Repurchases.” 2010 FMA Annual Meeting, New York, New York, October 20-23, 2010.

“The Role of the Financial Expert in Bankrupt Company’s Valuation” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, March 10, 2010.

“The Role of the Financial Expert in Bankrupt Company’s Valuation” American Society of Appraisal (ASA) - Business Valuation (BV), Boston, October 19, 2009.

“A Guide to Corporate Valuation: Gaining Credibility and Avoiding Pitfalls” Kasowitz, Benson, Torres & Friedman, LLP, New York City, June 3, 2009.

“The Role of the Financial Expert in Fraudulent Conveyance Litigation” Mecklenberg County Bar W.D.N.C. Bankruptcy Seminar, Charlotte, North Carolina, May 8, 2009.

“Bankruptcy: A Company’s Decline is a Financial Expert’s Chance to Shine” Leon Recanati Graduate School of Business Administration, Tel-Aviv University, Israel, June 16, 2008.

“Enron’s Value: How Low Did It Go?” Financial Management Association Annual Meeting, Salt Lake City, Utah, October 13, 2006.

“Mergers & Acquisitions: History & Current Trends” (with H. Tullar), Alumni Reunion Affair, October 8, 2006.
“Cross-Border Mergers & Acquisitions” Boston University Breakfast Briefing, New York City, New York, April 24 and 25, 2006.

“Valuation: Art or Science? The Attorney’s Perspective” Boston University, Boston, Massachusetts, January 26, 2006.

“Key Valuation Issues: The Attorney’s Perspective” The American Corporate Counsel Association, Boston, Massachusetts, November 16, 2005.

“Highly Contested Valuation Battles: The Case of Mirant Corp” (with A. Michel), Financial Management Association Annual Meeting, Chicago, Illinois, October 14, 2005.

“On-Going Court Valuation Disputes: Built-in Capital Gains” (with A. Michel), Financial Management Association Annual Meeting, New Orleans, Louisiana, October 7, 2004.

“Relevant Financial Issues for ERISA Attorneys” (with A. Michel), U.S. Department of Labor, Boston, Massachusetts, March 30, 2004.

“Deepening Insolvency: Plaintiff vs. Defendant” (with A. Michel), Financial Management Association Meeting, Denver, Colorado, October 9, 2003.

"Analysis of Fraudulent Conveyances/Preferences" (with A. Michel), NYU Law School, New York, New York, November 22, 2002.

"Fraudulent Conveyance/Preferences: Plaintiff vs. Defendant Perspectives" (with A. Michel), Financial Management Association Meeting, San Antonio, Texas, October 17, 2002.

"Valuation Perspectives" American Electronics Association's (AeA) M&A Conferences Series, Waltham, Massachusetts, June 25, 2002.

"Analysis of Fraudulent Conveyances/Preferences" (with A. Michel), Harvard Law School, Boston, Massachusetts, March 2, 2002.

"Analysis of Fraudulent Conveyances/Preferences" (with A. Michel), Boston Bar Association Meeting, Boston, Massachusetts, January 12, 2002.

"Evaluating the Reasonability of Management's Projections" (with A. Michel), Financial Management Association Meeting, Toronto, Canada, October 19, 2001.

"The Role of the Financial Expert in Complex Litigation" (with A. Michel), Financial Management Association Meeting, Seattle, Washington, October 27, 2000.

"The Many Facets of a Valuation Case: An Expert Witness' Perspective" (with A. Michel), Financial Management Association Meeting, Orlando, Florida, October 7 1999.

"Valuing Damages: Compensatory and Punitive" Financial Management Association Meeting, Chicago, IL, October 15, 1998.

"Business Damages" (with A. Michel), Bingham Dana, Boston, Massachusetts, April 21, 1998.

"Emerging from Bankruptcy: Analysis of Disclosure Statement Projections" (Co-chaired Panel Session), Financial Management Association Meeting, Honolulu, Hawaii, October 16, 1997.

"Creating Shareholder Value," Coopers & Lybrand's Financial Services Power Learning Series, Dallas, Texas, July 11-14, 1997.

"Analysis of Control Premium Court Decisions 1980-1995" (Co-chaired Panel Session) Financial Management Association Meeting, New Orleans, Louisiana, October 10, 1996.

"Emerging Markets' Securities: Myth and Reality" The Central Bank of Trinidad, June 21, 1996.

"Financial Tools Applied to Marketing Decisions" Universidad Peruana de Ciencias Aplicadas, Lima, Peru, April 10, 1996.

"Key Issues Facing the Expert Witness" (Co-chaired Panel Session), Financial Management Association 25th Annual Meeting, New York, New York, October 21, 1995.

"Controversial Issues in the Courtroom: The Role of the Expert Witness" (Chaired Panel Session), Financial Management Association 24th Annual Meeting, St. Louis, Missouri, October 13, 1994.

"Corporate Acquisitions: Industry Influence on Target Performance," (with A. Michel), Financial Management Association 23rd Annual Meeting, Toronto, Canada, October 13-16, 1993.

"The Winner's Curse and Multiple Bidding Phenomena: The Shareholders' Perspective" (with A. Michel), Financial Management Association 23rd Annual Meeting, Toronto, October 13-16, 1993.

"Pitfalls in Corporate Valuation: The Attorney's Perspective" (with A. Michel), The Corporate Law Committee of the Boston Bar Association, Boston, Massachusetts, May 11, 1993.

"Do Poison Pills Matter? Evidence from the 80s" (with A. Michel and S. W. Kim), Financial Management Association Meetings, Chicago, October 1991.

"Mergers and Acquisition for Middle-Market Companies" (with A. Michel), CFO Seminars, New York City (Co-chairman of the conference's Program Committee), May 16-17, 1991.

"Financing Alternatives for Middle-Market Companies" (with A. Michel), CFO Seminars, New York City (Co-chairman of the conference's Program Committee), June 13-14, 1991.

"Cost Containment for Middle-Market Companies" (with A. Michel), CFO Seminars, New York City (Co-chairman of the conference's Program Committee), June 20-21, 1991.

"An Evaluation of Investment Banker Acquisition Advice: The Shareholders' Perspective" (with A. Michel and Y. T. Lee), Financial Management Association Meetings, Orlando, October 1990.

"Financing Alternatives for Middle-Market Companies" (with A. Michel), CFO Seminars, New York City (Co-chairman of the conference's Program Committee), November 1-2, 1990.

"Maximizing Cash Flow" (with A. Michel), CFO Seminars, New York City (Co-chairman of the conference's Program Committee), November 29-30, 1990.

"Multinational Corporations vs. Domestic Corporations: Financial Performance and Characteristics" Conference on Research in International Finance, Jouy En Josas, France, June 19-20, 1986.

"The Foreign Acquirer Bonanza: Myth or Reality?" (with A. Michel, D. McClain), North American Economics and Finance Association Meetings, New Orleans, December 1986.

"The Risk/Return Paradox Revisited," (with A. Michel), North American Economics and Finance Association Meetings, New York, December, 1985.

"The Case of Multiple Bidding: Are Acquirers Victims of the Winner's Curse?" (with A. Michel), Western Finance Association, Phoenix, June, 1985.

"Do Target Firms' Shareholders Gain from Multiple Bidding?" (with Allen Michel), Twentieth Annual Conference of the Western Finance Association, Scottsdale, Arizona, 1985.

"Are Conglomerates Safer?" (with A. Michel), North American Economics and Finance Associations Meetings, Dallas, December 1984.

"Are Multinational Corporations Safer?" Annual Meetings of the Allied Social Science Associations (also: The North American Economics and Finance Association), Dallas, Texas, December 28-30, 1984.

"Airline Performance Under Deregulation: The Shareholder's Perspective" (with A. Michel), Financial Management Association Meetings, Toronto, October 1984.

"Are Conglomerates Safer?" (with A. Michel), Financial Management Association Meetings, Toronto, October 1984.

"Airline Deregulation and Financial Performance of Air Carriers" (with A. Michel), Eastern Economics Association, Boston, March 1983.

“Measuring Life Insurance Company Safety: An Integrative Approach” and “The Valuation of FDIC Deposit Insurance Using Option-Pricing Estimates” L ‘association Francaise de Finance 4th International Meeting, Carry-Le-Rouet, France, June 9-10, 1983.

“The Valuation of FDIC Deposit Insurance: Empirical Estimates Using the Option Pricing Framework” (with A. Marcus), The Annual Meetings of the Allied Social Science Associates, New York City, December 1982.

A SELECT LIST OF MEMBERSHIPS

The American Finance Association (AFA)

Financial Management Association (FMA)

American Bar Association (ABA) (Associate)

American Bankruptcy Institute (ABI)

National Association of Forensic Economics (NAFE)

Association of Insolvency & Restructuring Advisors (AIRA)

Exhibit 3**Mallinckrodt plc****Summary of Opioid Studies**

Study Year: 2001 - 2018

Study	Study Year	Opioids Included	Cost (\$)	Costs Included
Birnbaum 2006	2001	Prescription	\$ 8.6 billion	Healthcare, Workplace & Criminal
Altarum 2018	2001	Prescription & Illicit	\$ 29.1 billion	Productivity, Healthcare, Criminal Justice, Education, Child and Family Assistance
Hansen 2011	2006	Prescription	\$ 53.4 billion	Lost productivity, Criminal Justice, Drug abuse Treatment, Medical complications
Altarum 2018	2006	Prescription & Illicit	\$ 48.7 billion	Productivity, Healthcare, Criminal Justice, Education, Child and Family Assistance
Birnbaum 2011	2007	Prescription	\$ 55.7 billion	Healthcare, Workplace & Criminal
Altarum 2018	2011	Prescription & Illicit	\$ 60.9 billion	Productivity, Healthcare, Criminal Justice, Education, Child and Family Assistance
Florence 2016	2013	Prescription	\$ 78.5 billion	Criminal Justice, Lost Productivity, Substance Abuse Treatment, Health Insurance, Fatal Cost
CEA 2017	2015	Prescription & Illicit	\$ 504.0 billion	Economic cost of opioid crisis (\$431.7 billion for fatality cost and \$72.7 billion for non-fatality cost) in 2015
Altarum 2018	2016	Prescription & Illicit	\$ 95.8 billion	Productivity, Healthcare, Criminal Justice, Education, Child and Family Assistance
Florence 2021	2017	Prescription & Illicit	\$ 1.02 trillion	The U.S. economic cost of opioid use disorder (\$471 billion) and fatal opioid overdose (\$550 billion)
MHA 2019	2017	Prescription & Illicit	\$ 684.6 billion	Fatal and non-fatal
SOA 2020	2015 - 2018	Prescription & Illicit	\$ 631 billion	Health care services, premature mortality, criminal justice activities, child and family assistance programs, education programs and lost productivity
Murphy 2020	2018	Prescription & Illicit	\$ 786.8 billion	Society (\$786.8B), Lost Productivity, Criminal Justice, Healthcare (taxpayer and healthcare), and premature mortality

Exhibit 3

Mallinckrodt plc

Summary of Opioid Studies

Study Year: 2001 - 2018

Sources:

“Economic Toll of Opioid Crisis in U.S. Exceeded \$1 Trillion Since 2001,” Altarum, February 13, 2018. Note: All cost estimates are in 2016 dollars.

“The Underestimated Cost of the Opioid Crisis,” The Council of Economic Advisers, November 2017.

Curtis Florence, et al., “The Economic Burden of Prescription Opioid Overdose, Abuse and Dependence in the United States, 2013,” Medical Care, October 2016.

Curtis Florence, et al., “The economic burden of opioid use disorder and fatal opioid overdose in the United States, 2017,” Drug and Alcohol Dependence, October 27, 2020.

Howard G. Birnbaum et al., “Estimated Costs of Prescription Opioid Analgesic Abuse in the United States in 2001: A Societal Perspective,” Clinical Journal of Pain, October 2006.

Howard G. Birnbaum et al., “Societal costs of prescription opioid abuse, dependence, and misuse in the United States,” Pain Medicine, April 2011.

Mat Reidhead and Shawn Billings, “The Economic Cost of the Opioid Crisis in the U.S.: A State-by-State Comparison,” Missouri Hospital Association, April 2019.

Ryan H. Hansen et al., “Economic Costs of Nonmedical Use of Prescription Opioids,” Clinical Journal of Pain March/April 2011.

Sean M. Murphy, “The cost of opioid use disorder and the value of aversion,” Drug and Alcohol Dependence, October 2020.

Stoddard Davenport, Alexandra Weaver, and Matt Caverly, “Economic Impact of Non-Medical Opioid Use in the United States: Annual Estimates and Projections for 2015 through 2019,” Society of Actuaries, October 2019.

Exhibit 4-1A**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2014

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.11	\$	1.61	30.0	4.7	\$	3.4	\$	7.6
2007		0.11		1.61	32.5	4.9		7.1		15.4
2008		0.11		1.61	43.5	5.6		12.1		24.5
2009		0.11		1.61	52.2	5.7		18.0		33.7
2010		0.11		1.61	51.3	5.6		23.9		42.8
2011		0.11		1.61	52.3	5.5		29.8		51.6
2012		0.11		1.61	49.1	5.1		35.4		59.9
2013		0.11		1.61	50.3	5.0		41.2		67.9
2014		0.11		1.61	42.9	3.8		46.1		74.0
Estimated Liability as of December 31, 2014								46.1	74.0	

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 4-1B**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2014

(in billions, except Ratio)

Year	Societal Cost Ratio		Total Industry Shipments		Cumulative Mallinckrodt Liability					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.11	\$	1.61	156.1	11.0	\$	17.8	\$	17.8
2007		0.11		1.61	173.6	12.3		37.6		37.6
2008		0.11		1.61	187.9	13.2		59.0		58.9
2009		0.11		1.61	202.6	14.2		82.1		81.8
2010		0.11		1.61	222.1	15.0		107.4		105.9
2011		0.11		1.61	227.5	15.9		133.4		131.7
2012		0.11		1.61	223.4	15.8		158.8		157.2
2013		0.11		1.61	211.8	15.1		183.0		181.6
2014		0.11		1.61	207.8	14.7		206.7		205.4
Estimated Liability as of December 31, 2014								206.7		205.4

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 4-2A**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/14) Study Ratio**

As of December 31, 2014

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.56	30.0	4.7	\$ 3.3	\$ 7.3
2007	0.11	1.56	32.5	4.9	6.9	14.9
2008	0.11	1.56	43.5	5.6	11.7	23.7
2009	0.11	1.56	52.2	5.7	17.5	32.6
2010	0.11	1.56	51.3	5.6	23.1	41.4
2011	0.11	1.56	52.3	5.5	28.9	50.0
2012	0.11	1.56	49.1	5.1	34.3	58.0
2013	0.11	1.56	50.3	5.0	39.9	65.8
2014	0.11	1.56	42.9	3.8	44.6	71.7
Estimated Liability as of December 31, 2014					44.6	71.7

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 4-2B**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/14) Study Ratio**

As of December 31, 2014

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.56	156.1	11.0	\$ 17.2	\$ 17.2
2007	0.11	1.56	173.6	12.3	36.4	36.4
2008	0.11	1.56	187.9	13.2	57.2	57.1
2009	0.11	1.56	202.6	14.2	79.6	79.2
2010	0.11	1.56	222.1	15.0	104.1	102.6
2011	0.11	1.56	227.5	15.9	129.2	127.6
2012	0.11	1.56	223.4	15.8	153.9	152.3
2013	0.11	1.56	211.8	15.1	177.3	175.9
2014	0.11	1.56	207.8	14.7	200.3	199.0
Estimated Liability as of December 31, 2014					200.3	199.0

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 5-1A**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2015

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.12	\$ 1.67	30.0	4.7	\$ 3.6	\$ 7.8
2007	0.12	1.67	32.5	4.9	7.4	16.0
2008	0.12	1.67	43.5	5.6	12.6	25.3
2009	0.12	1.67	52.2	5.7	18.8	34.9
2010	0.12	1.67	51.3	5.6	24.9	44.3
2011	0.12	1.67	52.3	5.5	31.1	53.5
2012	0.12	1.67	49.1	5.1	36.9	62.0
2013	0.12	1.67	50.3	5.0	42.9	70.3
2014	0.12	1.67	42.9	3.8	48.0	76.7
2015	0.12	1.67	39.1	3.5	52.6	82.5
Estimated Liability as of December 31, 2015					52.6	82.5

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 5-1B**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2015

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.12	\$	1.67	156.1	11.0	\$	18.5	\$	18.4
2007		0.12		1.67	173.6	12.3		39.2		39.0
2008		0.12		1.67	187.9	13.2		61.5		61.1
2009		0.12		1.67	202.6	14.2		85.5		84.7
2010		0.12		1.67	222.1	15.0		111.9		109.7
2011		0.12		1.67	227.5	15.9		138.9		136.4
2012		0.12		1.67	223.4	15.8		165.5		162.8
2013		0.12		1.67	211.8	15.1		190.6		188.1
2014		0.12		1.67	207.8	14.7		215.3		212.7
2015		0.12		1.67	201.1	13.9		239.2		236.0
Estimated Liability as of December 31, 2015								239.2		236.0

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 5-2A**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL) Study Ratio**

As of December 31, 2015

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	30.0	4.7	\$ 3.4	\$ 7.6
2007	0.11	1.61	32.5	4.9	7.1	15.4
2008	0.11	1.61	43.5	5.6	12.1	24.5
2009	0.11	1.61	52.2	5.7	18.0	33.7
2010	0.11	1.61	51.3	5.6	23.9	42.8
2011	0.11	1.61	52.3	5.5	29.8	51.6
2012	0.11	1.61	49.1	5.1	35.4	59.9
2013	0.11	1.61	50.3	5.0	41.2	67.9
2014	0.11	1.61	42.9	3.8	46.1	74.0
2015	0.11	1.61	39.1	3.5	50.5	79.6
Estimated Liability as of December 31, 2015					50.5	79.6

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 5-2B**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL) Study Ratio**

As of December 31, 2015

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	156.1	11.0	\$ 17.8	\$ 17.8
2007	0.11	1.61	173.6	12.3	37.6	37.6
2008	0.11	1.61	187.9	13.2	59.0	58.9
2009	0.11	1.61	202.6	14.2	82.1	81.8
2010	0.11	1.61	222.1	15.0	107.4	105.9
2011	0.11	1.61	227.5	15.9	133.4	131.7
2012	0.11	1.61	223.4	15.8	158.8	157.2
2013	0.11	1.61	211.8	15.1	183.0	181.6
2014	0.11	1.61	207.8	14.7	206.7	205.4
2015	0.11	1.61	201.1	13.9	229.6	227.9
Estimated Liability as of December 31, 2015					229.6	227.9

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 5-3A**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/15) Study Ratio**

As of December 31, 2015

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.56	30.0	4.7	\$ 3.3	\$ 7.3
2007	0.11	1.56	32.5	4.9	6.9	14.9
2008	0.11	1.56	43.5	5.6	11.7	23.7
2009	0.11	1.56	52.2	5.7	17.5	32.6
2010	0.11	1.56	51.3	5.6	23.1	41.4
2011	0.11	1.56	52.3	5.5	28.9	50.0
2012	0.11	1.56	49.1	5.1	34.3	58.0
2013	0.11	1.56	50.3	5.0	39.9	65.8
2014	0.11	1.56	42.9	3.8	44.6	71.7
2015	0.11	1.56	39.1	3.5	49.0	77.1
Estimated Liability as of December 31, 2015					49.0	77.1

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 5-3B**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/15) Study Ratio**

As of December 31, 2015

(in billions, except Ratio)

Year	Societal Cost Ratio		Total Industry Shipments		Cumulative Mallinckrodt Liability					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.11	\$	1.56	156.1	11.0	\$	17.2	\$	17.2
2007		0.11		1.56	173.6	12.3		36.4		36.4
2008		0.11		1.56	187.9	13.2		57.2		57.1
2009		0.11		1.56	202.6	14.2		79.6		79.2
2010		0.11		1.56	222.1	15.0		104.1		102.6
2011		0.11		1.56	227.5	15.9		129.2		127.6
2012		0.11		1.56	223.4	15.8		153.9		152.3
2013		0.11		1.56	211.8	15.1		177.3		175.9
2014		0.11		1.56	207.8	14.7		200.3		199.0
2015		0.11		1.56	201.1	13.9		222.5		220.7
Estimated Liability as of December 31, 2015								222.5		220.7

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 6-1A**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2016

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.12	\$ 1.67	30.0	4.7	\$ 3.6	\$ 7.8
2007	0.12	1.67	32.5	4.9	7.4	16.0
2008	0.12	1.67	43.5	5.6	12.6	25.3
2009	0.12	1.67	52.2	5.7	18.8	34.9
2010	0.12	1.67	51.3	5.6	24.9	44.3
2011	0.12	1.67	52.3	5.5	31.1	53.5
2012	0.12	1.67	49.1	5.1	36.9	62.0
2013	0.12	1.67	50.3	5.0	42.9	70.3
2014	0.12	1.67	42.9	3.8	48.0	76.7
2015	0.12	1.67	39.1	3.5	52.6	82.5
2016	0.12	1.67	36.5	3.1	57.0	87.7
Estimated Liability as of December 31, 2016					57.0	87.7

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 6-1B**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2016

(in billions, except Ratio)

Year	Societal Cost Ratio		Total Industry Shipments		Cumulative Mallinckrodt Liability					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.12	\$	1.67	156.1	11.0	\$	18.5	\$	18.4
2007		0.12		1.67	173.6	12.3		39.2		39.0
2008		0.12		1.67	187.9	13.2		61.5		61.1
2009		0.12		1.67	202.6	14.2		85.5		84.7
2010		0.12		1.67	222.1	15.0		111.9		109.7
2011		0.12		1.67	227.5	15.9		138.9		136.4
2012		0.12		1.67	223.4	15.8		165.5		162.8
2013		0.12		1.67	211.8	15.1		190.6		188.1
2014		0.12		1.67	207.8	14.7		215.3		212.7
2015		0.12		1.67	201.1	13.9		239.2		236.0
2016		0.12		1.67	187.6	13.1		261.5		257.9
Estimated Liability as of December 31, 2016								261.5		257.9

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 6-2A**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL) Study Ratio**

As of December 31, 2016

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	30.0	4.7	\$ 3.4	\$ 7.6
2007	0.11	1.61	32.5	4.9	7.1	15.4
2008	0.11	1.61	43.5	5.6	12.1	24.5
2009	0.11	1.61	52.2	5.7	18.0	33.7
2010	0.11	1.61	51.3	5.6	23.9	42.8
2011	0.11	1.61	52.3	5.5	29.8	51.6
2012	0.11	1.61	49.1	5.1	35.4	59.9
2013	0.11	1.61	50.3	5.0	41.2	67.9
2014	0.11	1.61	42.9	3.8	46.1	74.0
2015	0.11	1.61	39.1	3.5	50.5	79.6
2016	0.11	1.61	36.5	3.1	54.7	84.7
Estimated Liability as of December 31, 2016					54.7	84.7

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 6-2B**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL) Study Ratio**

As of December 31, 2016

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	156.1	11.0	\$ 17.8	\$ 17.8
2007	0.11	1.61	173.6	12.3	37.6	37.6
2008	0.11	1.61	187.9	13.2	59.0	58.9
2009	0.11	1.61	202.6	14.2	82.1	81.8
2010	0.11	1.61	222.1	15.0	107.4	105.9
2011	0.11	1.61	227.5	15.9	133.4	131.7
2012	0.11	1.61	223.4	15.8	158.8	157.2
2013	0.11	1.61	211.8	15.1	183.0	181.6
2014	0.11	1.61	207.8	14.7	206.7	205.4
2015	0.11	1.61	201.1	13.9	229.6	227.9
2016	0.11	1.61	187.6	13.1	251.0	249.0
Estimated Liability as of December 31, 2016					251.0	249.0

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 6-3A**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/16) Study Ratio**

As of December 31, 2016

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	30.0	4.7	\$ 3.4	\$ 7.6
2007	0.11	1.61	32.5	4.9	7.1	15.4
2008	0.11	1.61	43.5	5.6	12.1	24.5
2009	0.11	1.61	52.2	5.7	18.0	33.7
2010	0.11	1.61	51.3	5.6	23.9	42.8
2011	0.11	1.61	52.3	5.5	29.8	51.6
2012	0.11	1.61	49.1	5.1	35.4	59.9
2013	0.11	1.61	50.3	5.0	41.2	67.9
2014	0.11	1.61	42.9	3.8	46.1	74.0
2015	0.11	1.61	39.1	3.5	50.5	79.6
2016	0.11	1.61	36.5	3.1	54.7	84.7
Estimated Liability as of December 31, 2016					54.7	84.7

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 6-3B**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/16) Study Ratio**

As of December 31, 2016

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	156.1	11.0	\$ 17.8	\$ 17.8
2007	0.11	1.61	173.6	12.3	37.6	37.6
2008	0.11	1.61	187.9	13.2	59.0	58.9
2009	0.11	1.61	202.6	14.2	82.1	81.8
2010	0.11	1.61	222.1	15.0	107.4	105.9
2011	0.11	1.61	227.5	15.9	133.4	131.7
2012	0.11	1.61	223.4	15.8	158.8	157.2
2013	0.11	1.61	211.8	15.1	183.0	181.6
2014	0.11	1.61	207.8	14.7	206.7	205.4
2015	0.11	1.61	201.1	13.9	229.6	227.9
2016	0.11	1.61	187.6	13.1	251.0	249.0
Estimated Liability as of December 31, 2016					251.0	249.0

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-1A**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.12	\$ 1.67	30.0	4.7	\$ 3.6	\$ 7.8
2007	0.12	1.67	32.5	4.9	7.4	16.0
2008	0.12	1.67	43.5	5.6	12.6	25.3
2009	0.12	1.67	52.2	5.7	18.8	34.9
2010	0.12	1.67	51.3	5.6	24.9	44.3
2011	0.12	1.67	52.3	5.5	31.1	53.5
2012	0.12	1.67	49.1	5.1	36.9	62.0
2013	0.12	1.67	50.3	5.0	42.9	70.3
2014	0.12	1.67	42.9	3.8	48.0	76.7
2015	0.12	1.67	39.1	3.5	52.6	82.5
2016	0.12	1.67	36.5	3.1	57.0	87.7
2017	0.12	1.67	34.5	3.1	61.1	92.9
Estimated Liability as of December 31, 2017					61.1	92.9

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-1B**Mallinckrodt plc****Estimated Opioid Liability - Median Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	Societal Cost Ratio		Total Industry Shipments		Cumulative Mallinckrodt Liability					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.12	\$	1.67	156.1	11.0	\$	18.5	\$	18.4
2007		0.12		1.67	173.6	12.3		39.2		39.0
2008		0.12		1.67	187.9	13.2		61.5		61.1
2009		0.12		1.67	202.6	14.2		85.5		84.7
2010		0.12		1.67	222.1	15.0		111.9		109.7
2011		0.12		1.67	227.5	15.9		138.9		136.4
2012		0.12		1.67	223.4	15.8		165.5		162.8
2013		0.12		1.67	211.8	15.1		190.6		188.1
2014		0.12		1.67	207.8	14.7		215.3		212.7
2015		0.12		1.67	201.1	13.9		239.2		236.0
2016		0.12		1.67	187.6	13.1		261.5		257.9
2017		0.12		1.67	163.1	11.7		280.8		277.5
Estimated Liability as of December 31, 2017								280.8		277.5

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-2A**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL) Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	30.0	4.7	\$ 3.4	\$ 7.6
2007	0.11	1.61	32.5	4.9	7.1	15.4
2008	0.11	1.61	43.5	5.6	12.1	24.5
2009	0.11	1.61	52.2	5.7	18.0	33.7
2010	0.11	1.61	51.3	5.6	23.9	42.8
2011	0.11	1.61	52.3	5.5	29.8	51.6
2012	0.11	1.61	49.1	5.1	35.4	59.9
2013	0.11	1.61	50.3	5.0	41.2	67.9
2014	0.11	1.61	42.9	3.8	46.1	74.0
2015	0.11	1.61	39.1	3.5	50.5	79.6
2016	0.11	1.61	36.5	3.1	54.7	84.7
2017	0.11	1.61	34.5	3.1	58.6	89.6
Estimated Liability as of December 31, 2017					58.6	89.6

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-2B**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL) Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	156.1	11.0	\$ 17.8	\$ 17.8
2007	0.11	1.61	173.6	12.3	37.6	37.6
2008	0.11	1.61	187.9	13.2	59.0	58.9
2009	0.11	1.61	202.6	14.2	82.1	81.8
2010	0.11	1.61	222.1	15.0	107.4	105.9
2011	0.11	1.61	227.5	15.9	133.4	131.7
2012	0.11	1.61	223.4	15.8	158.8	157.2
2013	0.11	1.61	211.8	15.1	183.0	181.6
2014	0.11	1.61	207.8	14.7	206.7	205.4
2015	0.11	1.61	201.1	13.9	229.6	227.9
2016	0.11	1.61	187.6	13.1	251.0	249.0
2017	0.11	1.61	163.1	11.7	269.6	267.9
Estimated Liability as of December 31, 2017					269.6	267.9

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-3A**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/17) Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.12	\$ 1.67	30.0	4.7	\$ 3.6	\$ 7.8
2007	0.12	1.67	32.5	4.9	7.4	16.0
2008	0.12	1.67	43.5	5.6	12.6	25.3
2009	0.12	1.67	52.2	5.7	18.8	34.9
2010	0.12	1.67	51.3	5.6	24.9	44.3
2011	0.12	1.67	52.3	5.5	31.1	53.5
2012	0.12	1.67	49.1	5.1	36.9	62.0
2013	0.12	1.67	50.3	5.0	42.9	70.3
2014	0.12	1.67	42.9	3.8	48.0	76.7
2015	0.12	1.67	39.1	3.5	52.6	82.5
2016	0.12	1.67	36.5	3.1	57.0	87.7
2017	0.12	1.67	34.5	3.1	61.1	92.9
Estimated Liability as of December 31, 2017					61.1	92.9

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-3B**Mallinckrodt plc****Estimated Opioid Liability - Median (Pre-12/31/17) Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>Total Industry Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.12	\$ 1.67	156.1	11.0	\$ 18.5	\$ 18.4
2007	0.12	1.67	173.6	12.3	39.2	39.0
2008	0.12	1.67	187.9	13.2	61.5	61.1
2009	0.12	1.67	202.6	14.2	85.5	84.7
2010	0.12	1.67	222.1	15.0	111.9	109.7
2011	0.12	1.67	227.5	15.9	138.9	136.4
2012	0.12	1.67	223.4	15.8	165.5	162.8
2013	0.12	1.67	211.8	15.1	190.6	188.1
2014	0.12	1.67	207.8	14.7	215.3	212.7
2015	0.12	1.67	201.1	13.9	239.2	236.0
2016	0.12	1.67	187.6	13.1	261.5	257.9
2017	0.12	1.67	163.1	11.7	280.8	277.5
Estimated Liability as of December 31, 2017					280.8	277.5

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-4A**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL, Pre-12/31/17) Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	<u>Societal Cost Ratio</u>		<u>MNK Shipments</u>		<u>Cumulative Mallinckrodt Liability</u>	
	MME	Dosage	by MME	by Dosage	by MME	by Dosage
2006	\$ 0.11	\$ 1.61	30.0	4.7	\$ 3.4	\$ 7.6
2007	0.11	1.61	32.5	4.9	7.1	15.4
2008	0.11	1.61	43.5	5.6	12.1	24.5
2009	0.11	1.61	52.2	5.7	18.0	33.7
2010	0.11	1.61	51.3	5.6	23.9	42.8
2011	0.11	1.61	52.3	5.5	29.8	51.6
2012	0.11	1.61	49.1	5.1	35.4	59.9
2013	0.11	1.61	50.3	5.0	41.2	67.9
2014	0.11	1.61	42.9	3.8	46.1	74.0
2015	0.11	1.61	39.1	3.5	50.5	79.6
2016	0.11	1.61	36.5	3.1	54.7	84.7
2017	0.11	1.61	34.5	3.1	58.6	89.6
Estimated Liability as of December 31, 2017					58.6	89.6

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

Exhibit 7-4B**Mallinckrodt plc****Estimated Opioid Liability - Median (Excl. VSL, Pre-12/31/17) Study Ratio**

As of December 31, 2017

(in billions, except Ratio)

Year	Societal Cost Ratio		Total Industry Shipments		Cumulative Mallinckrodt Liability					
	MME	Dosage	by MME	by Dosage	by MME	by Dosage				
2006	\$	0.11	\$	1.61	156.1	11.0	\$	17.8	\$	17.8
2007		0.11		1.61	173.6	12.3		37.6		37.6
2008		0.11		1.61	187.9	13.2		59.0		58.9
2009		0.11		1.61	202.6	14.2		82.1		81.8
2010		0.11		1.61	222.1	15.0		107.4		105.9
2011		0.11		1.61	227.5	15.9		133.4		131.7
2012		0.11		1.61	223.4	15.8		158.8		157.2
2013		0.11		1.61	211.8	15.1		183.0		181.6
2014		0.11		1.61	207.8	14.7		206.7		205.4
2015		0.11		1.61	201.1	13.9		229.6		227.9
2016		0.11		1.61	187.6	13.1		251.0		249.0
2017		0.11		1.61	163.1	11.7		269.6		267.9
Estimated Liability as of December 31, 2017								269.6		267.9

Source:

ARCOS Data; Exhibit 3 of the Shaked Affidavit.

EXHIBIT 5

**IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE**

In re:	:	Chapter 11
MALLINCKRODT PLC,	:	Case No. 20-12522 (JTD)
Reorganized Debtor. ¹	:	(Jointly Administered)
<hr/>		
OPIOID MASTER DISBURSEMENT TRUST II,	:	
Plaintiff,	:	
vs.	:	Adversary Proceeding
	:	No. 22-50435 (JTD)
ARGOS CAPITAL APPRECIATION MASTER	:	
FUND LP., <i>et al.</i> ,	:	
Defendants.	:	

DECLARATION OF DAMIEN MALONE

I, Damien Malone, hereby declares as follows:

I. Qualifications

1. I am the founder and managing partner of Malone & Co. in Dublin, Ireland – an established firm of Chartered Tax Advisors affiliated to the Irish Taxation Institute, the premier Irish body for Tax Advisors. I am a fellow of the Association of Chartered Certified Accountants,

¹ The Reorganized Debtor in this chapter 11 case is Mallinckrodt plc. On May 3, 2023, the Court closed the chapter 11 cases of the Reorganized Debtor's debtor-affiliates. A complete list of those affiliates may be obtained on the website of the Reorganized Debtor's claims and noticing agent at <http://restructuring.ra.kroll.com/Mallinckrodt>. The Reorganized Debtor's mailing address is 675 McDonnell Blvd., Hazelwood, Missouri 63042.

a Statutory Auditor, and a member of the Institute of Taxation in Ireland. I have over fifteen years of experience in the field of accounting in Ireland.

II. Background

2. The Opioid Master Disbursement Trust II (“**Trust**”) retained me to provide testimony, in accordance with Rule 44.1 of the Federal Rules of Civil **Procedure**, regarding certain provisions of the Irish General Accepted Accounting Principles (“**Irish GAAP**”) which is the Financial Reporting Standard Applicable in the UK and Republic of Ireland (“**FRS 102**”), in connection with the Trust’s objections to the *Motion to Dismiss the Amended Complaint as to Citadel Securities LLC ad Susquehanna Securities, LLC Pursuant to the Protocol Order Relating to Conduits, Non-Transferees, “Stockbrokers,” “Financial Institutions,” “Financial Participants,” and Dissolved Entities* and the *Motion to Dismiss the Amended Complaint as to Defendants T. Rowe Price Associates, Inc. and Various T. Rowe Price Funds Pursuant to the Protocol Order Relating to Conduits, Non-Transferees, “Stockbrokers,” “Financial Institutions,” “Financial Participants,” and Dissolved Entities*. Specifically, I was asked to explain the treatment of liabilities of uncertain timing or amount under FRS 102.

3. My statements herein are based on my review of the documents attached hereto as **Exhibit A**, which consist of relevant provisions from FRS 102.

III. FRS 102 Provisions

4. FRS 102 was published for the first time in 2015 and is the applicable Irish GAAP standard starting from the year 2015.

5. Under FRS 102, an entity must recognise a provision—that is, a liability “of uncertain timing or amount”—when (a) the entity has an obligation at the reporting date as a result

of a past event; (b) it is probable that the entity will be required to transfer economic benefits in settlement; and (c) the amount of the obligation can be estimated reliably. FRS 102 §§ 21.1; 21.4.

6. Having an obligation at the reporting date as a result of a past event means that “the entity has no realistic alternative to settling the obligation. This can happen when the entity has a legal obligation that can be enforced by law or when the entity has a constructive obligation because the past event (which may be an action of the entity) has created valid expectations in other parties that the entity will discharge the obligation.” *Id.* § 21.6.²

7. “Probable” is defined as “more likely than not.” *Id.* § 21.4.

8. If the provision meets the requirements of section 21.4, an entity must recognise it as a liability in the statement of financial position, and it must recognise the amount of the provision as an expense. *Id.* § 21.5.

9. In estimating the provision, the entity “shall measure a provision at the best estimate of the amount required to settle the obligation at the reporting date. The best estimate is the amount an entity would rationally pay to settle the obligation at the end of the reporting period or to transfer it to a third party at that time.” *Id.* § 21.7.

10. “When the provision involves a large population of items, the estimate of the amount reflects the weighing of all possible outcomes by their associated probabilities. Where there is a continuous range of possible outcomes, and each point in that range is as likely to occur as any other, the mid-point of the range is used.” *Id.* § 21.7(a).

² Obligations that will arise from the entity’s future actions, that is, the future conduct of its business, “do not satisfy the condition in paragraph 21.4(a), no matter how likely they are to occur and even if they are contractual,” because “the entity can avoid the future expenditure by its future actions.” *Id.* The example that the FRS 102 provides is where, because of commercial pressures or legal requirements, an entity may intend or need to carry out expenditure to operate in a particular way in the future, such as by fitting smoke filters in a particular type of factory. *Id.* Because the entity can avoid the future expenditure by its future actions, such as by changing its method of operation or selling the factory, it has no **present** obligation for that future expenditure and no provision is **recognised**. *Id.*

11. Section 21 of FRS 102 did not change the existing rules of Irish GAAP.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

EXECUTED this 15th day of January, 2024, at Dublin, Ireland.



Damien Malone

EXHIBIT A



Financial Reporting Council

January 2022

FRS 102

The Financial Reporting Standard applicable in the UK and Republic of Ireland

The FRC's purpose is to serve the public interest by setting high standards of corporate governance, reporting and audit and by holding to account those responsible for delivering them. The FRC sets the UK Corporate Governance and Stewardship Codes and UK standards for accounting and actuarial work; monitors and takes action to promote the quality of corporate reporting; and operates independent enforcement arrangements for accountants and actuaries. As the Competent Authority for audit in the UK the FRC sets auditing and ethical standards and monitors and enforces audit quality.

The FRC does not accept any liability to any party for any loss, damage or costs howsoever arising, whether directly or indirectly, whether in contract, tort or otherwise from any action or decision taken (or not taken) as a result of any person relying on or otherwise using this document or arising from any omission from it.

© The Financial Reporting Council Limited 2022
The Financial Reporting Council Limited is a company limited by guarantee.
Registered in England number 2486368. Registered Office:
8th Floor, 125 London Wall, London EC2Y 5AS

This Financial Reporting Standard contains copyright material of the IFRS® Foundation (Foundation) in respect of which all rights are reserved.

Reproduced and distributed by the FRC with the permission of the Foundation. No rights granted to third parties other than as permitted by the Terms of Use (www.frc.org.uk/FRTermsOfUse) without the prior written permission of the FRC and the Foundation.

Financial Reporting Exposure Drafts and Financial Reporting Standards are issued by the FRC in respect of their application in the UK and the Republic of Ireland and have not been prepared or endorsed by the International Accounting Standards Board.

This Financial Reporting Standard is for reference outside the UK and Republic of Ireland

Due to copyright restrictions, the full text of FRS 102 and the Basis for Conclusions that accompanies the standard is not available outside the UK and Republic of Ireland.

This version omits content not available outside the UK and Republic of Ireland.



Financial Reporting Council

January 2022

FRS 102

The Financial Reporting Standard applicable in the UK and Republic of Ireland

FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland* is an accounting standard. It is issued by the Financial Reporting Council, as a prescribed body, for application in the United Kingdom and the Republic of Ireland.

Section 21

Provisions and Contingencies

Scope of this section

- 21.1 This section applies to **provisions** (ie **liabilities** of uncertain timing or amount), **contingent liabilities** and **contingent assets** except those provisions covered by other sections of this FRS. Where those other sections contain no specific requirements to deal with contracts that have become onerous, this section applies to those contracts.
- 21.1A This section applies to **financial guarantee contracts** unless:
- (a) an entity has chosen to apply IAS 39 *Financial Instruments: Recognition and Measurement* and/or IFRS 9 *Financial Instruments* to its **financial instruments** (see paragraphs 11.2 and 12.2); or
 - (b) an entity has elected under **FRS 103** to continue the application of insurance contract accounting.
- 21.1B This section does not apply to:
- (a) financial instruments (including loan commitments) that are within the scope of Section 11 *Basic Financial Instruments* or Section 12 *Other Financial Instruments Issues*;
 - (b) **insurance contracts** (including **reinsurance contracts**) that an entity issues and reinsurance contracts that the entity holds, or financial instruments issued by an entity with a **discretionary participation feature** that are within the scope of FRS 103; or
 - (c) executory contracts (ie contracts under which neither party has performed any obligations or both parties have partially performed their obligations to an equal extent) unless they are **onerous contracts**.
- 21.2 [Moved to paragraph 21.1B(c)]
- 21.3 The word 'provision' is sometimes used in the context of such items as **depreciation**, impairment of **assets**, and uncollectible receivables. Those are adjustments of the **carrying amounts** of assets, rather than **recognition** of liabilities, and therefore are not covered by this section.

Initial recognition

- 21.4 An entity shall recognise a provision only when:
- (a) the entity has an obligation at the **reporting date** as a result of a past event;
 - (b) it is **probable** (ie more likely than not) that the entity will be required to transfer economic benefits in settlement; and
 - (c) the amount of the obligation can be estimated reliably.
- 21.5 The entity shall recognise the provision as a liability in the **statement of financial position** and shall recognise the amount of the provision as an **expense**, unless another section of this FRS requires the cost to be recognised as part of the cost of an asset such as **inventories** or **property, plant and equipment**.

- 21.6 The condition in paragraph 21.4(a) means that the entity has no realistic alternative to settling the obligation. This can happen when the entity has a legal obligation that can be enforced by law or when the entity has a **constructive obligation** because the past event (which may be an action of the entity) has created valid expectations in other parties that the entity will discharge the obligation. Obligations that will arise from the entity's future actions (ie the future conduct of its **business**) do not satisfy the condition in paragraph 21.4(a), no matter how likely they are to occur and even if they are contractual. To illustrate, because of commercial pressures or legal requirements, an entity may intend or need to carry out expenditure to operate in a particular way in the future (for example, by fitting smoke filters in a particular type of factory). Because the entity can avoid the future expenditure by its future actions, for example by changing its method of operation or selling the factory, it has no present obligation for that future expenditure and no provision is recognised.

Initial measurement

- 21.7 An entity shall measure a provision at the best estimate of the amount required to settle the obligation at the reporting date. The best estimate is the amount an entity would rationally pay to settle the obligation at the end of the **reporting period** or to transfer it to a third party at that time.
- (a) When the provision involves a large population of items, the estimate of the amount reflects the weighting of all possible outcomes by their associated probabilities. Where there is a continuous range of possible outcomes, and each point in that range is as likely as any other, the mid-point of the range is used.
 - (b) When the provision arises from a single obligation, the individual most likely outcome may be the best estimate of the amount required to settle the obligation. However, even in such a case, the entity considers other possible outcomes. When other possible outcomes are either mostly higher or mostly lower than the most likely outcome, the best estimate will be a higher or lower amount.

When the effect of the time value of money is **material**, the amount of a provision shall be the **present value** of the amount expected to be required to settle the obligation. The discount rate (or rates) shall be a pre-tax rate (or rates) that reflect(s) current market assessments of the time value of money and risks specific to the liability. The risks specific to the liability shall be reflected either in the discount rate or in the estimation of the amounts required to settle the obligation, but not both.

- 21.8 An entity shall exclude **gains** from the expected disposal of assets from the **measurement** of a provision.
- 21.9 When some or all of the amount required to settle a provision may be reimbursed by another party (eg through an insurance claim), the entity shall recognise the reimbursement as a separate asset only when it is virtually certain that the entity will receive the reimbursement on settlement of the obligation. The amount recognised for the reimbursement shall not exceed the amount of the provision. The reimbursement receivable shall be presented in the statement of financial position as an asset and shall not be offset against the provision. In the **statement of comprehensive income** (or in the **income statement**, if presented) the expense relating to a provision may be presented net of the amount recognised for a reimbursement.

Subsequent measurement

- 21.10 An entity shall charge against a provision only those expenditures for which the provision was originally recognised.
- 21.11 An entity shall review provisions at each reporting date and adjust them to reflect the current best estimate of the amount that would be required to settle the obligation at that reporting date. Any adjustments to the amounts previously recognised shall be recognised in **profit or loss** unless the provision was originally recognised as part of the cost of an asset (see paragraph 21.5). When a provision is measured at the present value of the amount expected to be required to settle the obligation, the unwinding of the discount shall be recognised as a finance cost in profit or loss in the period it arises.

Onerous contracts

- 21.11A If an entity has an onerous contract, the present obligation under the contract shall be recognised and measured as a provision (see Example 2 of the appendix to this section).

Future operating losses

- 21.11B Provisions shall not be recognised for future operating losses (see Example 1 of the appendix to this section).

Restructuring

- 21.11C A **restructuring** gives rise to a constructive obligation only when an entity:
- (a) has a detailed formal plan for the restructuring identifying at least:
 - (i) the business or part of a business concerned;
 - (ii) the principal locations affected;
 - (iii) the location, function, and approximate number of employees who will be compensated for terminating their services;
 - (iv) the expenditures that will be undertaken; and
 - (v) when the plan will be implemented; and
 - (b) has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.
- 21.11D An entity recognises a provision for restructuring costs only when it has a legal or constructive obligation at the reporting date to carry out the restructuring.

Contingent liabilities

- 21.12 A contingent liability is either a possible but uncertain obligation or a present obligation that is not recognised because it fails to meet one or both of the conditions (b) and (c) in paragraph 21.4. An entity shall not recognise a contingent liability as a liability, except for provisions for contingent liabilities of an acquiree in a **business combination** (see paragraphs 19.20 and 19.21). Disclosure of a contingent liability is required by paragraph 21.15 unless the possibility of an outflow of resources is

remote. When an entity is jointly and severally liable for an obligation, the part of the obligation that is expected to be met by other parties is treated as a contingent liability.

Contingent assets

- 21.13 An entity shall not recognise a contingent asset as an asset. Disclosure of a contingent asset is required by paragraph 21.16 when an inflow of economic benefits is probable. However, when the flow of future economic benefits to the entity is virtually certain, then the related asset is not a contingent asset, and its recognition is appropriate.

Disclosures

Disclosures about provisions

- 21.14 For each class of provision, an entity shall disclose the following:
- (a) a reconciliation showing:
 - (i) the carrying amount at the beginning and end of the period;
 - (ii) additions during the period, including adjustments that result from changes in measuring the discounted amount;
 - (iii) amounts charged against the provision during the period; and
 - (iv) unused amounts reversed during the period;
 - (b) a brief description of the nature of the obligation and the expected amount and timing of any resulting payments;
 - (c) an indication of the uncertainties about the amount or timing of those outflows; and
 - (d) the amount of any expected reimbursement, stating the amount of any asset that has been recognised for that expected reimbursement.

Comparative information for prior periods is not required.

Disclosures about contingent liabilities

- * 21.15 Unless the possibility of any outflow of resources in settlement is remote, an entity shall disclose, for each class of contingent liability at the reporting date, a brief description of the nature of the contingent liability and, when practicable:
- (a) an estimate of its financial effect, measured in accordance with paragraphs 21.7 to 21.11;
 - (b) an indication of the uncertainties relating to the amount or timing of any outflow; and
 - (c) the possibility of any reimbursement.

If it is **impracticable** to make one or more of these disclosures, that fact shall be stated.

Disclosures about contingent assets

- 21.16 If an inflow of economic benefits is probable (more likely than not) but not virtually certain, an entity shall disclose a description of the nature of the contingent assets at the end of the reporting period, and, when practicable, an estimate of their financial

effect, measured using the principles set out in paragraphs 21.7 to 21.11. If it is impracticable to make this disclosure, that fact shall be stated.

Prejudicial disclosures

- 21.17 In extremely rare cases, disclosure of some or all of the information required by paragraphs 21.14 to 21.16 can be expected to prejudice seriously the position of the entity in a dispute with other parties on the subject matter of the provision, contingent liability or contingent asset. In such cases, an entity need not disclose all of the information required by those paragraphs insofar as it relates to the dispute, but shall disclose at least the following.

In relation to provisions, the following information shall be given:

- (a) a table showing the reconciliation required by paragraph 21.14(a) in aggregate, including the source and application of any amounts transferred to or from provisions during the reporting period;
- (b) particulars of each provision in any case where the amount of the provision is material; and
- (c) the fact that, and reason why, the information required by paragraph 21.14 has not been disclosed.

In relation to contingent liabilities, the following information shall be given:

- (a) particulars and the total amount of any contingent liabilities (excluding those which arise out of insurance contracts) that are not included in the statement of financial position;
- (b) the total amount of contingent liabilities which are undertaken on behalf of or for the benefit of:
 - (i) any **parent** or fellow **subsidiary** of the entity;
 - (ii) any subsidiary of the entity; or
 - (iii) any entity in which the reporting entity has a participating interest,
 shall each be stated separately; and
- (c) the fact that, and reason why, the information required by paragraph 21.15 has not been disclosed.

In relation to contingent assets, the entity shall disclose the general nature of the dispute, together with the fact that, and reason why, the information required by paragraph 21.16 has not been disclosed.

Disclosure about financial guarantee contracts

- 21.17A An entity shall disclose the nature and business purpose of the financial guarantee contracts it has issued. If applicable, an entity shall also provide the disclosures required by paragraphs 21.14 and 21.15.

Appendix to Section 21

Examples of recognising and measuring provisions

This appendix accompanies, but is not part of, Section 21. It provides guidance for applying the requirements of Section 21 in recognising and measuring provisions.

All of the entities in the examples in this appendix have 31 December as their reporting date. In all cases, it is assumed that a reliable estimate can be made of any outflows expected. In some examples the circumstances described may have resulted in impairment of the assets; this aspect is not dealt with in the examples. References to 'best estimate' are to the present value amount, when the effect of the time value of money is material.

Example 1 Future operating losses

- 21A.1 An entity determines that it is probable that a segment of its operations will incur future operating losses for several years.

Present obligation as a result of a past obligating event: There is no past event that obliges the entity to pay out resources.

Conclusion: The entity does not recognise a provision for future operating losses. Expected future losses do not meet the definition of a liability. The expectation of future operating losses may be an indicator that one or more assets are impaired (see Section 27 *Impairment of Assets*).

Example 2 Onerous contracts

- 21A.2 An onerous contract is one in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfil it. For example, an entity may be contractually required under an operating lease to make payments to lease an asset for which it no longer has any use.

Present obligation as a result of a past obligating event: The entity is contractually required to pay out resources for which it will not receive commensurate benefits.

Conclusion: If an entity has a contract that is onerous, the entity recognises and measures the present obligation under the contract as a provision.

Example 3 Restructurings

- 21A.3 [Moved to paragraph 21.11C]

Example 4 Warranties

- 21A.4 A manufacturer gives warranties at the time of sale to purchasers of its product. Under the terms of the contract for sale, the manufacturer undertakes to make good, by repair or replacement, manufacturing defects that become apparent within three years from the date of sale. On the basis of experience, it is probable (ie more likely than not) that there will be some claims under the warranties.

Present obligation as a result of a past obligating event: The obligating event is the sale of the product with a warranty, which gives rise to a legal obligation.

An outflow of resources embodying economic benefits in settlement: Probable for the warranties as a whole.

Conclusion: The entity recognises a provision for the best estimate of the costs of making good under the warranty products sold before the reporting date.

Illustration of calculations:

In 20X0, goods are sold for CU1,000,000. Experience indicates that 90 per cent of products sold require no warranty repairs; 6 per cent of products sold require minor repairs costing 30 per cent of the sale price; and 4 per cent of products sold require major repairs or replacement costing 70 per cent of sale price. Therefore estimated warranty costs are:

CU1,000,000 × 90% × 0 =	CU0
CU1,000,000 × 6% × 30% =	CU18,000
CU1,000,000 × 4% × 70% =	CU28,000
Total	CU46,000

The expenditures for warranty repairs and replacements for products sold in 20X0 are expected to be made 60 per cent in 20X1, 30 per cent in 20X2, and 10 per cent in 20X3, in each case at the end of the period. Because the estimated cash flows already reflect the probabilities of the cash outflows, and assuming there are no other risks or uncertainties that must be reflected, to determine the present value of those cash flows the entity uses a 'risk-free' discount rate based on government bonds with the same term as the expected cash outflows (6 per cent for one-year bonds and 7 per cent for two-year and three-year bonds). Calculation of the present value, at the end of 20X0, of the estimated cash flows related to the warranties for products sold in 20X0 is as follows:

Year		Expected cash payments (CU)	Discount rate	Discount factor	Present value (CU)
1	60% × CU46,000	27,600	6%	0.9434 (at 6% for 1 year)	26,038
2	30% × CU46,000	13,800	7%	0.8734 (at 7% for 2 years)	12,053
3	10% × CU46,000	4,600	7%	0.8163 (at 7% for 3 years)	3,755
Total					41,846

The entity will recognise a warranty obligation of CU41,846 at the end of 20X0 for products sold in 20X0.

Example 5 Refunds policy

- 21A.5 A retail store has a policy of refunding purchases by dissatisfied customers, even though it is under no legal obligation to do so. Its policy of making refunds is generally known.

Present obligation as a result of a past obligating event: The obligating event is the sale of the product, which gives rise to a constructive obligation because the conduct of the store has created a valid expectation on the part of its customers that the store will refund purchases.

An outflow of resources embodying economic benefits in settlement: Probable that a proportion of goods will be returned for refund.

Conclusion: The entity recognises a provision for the best estimate of the amount required to settle the refunds.

Example 6 Closure of a division: no implementation before end of reporting period

- 21A.6 On 12 December 20X0 the board of an entity decided to close down a division. Before the end of the reporting period (31 December 20X0) the decision was not communicated to any of those affected and no other steps were taken to implement the decision.

Present obligation as a result of a past obligating event: There has been no obligating event, and so there is no obligation.

Conclusion: The entity does not recognise a provision.

Example 7 Closure of a division: communication and implementation before end of reporting period

- 21A.7 On 12 December 20X0 the board of an entity decided to close a division making a particular product. On 20 December 20X0 a detailed plan for closing the division was agreed by the board, letters were sent to customers warning them to seek an alternative source of supply, and redundancy notices were sent to the staff of the division.

Present obligation as a result of a past obligating event: The obligating event is the communication of the decision to the customers and employees, which gives rise to a constructive obligation from that date, because it creates a valid expectation that the division will be closed.

An outflow of resources embodying economic benefits in settlement: Probable.

Conclusion: The entity recognises a provision at 31 December 20X0 for the best estimate of the costs that would be incurred to close the division at the reporting date.

Example 8 Staff retraining as a result of changes in the income tax system

- 21A.8 The government introduces changes to the income tax system. As a result of those changes, an entity in the financial services sector will need to retrain a large proportion of its administrative and sales workforce in order to ensure continued compliance with tax regulations. At the end of the reporting period, no retraining of staff has taken place.

Present obligation as a result of a past obligating event: The tax law change does not impose an obligation on an entity to do any retraining. An obligating event for recognising a provision (the retraining itself) has not taken place.

Conclusion: The entity does not recognise a provision.

Example 9 A court case

- 21A.9 A customer has sued Entity X, seeking damages for injury the customer allegedly sustained from using a product sold by Entity X. Entity X disputes liability on grounds that the customer did not follow directions in using the product. Up to the date the board authorised the financial statements for the year to 31 December 20X1 for issue, the entity's lawyers advise that it is probable that the entity will not be found liable. However, when the entity prepares the financial statements for the year to 31 December 20X2, its lawyers advise that, owing to developments in the case, it is now probable that the entity will be found liable.

(a) At 31 December 20X1

Present obligation as a result of a past obligating event: On the basis of the evidence available when the financial statements were approved, there is no obligation as a result of past events.

Conclusion: No provision is recognised. The matter is disclosed as a contingent liability unless the probability of any outflow is regarded as remote.

(b) At 31 December 20X2

Present obligation as a result of a past obligating event: On the basis of the evidence available, there is a present obligation. The obligating event is the sale of the product to the customer.

An outflow of resources embodying economic benefits in settlement: Probable.

Conclusion: A provision is recognised at the best estimate of the amount to settle the obligation at 31 December 20X2, and the expense is recognised in profit or loss. It is not a correction of an error in 20X1 because, on the basis of the evidence available when the 20X1 financial statements were approved, a provision should not have been recognised at that time.