PROCEEDINGS AT HEARING
OF
DECEMBER 4, 2020

COMMISSIONER AUSTIN F. CULLEN

1   **December 4, 2020**

2   **(Via Videoconference)**

3   **(PROCEEDINGS COMMENCED AT 8:30 A.M.)**

4   THE REGISTRAR: Good morning. The hearing is now

5   resumed. Mr. Commissioner.

6   THE COMMISSIONER: Thank you, Madam Registrar.

7   Yes, Mr. Martland.

8   MR. MARTLAND: Thank you, Mr. Commissioner. We begin

9   today with hearings on the topic of

10   quantification by which we refer to the attempts

11   that have been made and the methods used to try

12   to ascertain the size and the extent of money

13   laundering activity in the province. We have

14   three days of evidence on this topic: today,

15   and then the first two days next week.

16   And at the outset what I'd like to do just

17   as a procedural matter -- under rule 33 and

18   consistent with our past practice we have

19   circulated drafts and received helpful input

20   from participants on overview reports. There's

21   two overview reports I'd like to address and ask

22   to please be marked as exhibits at the outset.

23   And I'll propose the first which is the -- it's

24   entitled the "Overview Report: Simplified Text

25   on Quantification of Money Laundering." That

1   that please become the next exhibit.

2   THE COMMISSIONER: Very well. That will be

3   exhibit 322.

4   THE REGISTRAR: Exhibit 322.

5   **EXHIBIT 322: Overview Report: Simplified Text**

6   **on Quantification of Money Laundering**

7   MR. MARTLAND: Thank you. And secondly the fancier

8   version of the same report, if I can call it

9   that, is simply titled "Overview Report:

10   Quantification of Money Laundering." I'll ask

11   that that please become exhibit 323.

12   THE COMMISSIONER: Very well. Thank you.

13   THE REGISTRAR: Exhibit 323.

14   **EXHIBIT 323: Overview Report: Quantification**

15   **of Money Laundering**

16   MR. MARTLAND: And our witness for today,

17   Mr. Commissioner, is Professor Brigitte Unger,

18   who joins us from the Netherlands. We're

19   grateful to have her here.

20   **BRIGITTE UNGER, a**

21   **witness called for the**

22   **commission, affirmed.**

23   THE REGISTRAR: Please state your full name and spell

24   your first and last name for the record.

25   THE WITNESS: My name is Brigitte Unger. It's

1   B-r-i-g-i-t-t-e U-n-g-e-r.

2   And I'm actually sitting in Austria, but

3   that's not so far away from the Netherlands.

4   **EXAMINATION BY MR. MARTLAND:**

5   Q   Well, that brings me to your background,

6   Professor, and as I start I'll be covering your

7   background.

8   MR. MARTLAND: And perhaps I might ask Madam

9   Registrar to bring up tab 1. I'll refer to

10   tab numbers, which is our internal process for

11   being on the same page as to which documents are

12   brought up. Tab 1 should be Professor Unger's

13   CV. And we've simply taken out some address and

14   contact information.

15   Q   Professor Unger, you'll recognize that, with

16   your picture and nationality as Austrian, as

17   being your CV?

18   A   Yes. Yes.

19   MR. MARTLAND: And, Mr. Commissioner, I'll ask that

20   the CV please be marked as exhibit 324.

21   THE COMMISSIONER: Very well.

22   THE REGISTRAR: Exhibit 324.

23   **EXHIBIT 324: Brigitte Unger's curriculum vitae**

24   MR. MARTLAND: And I don't need that displayed on

25   screen. Thank you, Madam Registrar.

 1   Q   Professor, you're a -- and I'll do this a little

 2   bit at highway speed but welcome you to tell me

 3   if I get anything wrong or it there is more to

 4   add. You're a professor of economics at the

 5   Utrecht University School of Economics. You've

 6   held the economics of the public sector chair

 7   since 2002?

 8   A   Yes, that's true.

 9   Q   From 2012 to 2015 you served as the director of

10   the Institute of Economics and Social Sciences

11   in Dusseldorf, Germany?

12   A   That is correct.

13   Q   You have published extensively on the topic of

14   money laundering and conducted a great amount of

15   original research in the area. Your areas of

16   expertise include estimating the size of money

17   laundering by application of the gravity model,

18   the detection of money laundering in the real

19   estate sector as well?

20   A   That is correct.

21   Q   And your work has been published in numerous

22   peer-review journals. I note your CV has quite

23   a list, and it may even be not a comprehensive

24   list of all of your publications.

25   A   That's true.

1   Q   You -- in addition to those impressive

2   credentials, as I said Austrian by birth,

3   proficiency, as I counted, in about six

4   languages?

5   A   That's correct.

6   Q   And I understand there's a rumour you also

7   perform opera or are trained in opera?

8   A   I was trained it opera, but then I switched to

9   economics, so it's 30 years ago.

10   Q   All right. Well --

11   A   I think there's not much left from the opera.

12   Q   We'll stay with economics for today. In 2018

13   you were appointed by the British Columbia

14   Minister of Finance as one of three members of

15   the expert panel in money laundering which

16   submitted a report, which is part of the reports

17   that are already before the Commissioner through

18   our terms of reference entitled "Combatting

19   Money Laundering in BC Real Estate."

20   A   That's correct.

21   Q   And as we move through things, I will ask some

22   questions about that report down the line. What

23   I'd like to start with, Professor Unger, is a

24   fairly broad question, which is why did you set

25   out to study the question and why does it matter

 1   to study the question of trying to measure the

 2   amount of money laundering activity?

 3   A   Yes. I have prepared a little slide for you

 4   from an iceberg, I think which demonstrates a

 5   little bit my passion and my concerns. I was

 6   asked in 2004 by the Minister of Finance of the

 7   Netherlands to, for the first time, measure

 8   money laundering for the Netherlands. It was a

 9   very recent topic. Money laundering became

10   criminalized in 2001, so it was three years old,

11   nobody knew what that was, and I did the first

12   estimate.

13   And if we could share the slide, I want to

14   show what I do because I don't measure. Though

15   it's called measurement, I estimate, and I think

16   it's a big difference there.

17   Q   That is an important distinction. And Madam

18   Registrar is probably already doing --

19   A   Yes.

20   Q   There we go. She's one step ahead. This tab 7.

21   This is a short PowerPoint, Professor, that you

22   prepared. We see on the left side three slides

23   in total?

24   A   Yes, it's mainly this one that I want to show to

25   you.

1   Q   Thank you.

2   A   When I started this research in 2004 there was

3   very little known and there were 52 cases known

4   of money laundering which were very meticulously

5   studied by criminologists. And I call that --

6   when you study known cases or assets confiscated

7   or things which come up, you study, so to speak,

8   the tip of the iceberg. And I think that's what

9   criminologists are very good in. They measure

10   what they find, cases, evidence, things which

11   lawyers like because you need evidence when you

12   want to convict somebody. But to me it was

13   clear at this time that there must be something

14   beneath this tip of the iceberg and we have to

15   find out, is this big or is it small.

16   In 2005 the leading Dutch criminologist

17   Petrus van Duyne announced in the very famous

18   *NRC Handelsblad* that money laundering was just a

19   minor thing, that he had found out with these 52

20   cases it was about 200 million euros. This is

21   nothing which has to be taken serious, just a

22   bunch of criminals which are of minor

23   importance. And this is very clear because when

24   you study the 52 cases of convicted people,

25   these were just small criminals which had been

1   caught in little things.

2   So when I then got this tender of the

3   Minister of Finance of the Netherlands I first

4   went to Australia, the Australian National

5   University, and I was very happy to meet at John

6   Braithwaite Institute a lot of money laundering

7   experts. At this time Australia was then really

8   leading and doing something. And among others

9   they told me well, you know, there is a model,

10   but it's not so good; it's tricky; it's the

11   Walker Model.

12   So what I thought, I have to find out what

13   are the undiscovered cases. What is the black,

14   how big is the black thing which we don't see.

15   So what is underneath the iceberg? And for this

16   you must estimate because you cannot prove it.

17   It's exactly because you don't see it. You see

18   only things which tip up at the tip of the

19   iceberg but you do not see what is underneath.

20   Clearly, as criminologists claim, you could do

21   mystery shopping. So you can send a diver down.

22   That's very important. But you cannot do that

23   in many cases because, for example, in the

24   European Union I work with public money; I

25   cannot go around mystery shopping among the

1   member states who pay me who would not be happy

2   and it would have ethical reasons that you

3   cannot do that so easily, especially in this

4   topic.

5   What also clearly helped were leakages,

6   whistle-blowers who popped out. The Panama

7   Papers, the Paradise Papers, clearly made clear

8   that these undiscovered cases which I estimate

9   are big and are not just a small, tiny thing.

10   So estimation is something which you do which is

11   not precise, you cannot convict anybody on an

12   estimated crime or something, but it is very

13   important to draw the attention of politics that

14   this is a serious issue which has to be tackled.

15   And I think that was the main reason why I did

16   these estimates, to estimate is it a big

17   problem, is the iceberg underneath the tip big,

18   or is it a small problem?

19   And I think with my study that was the

20   first, at least in Europe, that for the

21   Netherlands I made clear this is a serious large

22   problem which politics has to tackle. And

23   therefore I think estimation has a validity on

24   its own. We need measurement. Clearly we want

25   also the true cases and we want the discovered

1   cases, but for a thing which has such a large

2   dark side we also need estimates.

3   Q   And just to pick up on that because that's a

4   very helpful distinction that you've drawn, and

5   indeed the slide we have displayed here is a

6   useful way of describing that concept or that

7   distinction. What's the implication if

8   policymakers proceed based only on the measured,

9   only on the sort of observed, recorded cases and

10   remain unaware of the estimated?

11   A   If they would have followed the criminologists'

12   advice in 2004, they wouldn't have done anything

13   because the advice was just forget about this

14   small amount of minor criminals which are really

15   not important. And my message one week later in

16   the same *NRC Handelsblad* was this is a serious

17   problem which is global and which has to be

18   tackled from several sides. So I had 18 and a

19   half billion at this time and the criminologists

20   had 200 million. There was clearly a big

21   difference. And they were shocked and I was

22   shocked, but clearly we measured different

23   things. I estimated the big underneath of the

24   iceberg and they measured what could be seen.

25   And I think both things are valid, just they

1   should be -- they should complement each other.

2   Q   Thank you.

3   MR. MARTLAND: I'll ask Madam Registrar to please go

4   to the next slide because I think it flows

5   naturally from the one we just looked at.

6   Q   We see here some illustration looking at numbers

7   from 2018 in the Netherlands, that very

8   distinction or difference between what kinds of

9   numbers are generated comparing the estimate

10   from the -- to the measurement?

11   A   Yes, we can clearly show how big is the tip of

12   the iceberg by now. The iceberg that you see is

13   about 1 percent of the underlying problem. We

14   had 171 million euro values included in

15   discovered cases. That was what you can measure

16   and where the evidence is there. And we

17   estimated 16 billion euros to be underneath. So

18   about 1 percent of what we deal with is really

19   coming up at the iceberg, or is criminals that

20   are caught or assets that are confiscated. So

21   this is really a very small tip of the iceberg

22   compared to the underlying problem.

23   MR. MARTLAND: Mr. Commissioner, I'll ask that this

24   PowerPoint please be marked as exhibit 325.

25   THE COMMISSIONER: Very well. 325.

 1   THE REGISTRAR: Exhibit 325.

 2   **EXHIBIT 325: Brigitte Unger's PowerPoint**

 3   **presentation**

 4   MR. MARTLAND:

 5   Q   You described the Walker Model, and I'll spend a

 6   little time taking us to Professor John Walker

 7   in Australia and some the early work that he's

 8   done as well as work that you've done with

 9   Professor Walker. I wonder by way of giving

10   some backdrop or context to it if it might be

11   useful. We're familiar with and we've heard

12   about the recited figure of 2 to 5 percent of

13   global GDP as being a ballpark figure for the

14   amount of money laundering activity. Could you

15   help us understand a little bit about where that

16   figure comes from and then, to the extent you

17   can comment on it, what the basis is for it or

18   what the origins are for that range.

19   A   Well, as far as I know, this number was

20   mentioned by Michel Camdessus from the IMF in

21   1996, I think. We tried to trace where it comes

22   from and we -- John Walker and me, we thought

23   it's a wet-finger approach that it just makes

24   this. But I must say that this number is

25   surprisingly stable. I mean, between 2 and

1   5 percent most of the money laundering estimates

2   are located. So it is, seeing that I think it

3   was really just a guess which he did, not bad.

4   Q   Yeah.

5   A   We are mostly at the lower band of his estimate

6   but seeing that there is nothing behind most

7   likely, it was not such a bad guess.

8   Q   Sure. So an educated guess. I take it from

9   your answer not very clear exactly what it was

10   based on, but, on the other hand, seemingly a

11   number that -- or at least a range that seems to

12   hold up compared to other calculations that are

13   done?

14   A   Yes.

15   MR. MARTLAND: And maybe to pick up on that

16   discussion, Madam Registrar, if we could please

17   bring up tab 6.

18   Q   And I'll just first pause on the first page of

19   this. I mentioned and you mentioned -- maybe

20   we'll go to the second page. That's just the

21   citation information. We see here the title of

22   this paper "Measuring Global Money Laundering -

23   the Walker Gravity Model" from -- authored by

24   yourself plus John Walker from 2009. You

25   recognize this paper?

 1   A   Yes, I do.

 2   MR. MARTLAND: Before I forget to do it,

 3   Mr. Commissioner, if this could please become

 4   exhibit 326.

 5   THE COMMISSIONER: Very well.

 6   THE REGISTRAR: Exhibit 326.

 7   **EXHIBIT 326: Measuring Global Money**

 8   **Laundering - the Walker Gravity Model**

 9   MR. MARTLAND:

10   Q   If we flip down two more pages, so I think this

11   will be PDF page 4, you'll see the second

12   paragraph there reference to 1998, the director

13   of the IMF, whom you just referred to, and the

14   2.5 percent range. And a few lines down you

15   make the comment, you and your co-author:

16   "This seems more a wet finger approach

17   than serious measuring."

18   A   Yes.

19   Q   But you go on to write, as you just commented

20   here:

21   "What has been less well reported over the

22   years is Camdessus' assessment of the

23   importance of understanding the extent and

24   nature of money laundering because of its

25   effects on global economies. With a

1   prescience that resonates in the current

2   international financial crisis --"

3   And I'll pause to say of course you're writing

4   in 2009 after the financial recession in that

5   period of time. And then I'll read this

6   quotation and maybe ask a question or two. This

7   is -- I take it the indented italicized

8   quotation is from the IMF director's speech in

9   1998. Is that right?

10   A   Sorry. I did not --

11   Q   I'm sorry. I'm just double-checking that the

12   indented italicized, that's -- or that's, sorry,

13   the IMF director's speech, isn't it?

14   A   I did not understand the ...

15   Q   I'm sorry. I'm just double-checking.

16   A   Yeah.

17   Q   The -- what we see there in italics, that's also

18   Michel Camdessus -- that's his comment; is that

19   correct?

20   A   Yes, that's correct, yeah.

21   Q   That's what I thought. And so he said as

22   follows:

23   "This scale poses two sorts of risks: one

24   prudential, the other macroeconomic.

25   Markets and even smaller economies can be

 1   corrupted and destabilized. We have seen

 2   evidence of this in countries and regions

 3   which have harbored large-scale criminal

 4   organizations. In the beginning, good and

 5   bad monies intermingle, and the country or

 6   region appears to prosper, but in the end

 7   Gresham's law operates, and there is a

 8   tremendous risk that only the corrupt

 9   financiers remain. Lasting damage can

10   clearly be done, when the infrastructure

11   that has been built up to guarantee the

12   integrity of the markets is lost. Even in

13   countries that have not reached this

14   point, the available evidence suggests

15   that the impact of money laundering is

16   large enough that it must be taken into

17   account by macroeconomic policy makers."

18   Going down just to the end of that quotation.

19   "Potential macroeconomic consequences of

20   money laundering include, but are not

21   limited to: inexplicable changes in money

22   demand, greater prudential risks to bank

23   soundness, contamination effects on legal

24   financial transactions, and greater

25   volatility of international capital flows

 1   and exchange rates due to unanticipated

 2   cross-border asset transfers."

 3   And so your comment about that being

 4   prescient -- maybe I could just ask you to

 5   comment a bit more about that. You describe it

 6   as being a wet finger approach and yet he seems

 7   to have something right in his take on this in

 8   1998.

 9   A   Yes. So the numbers are wet finger. We could

10   not trace any document which would show any

11   calculations which stand behind it. But I think

12   that he, so to speak, had a very good hunch

13   about -- that the size of the problem might pose

14   serious problems to the international global

15   system, one to macroeconomics, then to the

16   soundness of banks and then he mentioned several

17   of the effects that money laundering can have.

18   We have not -- in total my co-author Joras

19   Ferwerda has identified 25 of these effects from

20   the literature, but clearly as we also know very

21   little measure, Joras Ferwerda has very

22   carefully measured the effect on gross domestic

23   product, but it reduces or increases growth when

24   you have a lot of money laundering. And his

25   conclusion were that there are two basically

 1   effects. One is that the money increases growth

 2   because it's money and doesn't distinguish

 3   whether it's dirty or clean money, but that the

 4   crime which might be related with money

 5   laundering dampens again the economy because

 6   rich countries and investors in rich countries

 7   do not like crime. That's -- it's a hindrance

 8   to business.

 9   So in this sense his finding was the plus

10   and the minus somehow weigh out and the net

11   effect is almost zero.

12   Q   There's reference in that speech to the -- to

13   Gresham's Law and it may -- some of it comes

14   from the context, could you help us understand

15   what that law is and describes?

16   A   Yea. Gresham's Law says that bad money always

17   replaces good money. That sounds strange at

18   first, but when you look in the history of money

19   you can see that first we had gold, and then

20   silver replaced the gold, and then -- and now

21   only paper replaces the silver. So it's always

22   the worst money which replaces the good money.

23   And this was, so to speak, also here that you

24   would say if the bad money comes in, the bad

25   money would replace -- eventually the good money

 1   would have more and more criminal money. That's

 2   all -- what it means.

 3   Q   Okay. What I'll do now is turn to -- I'll try

 4   and do this -- it may or may not work, but I'll

 5   try and do this as if we're in a movie with the

 6   broad panorama and then zooming in a little bit

 7   more. So I'm going to begin with the Gravity

 8   Model as it arises in international trade and

 9   move to the money laundering and the origins of

10   Gravity Model with work initially, as you

11   mentioned, by John Walker. And then turning to

12   developments to that work, including a lot of

13   work by you, and then move into some specifics

14   about money laundering.

15   As I do that, Professor, these are all your

16   work and your papers and things you're familiar

17   with that we've identified. We've really made a

18   selection of a group of things that we thought

19   would be useful for leading the evidence. But

20   we have those available, and so at any point if

21   you think it's useful to bring up a

22   particular -- much as you did with the

23   PowerPoint, to bring up a particular slide or

24   display something, please let us know and we'll

25   do our best to bring that up on screen.

 1   MR. MARTLAND: Madam Registrar, I don't need this

 2   paper displayed at present anymore. Thank you.

 3   Q   So to begin with the Gravity Model, and assuming

 4   as a basic fact that people have a sense of

 5   Newton's Law of universal gravitation dating to

 6   the late 1600s, could you help to give us a

 7   sense of what the Gravity Model in international

 8   trade is and how that developed.

 9   A   Yes. I mean, when I first saw the Walker Model

10   I didn't know that it was a Gravity Model. I

11   just found it very fascinating because it was an

12   economic model with very much criminological

13   knowledge because Walker is a criminologist

14   which just studied transport economics at -- I

15   think at London School of Economics or somewhere

16   where he must have learned these, so to speak,

17   inflow/outflow and somehow modelling. But when

18   I then studied it deeper, it appeared to me that

19   it really very much resembled what international

20   trade does in -- as gravity models.

21   And the origin, as you mentioned, of the

22   Gravity Model is Isaac Newton who in the

23   16th century said two masses will appear each

24   other, the apple which fell on the earth when

25   Newton was sitting under the tree to invent the

 1   formula, was dependent on the size of the apple

 2   and on the mass of the earth and on gravity

 3   which pulls it and the distance, how far the

 4   apple is from the earth.

 5   And this same idea was then by Jan Tinbergen

 6   applied to economics in the 1960s. He is the

 7   Nobel Prize winner in economics. And he said

 8   well, the two masses, apple and earth, can also

 9   be two countries with their gross domestic

10   product. So it's the one country, the big --

11   one mass of one country attracts the other one

12   and the gravity can be something like what

13   attracts countries to trade with each other and

14   the distance can be measured in kilometres

15   square.

16   So Tinbergen applied just the same formula,

17   and he was heavily criticized at the beginning

18   that there was no micro foundation, no theory

19   behind. But Tinbergen had one strong advantage:

20   his formula predicted exports and imports, so

21   international trade, ten times better than any

22   existing theoretically founded model. So he had

23   the advantage. One could measure the left side

24   and he could show that experts and imports could

25   be very well predicted.

 1   And so this model has found attention in now

 2   so many fields in economics. We -- with gravity

 3   models we can predict migration flows, tourism

 4   flows. We can predict all kinds of economic

 5   things. And so we thought, well, why not also

 6   money laundering flows. If it can predict flows

 7   so well, why not use it also to measure the dark

 8   side of the economy.

 9   And Walker had this hidden in his model. He

10   just himself also didn't know it was a Gravity

11   Model, but then we together worked and

12   eventually only now it's a real specification of

13   a Gravity Model in our last report because we

14   had to, so to speak, step by step come from his

15   formula to the real gravity formula as it is

16   used now in economics.

17   Q   Great. You say the last iteration or the last

18   step. Are you referring to the very recent --

19   we've managed to time -- unwittingly time your

20   evidence in a way that you're attending for this

21   evidence today about a month after publication

22   of an important paper in the journal *Nature*,

23   which I'll take you to in a little while.

24   That's what you're referring to?

25   A   Yes. I think that helps because it basically

 1   summarizes all the efforts of the last 15 years

 2   we did and clearly was rewarded of being

 3   published in one of the seven top journals of

 4   the world. And I think this gives us, so to

 5   speak, at least some more credibility that

 6   estimating is not just hot air.

 7   Q   And so maybe to pick up on this. You mentioned

 8   Tinbergen and the origins of the Gravity Model

 9   in the context of bilateral trade flows.

10   MR. MARTLAND: And, Madam Registrar, if we could

11   please go back -- I'll be doing this a few

12   times -- to tab 6, which is now exhibit 326, the

13   paper we were just looking at. I think it will

14   be page 12 of the PDF. And I'll be doing my own

15   very simple mathematics to adjust PDF number for

16   page number, Madam Registrar, so I'll do my best

17   to get us to the right place.

18   Q   What we see there under the heading at the top

19   of the page, Professor Unger, the heading

20   "Tinbergen's Ad Hoc Formula" and then in the

21   indented portion there a mathematical formula.

22   Is that the Gravity Model, as you've described,

23   developed by Tinbergen and to address the

24   question of international trade flows?

25   A   Yes, that's the Isaac Newton formula applied to

 1   economics. It says that basically the flows,

 2   for example, export and import between country I

 3   and J, so between two countries, equals the

 4   gravity constant times the mass of country 1,

 5   which can be the gross domestic product of one

 6   country, times the mass of country 2, which can

 7   be the mass -- the gross domestic product of the

 8   other country divided through the distance

 9   between the countries square.

10   Economists are a little bit rough because he

11   has here a little theta, a Greek theta, he

12   doesn't automatically say it's square. He

13   sometimes also took a 1, which makes physics --

14   just blowing us away because the universe would

15   collapse if that would happen in physics, but we

16   were fiddling around clearly also with these

17   coefficients a little bit. And in our last

18   model it's again 2. And also here in this

19   Tinbergen formula it's again 2. The distance

20   square is what Newton also calculated for the

21   universe not to collapse.

22   Q   And so when it comes to the question of

23   measuring trade flows between two countries --

24   and maybe choosing a country in central Europe

25   is a useful way of thinking about this in

 1   part -- what this kind of formula allows one to

 2   do, and you said with some great accuracy, is to

 3   basically put in the data of -- these sorts of

 4   information, the economic mass of the two

 5   countries, the distance between the two

 6   countries. I guess in other circumstance there

 7   may be other variables built in as well. And

 8   then to get a sense, for example, as between

 9   Austria and Italy, given size of economies and

10   distance and perhaps other variables, what kinds

11   of trade flows should we expect.

12   A   Yes. The only thing is clearly where we are

13   modelling around is what is the key, the gravity

14   constants since what attracts, and this is what

15   we later have the attractiveness indicators or

16   everything, which is what attracts the trade

17   between the two? What is the synonym or what is

18   the parallel to Newton's gravity, the

19   attraction? And that's where clearly a lot of

20   fantasy can go in or a lot of modelling, if it's

21   constant or if it's variable or whatever.

22   Q   Okay. And I'll try to make sure I get us to

23   some of these attractiveness qualities that you

24   mentioned because I think that's useful to start

25   to understand what's built in. Why don't I move

1   us towards the question of the Gravity Model in

2   the context of money laundering in particular, a

3   topic you've worked on a great deal. And maybe

4   I'll step back to refer to one of the important

5   papers by John Walker.

6   MR. MARTLAND: Madam Registrar, if we could please

7   switch to having tab 5 on display.

8   And you'll see, Professor Unger, a 1999

9   paper in the *Journal of Money Laundering*

10   *Control*.

11   Madam Registrar, if you just go up a little

12   we'll see the header to the document, thank you.

13   Q   As I say, authored by John Walker. You

14   recognize this paper?

15   A   Yes, I do.

16   MR. MARTLAND: I'll ask this please become exhibit --

17   I think 327.

18   THE COMMISSIONER: Very well.

19   THE REGISTRAR: Exhibit 327.

20   **EXHIBIT 327: *Journal of Money Laundering***

21   ***Control* - How Big is Global Money Laundering?**

22   MR. MARTLAND: And in this paper that's written by

23   Professor Walker -- maybe what I'll do is the

24   first page of the journal article is page 25,

25   and I'll refer to something. If we just go down

 1   please, Madam Registrar, to the bottom we see

 2   under "Introduction."

 3   Q   "This paper begs to differ from Morris's

 4   gloomy assessment and describes a logical

 5   crime-economic model, resembling an

 6   interregional input-output economic model,

 7   which uses a range of publicly available

 8   crime statistics to estimate the amount of

 9   money generated by crime in each country

10   around the world, and then uses various

11   socio-economic indices to estimate the

12   proportions of these funds that will be

13   laundered, and to which countries these

14   funds will be attracted for laundering.

15   By aggregating these estimates, an

16   assessment can be made of the likely

17   extent of global money laundering, and

18   comparisons can be made of each

19   country's --"

20   I'll just flip over.

21   "-- contribution to the overall global

22   problem."

23   Skipping down one sentence:

24   "It is not claimed that the model, thus

25   far, produces accurate estimates of

1   money-laundering flows."

2   So there's Professor Walker really introducing

3   his work but also, I suppose, to some extent

4   signaling some hesitation around this how

5   accurate it can be at that point.

6   A   Yes. John Walker at this time thought it's an

7   input-output model. That's -- I think he had

8   this from transport economics which he must have

9   studied. We think no more -- it's not

10   input/output but it's international flows with

11   the gravity. But in both cases what I liked in

12   John Walker was that he was very transparent.

13   He from the very beginning published on his

14   homepage every step that he did in order to get

15   at these results. That's not very common,

16   especially not in these times when Walker

17   published, that researchers did that. And this

18   means you could replicate the model and you

19   could clearly also see the weaknesses of the

20   model and where the flaws are, but I think this

21   helped a lot. This honesty that he had helped a

22   lot that you could pick it up and you could

23   improve it eventually, step by step.

24   And clearly some of the major criticisms

25   still hold, like the crime -- weak crime

 1   statistics or that that we don't have proceeds

 2   of crime. But I think what he made transparent

 3   was that he made clear this is not -- I'm not

 4   sure here; here I have assumed this; here I

 5   asked a policeman. So he always made very clear

 6   how he had done it. So it's not a magical

 7   outcome of a box where we cannot look into.

 8   Q   And I take from that that the spirit of him

 9   making available, really sort of putting on

10   display the work that went into his assessment

11   or his estimate, his aim to really invite debate

12   and development and refinement of the work.

13   It's not saying, this is the voice of god

14   telling you the answer; this is rather one shot

15   at it and welcoming people to develop it

16   further?

17   A   Yes, I think that's -- he's really the pioneer

18   who has given this to the world to make it

19   better. That's how I see it. Yeah.

20   MR. MARTLAND: All right. And to pick up on the

21   Walker prototype gravity formula -- I'm keeping

22   Madam Registrar hopping today -- if we could go

23   back to tab 6, exhibit 326. At this point

24   page 11, I think, of the PDF. Just up one page

25   from there. There we go.

 1   Q   And we see there just above the heading 3.1

 2   reference to:

 3   "Walker's 'prototype' gravity formula

 4   assumes the following."

 5   And then a formula with a number of indicators.

 6   If you could please help us understand what that

 7   formula is and what it -- how it works.

 8   A   Yes. It says, so to speak, the share of

 9   proceeds of crime that one country, which we

10   call I, which can be Canada, sends to country J,

11   say, the Netherlands, depends on the gross

12   national product or the gross domestic product

13   per capita and times. And then clearly very

14   arbitrarily three times bank secrecy in the

15   country which sends plus government attitude

16   towards money laundering in the country which

17   sends away, whether this country which sends,

18   whether Canada, for example, is a SWIFT country.

19   Minus three times CF was conflict resolution in

20   the country. And CF was something -- it's

21   conflict. CR was corruption. Plus 15 divided

22   by distance between the two countries, Canada

23   and the Netherlands, square.

24   And clearly some of the variables, you

25   wonder why is it 3 times bank secrecy and not 8

 1   times? Why is it plus 15? The plus 15, we

 2   found out, is otherwise some of these shares

 3   would become negative. That would not be so

 4   nice.

 5   So clearly these numbers, 3 times plus 1

 6   time plus 3 times conflict, are arbitrary

 7   numbers, and that's what has been called

 8   guesstimates because you could not estimate it

 9   because to estimate you would need the left side

10   of the -- you would have to know, like Tinbergen

11   knew export and imports, in order to find out

12   what is the true value of these coefficients on

13   the right-hand side.

14   But Walker didn't have that. He wanted this

15   formula to calculate the left side, so he sent

16   -- put in arbitrary numbers, three times and

17   some -- the three times of conflict, one time of

18   corruption, in order to calculate the left side

19   of this equation. So he measured the shares of

20   proceeds of crime that one country sends to the

21   other by using, so to speak, the formula of the

22   Gravity Model on the right side, but by filling

23   in himself the coefficients since he couldn't

24   estimate because the left side was missing to do

25   that.

 1   And I think that was a nice first try to

 2   start getting an idea. And clearly -- I mean,

 3   you will ask him himself, but I'm sure that he

 4   must have fiddled around a lot to find out -- to

 5   the countries that I find very much laundering

 6   countries pop up in the front of my lists and so

 7   on, which is clearly academically not valid.

 8   But I think for a consultant and the pragmatic

 9   way he approached this topic and being the first

10   one to have a global estimate of money

11   laundering, I think it was not so bad. It was a

12   first try how to get at some money laundering

13   proportions in the dark world.

14   Q   And I take it that's -- when you describe that

15   being unlike, let's say, the Tinbergen model,

16   it's because you don't have any sort of -- any

17   bottom line numbers the may one might for

18   international trade flows to say okay, now,

19   we've tested it and can actually comment with

20   some authority about the validity or accuracy of

21   the formula?

22   A   Yes. And I think on the left side

23   export/import, on the right side I measured,

24   then I predict for next year the GDP, which is

25   predicted, and then I can tell you next year's

1   exports. But Walker clearly cannot do that

2   since he must calculate the right side in order

3   to get at the money laundering shares on the

4   left side. He doesn't have the left side in

5   order to start the estimate. So therefore it's

6   very often said -- people say it's a guesstimate

7   because he guessed the three times bank secrecy

8   plus one time government attitude, but he

9   couldn't test whether these indicators are the

10   right ones.

11   Maybe it's just the weather which is more

12   important for money laundering than the

13   government attitude towards money laundering.

14   He cannot prove it here, and he cannot prove how

15   big this coefficient is. So this is -- these

16   are the two things which he had to assume, to

17   guess, in order to do the calculations.

18   Q   What does a SWIFT member refer to?

19   A   Well, at this time it was very important whether

20   you were a SWIFT member. A SWIFT member means

21   that -- I think by now everybody country is a

22   SWIFT member. It means that you could do

23   financial transactions through a system, an

24   electronic system which, so to speak, I think is

25   located in the United States that you could

 1   transfer money also between currencies easily.

 2   And I think by now -- at this time it meant

 3   clearly countries which were not SWIFT members,

 4   you could not launder so easily because you

 5   needed the SWIFT to transfer money

 6   electronically easily. But now we skipped it in

 7   our last measurements because by now I think

 8   every country is a SWIFT member.

 9   Q   So that's some illustration of how these -- the

10   attempt by Walker is one that I think was

11   designed to be built upon, and then indeed is

12   modified as time marches on where you say the

13   sort of ecosystem for who's connected to the

14   electronic financial transfer world has changed

15   so that almost every country is; that's no

16   longer going to be distinguishing.

17   A   Yes. So being electronically easily accessible

18   is not a comparative advantage anymore since

19   everybody is, except Iran, maybe. Yeah.

20   Q   And so picking up on that concept of how this

21   formula gets developed, I'd like to turn to some

22   work that touches on that. I think it's within

23   the same document.

24   MR. MARTLAND: And it should be page 22 of the PDF,

25   Madam Registrar.

 1   Q   And we see here revisions of the Walker Model.

 2   The heading "A Revised Walker Model For the

 3   Netherlands." And then if you could please help

 4   us understand, Professor Unger -- having a look

 5   at the middle of that page, the bold heading for

 6   the formula "Percentage of World Criminal Money

 7   Flowing Into a Country X (The Netherlands)," and

 8   then a series of variables that are set out

 9   there under the formula. If you could please

10   help us understand that what this describes.

11   A   Yes. This formula, just as -- like before in

12   the Walker Model, it says how much money flows

13   from all other countries to country -- to one

14   country, X, the Netherlands in this case. And

15   it say it is depends on the attractiveness of

16   each of the countries and the distance that each

17   country has to the Netherlands. And we have to

18   sum up all these, so to speak, attractiveness

19   for all the countries times the share. It

20   writes that the attractiveness of each country

21   divided to -- by the distance that the country

22   has to the Netherlands times the share that this

23   country has in the whole global system. So this

24   is 1 divided through the sum of all the

25   attractiveness, it's just to find out the share

  1   that each country has in the global money flows

  2   to the Netherlands.

  3   So it's basically just an uglier form of

  4   writing it down. We have it today more nicely

  5   with linear, then it's pluses and that reads

  6   simply nicer. But it basically says only that

  7   the money flowing into a country depends on the

  8   attractiveness of the country and the distance

  9   between this country and the country which sends

 10   the money.

 11   Q   And then just under -- that's very helpful.

 12   Just under the formula there "attractiveness,"

 13   and then we've got a number of things that are

 14   identified. GDP per capita. That seems fairly

 15   self-apparent. That -- maybe I'll spend a

 16   little time of on each of these. But I take it

 17   that describes and I think some of these papers

 18   describe the concept that a richer country with

 19   more economic activity will also be a target

 20   destination that is easier to hide laundered

 21   funds or illicit funds?

 22   A   Yes. Rich countries send more and rich

 23   countries receive more, so money laundering is a

 24   problem of rich countries, not of poor

 25   countries. Except some corrupt leaders who send

1   money away. But in principle it is a rich

2   country's problem. Bank secrecy is important to

3   more -- the bank secrecy is the assumption, the

4   more attractive a country is to launderers. If

5   it has a strict anti-money laundering policy it

6   will deter launderers, so it should be negative.

7   Here again the SWIFT membership to make it

8   electronically possible to transfer money would

9   be -- it would attract somebody to send the

10   money to this country.

11   Then the Minister of finance wanted also the

12   size of the financial markets, whether this

13   doesn't matter, and I think that was a very good

14   idea. That is why we took financial deposits.

15   Is this a country which has a very developed

16   financial market? Then it should attract more

17   launderers because it has the financial

18   expertise to help to spread around funds even

19   further.

20   Conflict we expect should be negative. That

21   countries which have political conflicts will

22   deter money launderers.

23   Corruption was unclear whether it's positive

24   or negative because on the one hand -- and

25   that's what we know also today, corrupt

1   countries send less money to other countries.

2   You can hide in a corrupt country but when money

3   launderers send the money abroad, they want a

4   clean country. They don't like corrupt

5   countries to send the money to because it can

6   too easily disappear and it might be too

7   expensive to bribe somebody. So corruption

8   clearly at the moment deters launderers to send

9   money. We can prove that now in our later

10   studies. Here we just assumed it.

11   Then it was whether the financial

12   intelligence -- whether the country is part of

13   the Egmont Group. The Egmont Group is the group

14   of financial intelligence units, which the unit

15   reunited themselves to fight money laundering.

16   And the idea was this is also an indicator of a

17   stricter anti-money laundering policy and of

18   more information exchanged, which might also

19   deter launderers in the country is in the Egmont

20   Group, but at the same time signal that this

21   country takes money laundering serious and

22   corruption fighting serious, that might again

23   attract.

24   And the only thing which I really added,

25   also you see those in bold is that what -- the

 1   distance is not only the physical distance in

 2   square metres but also some kind of cultural

 3   distance. We can see that if two countries

 4   share the same language, it's much more likely

 5   that you send your money to a country where you

 6   speak the same language than that you would send

 7   as a launderer your money to a country where

 8   you, for example, cannot even write -- read the

 9   language. So Thailand would for me not be the

10   optimal country to send my money laundering

11   money because I couldn't even read my bank

12   account slip if it's in Thai language. So

13   language unites countries to launder jointly.

14   Colonial background. That you have the

15   experience, you come to know the country. The

16   Netherlands had clearly Suriname and Dutch

17   Antilles which are very important colonial

18   background countries where a lot of laundering

19   activities take place.

20   And later on we also took religion -- to

21   share religion which can be very important,

22   especially in the Hindu system, for example,

23   where you have -- if you share Hindu religion,

24   then you have a high trust society, which was

25   one of the reasons to create a very successful

1   underground banking worldwide. That Hindus

2   trust Hindus and you don't need to check much

3   and the sanctioning would be that your family is

4   in shame. So this also is a reason to send

5   moneys to countries where you share the

6   religion.

7   So these are the things which we had just

8   filled in, and again this study was still a

9   guesstimate because we -- again, we did not know

10   the left-hand side of the formula. We had to

11   just fill in the right-hand side and measure.

12   Q   And I think just to put a year on it, the

13   citation just above the formula there is to your

14   paper 2006. That's the date of this particular

15   version of the formula?

16   A   Yes. That's the version which we estimated for

17   the Netherlands. If I remember rightly,

18   religion should also be still part of it. I'm

19   not sure, but this is the formula.

20   Q   Yeah. Okay. Great. Why don't we jump to the

21   latest and greatest, so to speak.

22   MR. MARTLAND: I'd like to bring up, please, tab 3,

23   Madam Registrar.

24   Q   You'll recognize this, Professor. We referred

25   to the very recent paper that's been published

1   in the journal *Nature*. And I think the

2   publication date -- I was just trying to find

3   it, but I think it's October of this year, isn't

4   it?

5   A   Yes.

6   Q   You recognize this paper?

7   A   Yeah, it's very recently. I recognize it, yes.

8   MR. MARTLAND: Okay. I'll ask this please become the

9   next exhibit, Mr. Commissioner.

10   THE COMMISSIONER: Very well. 328, is it, Madam

11   Registrar?

12   THE REGISTRAR: Next number 328, Mr. Commissioner.

13   **EXHIBIT 328: *Nature*: Scientific Reports -**

14   **Estimating Money Laundering Flows With a Gravity**

15   **Model-Based Simulation**

16   THE COMMISSIONER: Thank you.

17   MR. MARTLAND: Thank you.

18   Q   And we will spend a little more time in going

19   over some of the tables and materials in this,

20   but maybe you could help us understand what the

21   aim of this paper was -- you're one of four

22   co-authors on the paper -- what the aim of this

23   undertaking was.

24   A   Yeah, this is basically, you would say, the

25   essence of the 15 years work where we finally

1   can estimate the coefficients because we got

2   data from the Dutch financial intelligence unit

3   to have something on our left-hand side so we

4   could determine the behaviour of money

5   launderers and we could also simulate how money

6   is pumped through the world and therefore

7   measure what is through flow, what is the

8   laundering in a country and what comes from the

9   foreign country and settles in the country.

10   So we had breakthroughs in two respects with

11   this paper thanks to a new data set, and I think

12   thanks to 15 years of joint work.

13   Q   And we will come back to it, but we see there in

14   the abstract "thanks to" -- I think about maybe

15   halfway down, you refer to the data set here:

16   "Thanks to a unique dataset of

17   transactions suspicious of money

18   laundering, provided by the Dutch

19   Institute infobox Criminal and Unexplained

20   Wealth (iCOV), we can empirically test

21   these assumptions with an econometric

22   Gravity Model estimation."

23   That's the source the data you're referring to?

24   A   Yes.

25   Q   And what was the source of data was that that

1   was used in this paper?

2   A   The paper we got from the infobox, which, by the

3   way, I really highly recommended also in our

4   British Columbia report because it's a

5   government unit which collects data where

6   basically several of the authorities work

7   together and provide the data in a closed

8   environment, clearly for privacy reasons. So

9   you have police data there, you have financial

10   intelligence unit data, you have bank data, you

11   have customs data. And you can basically -- not

12   me, but you can, if you sit there as a

13   government authority official, basically have

14   access to all these different datas. That's a

15   thing what Canada misses most that nobody knows

16   what the other authority is doing.

17   And iCOV is this field. We clearly -- we

18   have researchers, we had to apply a year ahead

19   which access we can get, and we got access to

20   six years' suspicious transaction reports of all

21   countries. S which means we got for each

22   country for privacy reason one number we got how

23   much does -- how many suspicious transactions

24   have been sent from Canada to the Netherlands in

25   one year and from the Netherlands to Canada

1   again. And we got this for six years, so we got

2   six observations for Canada and six observations

3   for all other countries, so we got in total

4   2,940 suspicious transaction reports values and

5   volumes amounts for all countries of the world.

6   And this allowed us to basically

7   calculate -- by taking suspicious transaction

8   reports as a reliable indicators of money

9   laundering, we could measure the coefficients.

10   What attracts money launderers? Why do they

11   send money from one country to the other, from

12   Canada to the Netherlands? And then we assumed

13   that the same holds also whether you send it

14   from Luxembourg to Belgium.

15   Q   And so when I think back to the start of this

16   morning's evidence, appreciating it's afternoon

17   where you are, that you described that at some

18   point -- I think it may have been when you had

19   the iceberg on display -- that the case study --

20   number of cases at one point was sort of 52

21   documented cases, a very small picture that

22   might be misleading, it might not be

23   representative of what is really going on. And

24   I take it with the STRs it's almost at the other

25   extreme of having a great -- a high number of

 1   reports and a much better sense across different

 2   parts of the world of what's understood to be

 3   the activity.

 4   A   Yeah, in the Netherlands it's a little bit

 5   different because banks and real estate agents

 6   and lawyers have to report unusual transaction,

 7   and then the financial intelligence unit filters

 8   out suspicious transactions, so it combines it

 9   already with knowledge about criminal records

10   and so on.

11   So it's about 8 percent or 10 percent of all

12   the reports, which are classified suspicious,

13   and these ones we use. So it's basically

14   already a clean file of really suspicious

15   transactions.

16   Q   Got it. So that's an important point. It's not

17   all of the reports that came in, so to speak,

18   but rather what's been identified and really

19   flagged or processed as being in a distinctively

20   suspicious category?

21   A   Yes. And the Netherlands I think is the only

22   country where the financial intelligence unit

23   again filters into suspicious transaction

24   report. FINTRAC also does some filtering they

25   said, but they would not reclassify it as new

1   sorts of reports.

2   Q   And so other FIUs. I take it the terminology

3   there, as you say, may be a little confusing

4   because the terminology of STR might be what is

5   used to capture really the broad total of the

6   reports coming in, so to speak?

7   A   We got also the unusual transaction reports from

8   iCOV, but we saw that the suspicious transaction

9   reports are definitely the better quality data.

10   Q   Yeah. And the paper speaks to that, doesn't it,

11   in terms of that decision that was made. Maybe

12   I can just pause a moment on this -- on what you

13   described as the shared data. And I'm thinking

14   here of almost when you describe it, it sounds

15   like the sort of overlap portion of a Venn

16   diagram. Police, FIU, banks, customs, a number

17   of different agencies or types of officials who

18   are sharing and pooling information not posted

19   on the internet for the world, but for their own

20   purposes. Is that a distinctively Dutch kind of

21   a model?

22   A   Yes, because you need a lot of trust in each

23   other. You need very little concerns with

24   privacy, which in Canada I would say is not so

25   easily established, and you must have a very

1   good relation which is maybe easier in a smaller

2   country to get that really authorities are

3   willing to work with each other. Because

4   usually you have a distinction between the

5   Minister of Finance and the Minister of Justice.

6   That's in almost all countries a separation.

7   It's different methods; it's different goals;

8   it's different something. And that they decide

9   to work together is, I think, a very unique and

10   very Dutch way of trying to tackle the problem.

11   Q   Well, we're getting philosophical. I assume

12   some part of that has to do with the public

13   willingness to trust the state to act in the

14   corrective best interest of the citizens.

15   A   Yes. Yes.

16   Q   As opposed to hesitating over that, maybe.

17   A   The Dutch have extremely high trust in their

18   governments. I mean, Austria, we would not

19   trust our governments as much as the Dutch trust

20   theirs. They haven't had a history of -- which

21   taught them differently, so there is a high

22   trust that the government will also use this

23   data in a serious and good way. Yeah.

24   Q   Do you have a comment on Canada in terms of the

25   effect of not -- of us not having that sort of

 1   ability to pool information from a number of

 2   different agencies?

 3   A   Yes. My impression in Canada was that it's, of

 4   all the countries I know, the most rigid in

 5   sharing data or providing data. There's an

 6   enormous concern of privacy, and clearly money

 7   laundering goes always -- to detect criminals

 8   goes always at some expense in privacy. So

 9   there is a trade-off between privacy and

10   catching criminals. And I think in Canada the

11   privacy has a very high value and that might go

12   at the expense of fighting money laundering.

13   Q   Thank you. So let me turn to this question,

14   please, Professor Unger, the question of how the

15   data are used, you've spent a little time

16   describing this in the context of the paper

17   published in *Nature*, but in general terms using

18   the Gravity Model with a view to estimating the

19   size of money laundering activity, what over

20   time -- maybe starting with John Walker, moving

21   through developments to the Walker Model that

22   you and colleagues have worked on and then

23   building up to this new paper, what kinds of --

24   what are the sources of data that have been

25   used? And as you go through that, if you could

 1   comment a little bit on the strength or weakness

 2   or issues that arise with the data that was

 3   used.

 4   A   Yes. So, I mean, the first improvement was

 5   certainly -- it came from UNODC, the United

 6   Nation Organization on Drugs and Crime, which

 7   provided crime statistics for all countries in

 8   the world. Beforehand there were only a very

 9   few statistics. There were Australian crime

10   statistic. There were -- the weird thing that

11   Scandinavia had the highest crime rates because

12   apparently they reported more SAR than other

13   countries. And so the UNODC tries to basically

14   establish a crime statistic which is comparable

15   and to fill it in for all the countries of the

16   world. So the crime statistics have improved, I

17   think, a lot. Not that there are no caveats,

18   but it has really -- we have more crime

19   statistics.

20   What also came in, I think, where we

21   improved the model enormously is that we got

22   quite good fraud data from the Netherlands. The

23   Netherlands has a very good collection of fraud

24   data, which do not exist in the UNODC data,

25   which do not exist internationally comparable,

1   but there are countries like the UK and the

2   Netherlands which have very decent fraud data.

3   And we had access to the fraud data of the

4   Netherlands to distinguish not only credit card

5   fraud which is good, well kept by all the credit

6   card companies -- they know exactly how much

7   fraud is -- but we got also good data from tax

8   fraud. We got also good data from social

9   security fraud. A little bit less, though,

10   maybe from company fraud.

11   So we could establish how many -- how much

12   crime in the Netherlands is due to fraud. And

13   we came up that about 10 percent of the delicts

14   of the -- which happen are due to fraud in the

15   Netherlands. And with this number -- we assumed

16   the same for all countries of the world times

17   the amount that you earn by fraud -- we were

18   able to have fraud now in a much more serious

19   way measured as Walker maybe with his

20   interrogating some of these only 10 percent

21   response fraud people where he took the data

22   from. So we improved, I think, with crime

23   statistics. We improved with fraud.

24   Where we still are dependent on the old

25   Walker Model is the proceeds of crime. How much

1   do you earn per crime or per recorded crime? We

2   could -- this is really, I think, the task of

3   criminologists. It is not task of economists to

4   go around and interview people to find out what

5   criminals do.

6   But I think -- so the numbers that Walker

7   have that it's about $100,000 per recorded

8   track -- crime and 50,000 per recorded fraud and

9   so on, we still took from Walker, but we

10   adjusted it for each country according to the

11   purchasing power of a country. So 100,000 euros

12   in India will be only worth 1,000 euros because

13   the price difference is so different.

14   What I think is very often misunderstood in

15   the Walker Model is that it refers to recorded

16   crime. That's the only crime data we have. And

17   I think this is not bad at all as long as you

18   know the probability of being caught. If you

19   know for each recorded crime how many are

20   underlying which we don't detect because we know

21   the probability of the detecting somebody, then

22   we have no problem from calculating from

23   recorded crime data to the real crime data.

24   And I think this is feasible and I would

25   urge criminologists to provide such a sort of

1   data. When Walker says we have $100,000 per

2   recorded crime, that's not that he's completely

3   crazy and think $100,000 are spent per crime.

4   He says 100,000 of recorded crime that would

5   amount to about 5,000 euros per crime -- per

6   non-recorded crime here because if the

7   probability is so 20 times higher if you catch

8   only one fifth of -- 5 percent of the criminals.

9   Q   Yeah.

10   A   So his number tries to calculate the underlying

11   crime by giving a number to the recorded crime

12   part. So the criticism which I hear often oh,

13   it's only recorded crime, I think is wrong

14   because Walker tries to estimate the underlying

15   crime, he tries to estimate the money spent on

16   true crime and then multiplies it because only a

17   part of these people are caught.

18   So I think here there's still work to be

19   done. Unfortunately I cannot do it or I would

20   have first to study criminology. But I think

21   this can be done, and this can be done for each

22   country. We need the proceeds of crime and how

23   much money is spent per type of crime.

24   Q   And maybe to put some -- to illustrate a little

25   bit what you are speaking about --

 1   MR. MARTLAND: Madam Registrar, if we could please go

 2   back again to tab 6, exhibit 326.

 3   Q   My touchstone for referring you to things,

 4   Professor, page 20 -- or sorry, 19, I think, of

 5   PDF. We see there table 1 the "Original Walker

 6   Model Estimated Proceeds of Crime and Money

 7   Laundering in Australia, 1994." That's really

 8   the initial numbers that were put on the

 9   estimated proceeds of crime and then broken down

10   by particular crime categories?

11   A   Yes. This is a really long time that I haven't

12   seen it, but he has -- here he has the proceeds

13   of crime. We only take what you spend per

14   recorded crime from his table.

15   Q   Okay.

16   A   So we don't take these proceeds. We just take

17   how much is -- how much money does he calculate

18   for each type of crime.

19   Q   Okay. And I don't think we need that on

20   display --

21   A   This is for the Australia. That's only for

22   Australia, and it wouldn't hold for other

23   countries.

24   Q   Okay. Thank you. I don't think I need that

25   displayed any further. At a general level what

1   kinds of problems arise from reliance on, I

2   guess, police statistics?

3   A   Well, I mean, clearly it's a different method

4   how you collect this data. If you ask policeman

5   they will also not know. Ask -- if I ask you

6   how much money laundering is, we ask each other,

7   and then we end up with a number and nobody

8   really knows more. I think that's the problem

9   of discussing about a problem which is unknown.

10   But I think eventually we have -- now over the

11   last 15 years had a lot of events coming up, we

12   have had criminals where we learned about, and

13   clearly most things have been learned from

14   criminals themselves.

15   In the Netherlands we've had the big luck

16   that we had one big real estate underground

17   banker who confide to the police before he got

18   killed. And the most things we know about money

19   laundering in real estate and how you do it is

20   from this person who confided to the police. It

21   didn't help him -- he confide to the public

22   prosecution but it didn't help him; he got

23   killed. But we have now the Endstra tapes as a

24   wonderful source of seeing things which we would

25   have never detected. Neither the police nor the

 1   public prosecution nor the economists. So we

 2   got -- the most valuable sources we get from

 3   criminals who confide.

 4   Q   So that really amounts to the insiders playbook,

 5   effectively.

 6   A   Yes.

 7   Q   The instruction manual or at least a great set

 8   of insights as to how this in the real world was

 9   actually done.

10   A   Yes.

11   Q   And I take from that comment, even though it

12   might only be one person and an understanding of

13   one case, that the lessons that can be taken

14   from that from your point of view seem quite

15   significant.

16   A   I think we have to rely on whistle-blowers, we

17   have to rely on criminals and we have to -- it

18   must be clear that we -- that it's a big dark

19   field and we will only see bits and pieces. And

20   maybe also the ones that are caught are

21   certainly not the smartest ones because the real

22   top is very difficult to catch. Though, as you

23   could hear two days ago, one of the big Italian

24   Mafia underground bankers was caught, and this

25   is I think happening not very often, that he is

1   accused of having 500 billion euros laundered

2   for the Italian mafia. If you get such a fish,

3   then you really see a lot of instructions coming

4   how he did it.

5   Q   And conversely, I assume a lot of small minnows

6   only gives you the sort of ground-level sense of

7   it but not the insight into the higher-level

8   operation.

9   A   Yes. I think -- I mean, especially in the track

10   sector you know that there is a big amount of

11   footwear of people who -- foot soldiers, as we

12   call them.

13   Q   Right.

14   A   And I think Steven Levitt has really described

15   it very nicely in his book *Freakonomics* in

16   chapter 3 where he writes, why are drug dealers

17   still living with their mom? One wonders why

18   people working below the minimum wage in the

19   drug scene where they can be caught rather than

20   doing something normal. And everybody has to

21   the hope to get to the top, to be the one at the

22   top. And the top apparently can really earn a

23   lot of money, and I think that is the money

24   which is circulating also worldwide and not the

25   foot soldiers' money.

  1   Q   To continue with some discussion about the --

  2   this question about police files and police

  3   statistics.

  4   MR. MARTLAND: Madam Registrar, back to tab 6, if you

  5   might. Page 9 of the PDF.

  6   Q   And the second paragraph there, I'll just read

  7   part of it:

  8   "Police files and the study of them suffer

  9   not only from underestimation of the size

 10   of the problem, but also suffer from the

 11   fact that they are useless for estimating

 12   national or global money laundering,

 13   because they have an intrinsic logical

 14   problem when aggregated. The stricter the

 15   fight against launderers, the more eagerly

 16   the police will record money laundering

 17   cases. When police files are used in

 18   order to make general statements about

 19   laundering, the data would show that money

 20   laundering increases with stricter

 21   anti-money laundering policy. Logically

 22   one would want money laundering to decline

 23   with more and effective policy and not to

 24   increase."

 25   Could you comment on that.

 1   A   Yeah, I think that's still the problem of the

 2   whole evaluation of anti-money laundering policy

 3   till today that the more you fight it, the more

 4   cases you will have and then it's difficult to

 5   say whether it's better now or whether it's

 6   worse because very often we take as indicators

 7   of effective policy the amount of people caught

 8   or the amount of cases which are, so to speak,

 9   treated. But if it's going up, then you think

10   also that money laundering is going up. So it's

11   very -- it's a vicious circle at the moment. We

12   don't really know how can we prove that

13   something became better.

14   The whole anti-money laundering system, and

15   also here the police files, cannot be easily

16   classified whether it's better or worse since

17   the numbers will go up and you don't know, is

18   this now better or is this now worse.

19   Q   Yeah. And so there seems to be something really

20   almost perverse about that outcome, isn't there?

21   That with increased effective anti-money

22   laundering activity, increased investigation,

23   prosecution and so forth, the stats that come

24   out of that paint the picture of a place with a

25   lot more money laundering than maybe the same

1   place five or ten years before where there was

2   not much done at all and the stats suggest there

3   is no money laundering because nothing goes

4   forward as an investigation or prosecution.

5   A   Yeah. We had the very interesting case of

6   Germany which was criticized by the Financial

7   Action Task Force that it had so little reports.

8   Then they made a big effort to report more, and

9   then they got internal in the country the

10   criticism at that money laundering had

11   increased. So whatever they would have done, it

12   would have always been wrong.

13   So I think this is something in the logic in

14   this whole system where we still have to find

15   better indicators or better ways to evaluate it.

16   Q   Let me turn, please, to the question about the

17   assumptions that work their way -- that are used

18   in the Walker and the Walker and Unger Gravity

19   Model dealing with money laundering. And I know

20   in this same paper -- I don't need to go to it,

21   but I can certainly to that if that's helpful --

22   there's a list of assumptions of the Walker

23   Model, or if you'd like to speak more generally

24   because you're an expert in this field about

25   what assumptions are employed in the Gravity

1   Model as used to estimate money laundering.

2   A   Which -- I didn't understand which assumptions.

3   Q   That was a meandering, confused question. I'm

4   asking you about the assumptions. What

5   assumptions are used in the Gravity Model with

6   respect to money laundering?

7   A   Well, the assumption is that you have a global

8   amount of crime. You have proceeds of crime

9   which either have to stay in the country or have

10   to be sent somewhere else. And that you have

11   reasons why to -- either where to keep it in the

12   country, which depends on whether it's a poor

13   country, whether it's -- whether there's

14   corruption in the country, and that a part of it

15   is sent abroad.

16   And then the question is where would you

17   send it. And this depends on what we call

18   attractiveness indicators. And then -- and this

19   is in scientific reports for the first time, the

20   Walker models have only assumed that you place

21   your money once. You send it from one country

22   to the other and that's it. While what we see

23   is that criminals, when they have sophisticated

24   systems, then the pumped money around to hide

25   its origin. So this layering phase, this second

1   phase of money laundering, this pumping around,

2   is on average with the documents that that we

3   have, like the Endstra tapes, about five times

4   that you, so to speak, switch companies or

5   switch bank accounts in countries in order to

6   disguise the origin of your money.

7   And therefore the original Walker Model

8   basically ended too early, we found. And

9   therefore with the scientific reports, the last

10   one which we now have published, we pump the

11   money around five times. So we ran the Walker

12   Model five -- the Gravity Model times. You send

13   to one country, then again you have the

14   question, do you leave it in the country or do

15   you send it on? And so -- until the money five

16   times is parked wherever it ends up after five

17   times. And this, I think, was the new thing.

18   That the original Walker Model only places the

19   money once from one country to the other, and

20   this is not how launderers who really disguise

21   the money would behave.

22   MR. MARTLAND: Professor, this is a funny thing that

23   hasn't happened to us yet, but I see that our

24   Commissioner and perhaps others at the

25   commission staff have somehow disappeared off

1   the Zoom call. So that's -- and I've missed a

2   call from our IT coordinator. I think something

3   might have happened to the -- our connection

4   with the commission people.

5   So I'm going to suggest this. It's 9:41 our

6   time. I don't actually know if you're 8 or

7   9 hours ahead. Why don't we pause for

8   ten minutes.

9   THE WITNESS: Okay.

10   MR. MARTLAND: It may even take a bit longer than

11   that. Why don't -- let's say. 15 minutes. So

12   in about 15 minutes from now, a little before

13   that I'll put my video display back on so you'll

14   have a sense of when we're reconvening. And

15   I'll tell that -- I see on the participants list

16   we've got a number of lawyers, although very few

17   from the commission. So we'll just take a

18   15-minute break, and I have a feeling that

19   somehow we managed to disconnect from our

20   commission staff.

21   I see Shay is appearing on screen. If you

22   don't mind I'll just ask. Shay, I take it that

23   we may have been disconnected.

24   TECHNICAL COORDINATOR: We have been disconnected,

25   and we are just coming back. We are just going

1   to -- I'm not sure if we could take a

2   5-minute recess --

3   MR. MARTLAND: I just suggested in fact a 15-minute

4   break. So I'll just -- usually our registrar

5   and the Commissioner would announce that. But

6   we'll take a 15 minute break and we'll figure

7   this out and reconnect shortly.

8   THE WITNESS: Okay.

9   TECHNICAL COORDINATOR: Thank you very much.

10   **(WITNESS STOOD DOWN)**

11   **(PROCEEDINGS ADJOURNED AT 9:42 A.M.)**

12   **(PROCEEDINGS RECONVENED AT 9:54 A.M.)**

13   THE REGISTRAR: Thank you for waiting. The hearing

14   is now resumed.

15   **BRIGITTE UNGER, a**

16   **witness for the**

17   **commission, recalled.**

18   THE COMMISSIONER: Mr. Martland, we obviously had a

19   problem with our internet connection. I'm not

20   sure whether we lost some evidence through that

21   loss of connection and whether it's necessary to

22   repeat your last question, to start over. But I

23   think you have an idea of where we are at with

24   that.

25   MR. MARTLAND: I think we do now. And I've been

 1   passed a note.

 2   **EXAMINATION BY MR. MARTLAND (continuing):**

 3   Q   Unfortunately, because it was an interesting

 4   answer about the *Freakonomics* book and drug

 5   dealers who still live with their moms instead

 6   of driving Maseratis and living in penthouses, I

 7   guess, that was the answer I think where we cut

 8   off, Professor Unger.

 9   And so just to situate this, I was asking

10   some questions about -- first about the issue

11   about reliance on police statistics and then

12   moving into the assumptions that are used --

13   that have been used in the Walker and then the

14   Walker-Unger Gravity Model as applied to money

15   laundering activities. So why don't I do this.

16   Let's -- it will be repeating a little ground in

17   terms of others who were on the Zoom and thought

18   that we were still connected and realized we

19   missed a little bit. Why don't I simply repeat

20   that question.

21   The question was simply as to the

22   assumptions. If you could please help explain

23   what kinds of assumptions are used and -- used

24   in the Gravity Model.

25   A   Yes. I mean, we assume that there are worldwide

 1   proceeds of crime which have to be either kept

 2   in each country or sent abroad. And clearly for

 3   this we need a good knowledge about how high are

 4   proceeds of crime in each country.

 5   Money launderers decide whether they keep

 6   the money in their country, whether they send it

 7   around. And as I said, from the latest records

 8   we have from the Endstra tapes and other

 9   documentation, we have seen that money

10   launderers, if it's big money, send around the

11   money -- around five times around the globe. So

12   the layering phase, this hiding the origin of

13   the money, we can from many examples see that it

14   takes on average five times. So you want to

15   shift your money from one company to the other

16   in another country with another bank account

17   until finally you park it either back in your

18   own country, because it's disguised, or

19   somewhere in a country which is close.

20   And therefore the assumption that we have

21   changed from the Walker Model is that it's not a

22   once and for all change of money because in his

23   model the proceeds of crime are once transferred

24   to another country, and then they are left and

25   this was, by the way, never criticized. It was

 1   my first criticism when I saw the model is why

 2   is it just -- why is it staying, then, in the

 3   other country? Usually criminals want to bring

 4   the money back to their home country because

 5   that's where they need it. So we have now

 6   basically changed the Walker Model by simulating

 7   five times the Walker Model until the money

 8   comes back or is parked somewhere else, but very

 9   often it comes back, then, to their own country.

10   Q   Let me pick up on that. How do you address the

11   prospect of double counting when you talk with

12   money that's moving through a series of

13   different transactions or movements, potentially

14   across borders?

15   A   You then do have double accounting, even five

16   times accounting and that's why it's very

17   important how often do you pump it around.

18   Because if you pump it around ten times, the

19   money laundering model would be double as much

20   as it is now. So we took basically the

21   documents. We looked, what is the average thing

22   that people do. And we do have double

23   accounting because the money pops up in

24   different countries in different accounts and it

25   is double accounted. So it's -- the proceeds of

 1   crime are once, but the money that is made out

 2   of these proceeds of crime, so the money

 3   multiplier can be much higher. So it is five

 4   times accounting because in the financial world

 5   this is what happens, it gets more and more

 6   money if it's transferred everywhere.

 7   So we should not want to -- if we do not

 8   calculate, then, the proceedings of crime, we

 9   basically follow the money and the money becomes

10   more and more because it pops up in one country,

11   then it's in the next country, so it's in all

12   statistics. And if you add that up it's five

13   times the money which it was originally.

14   So the double accounting was -- I think, the

15   not double accounting was always seen as a

16   positive thing in the Walker Model, but I think

17   it's unrealistic because in the financial world

18   the money can multiply and from one proceeds of

19   crime you can have five times as much financial

20   incomes which you generate.

21   MR. MARTLAND: Maybe to continue on the question

22   about the assumptions that are employed in the

23   Walker Model, I'd like to ask Madam Registrar to

24   please bring up tab 6 yet again, page 16 of the

25   PDF.

1   Q   At the bottom of that page, and we see some of

2   these, I'll just quickly read them out:

3   "-   crime generates income in all

4   countries.

5   -   Income from crime depends on the

6   prevalence of different types of crime

7   and the average proceeds per crime."

8   We'll go over to the next page, please. We see

9   at the top:

10   "-   Sophisticated and organized crimes

11   generate more income per crime than

12   simpler and individual crimes.

13   -   In general, richer countries generate

14   more income per crime than poor ones.

15   -   Income inequality or corruption may

16   support a rich criminal class even in

17   a poor country.

18   -   Not all criminal income is laundered -

19   even criminals have to eat, sleep,

20   drive fast cars, and pay accountants

21   and lawyers."

22   Are those -- those are all described here as

23   being assumptions of the Walker Model. Have

24   they -- has that been static or have those been

25   developed over time?

1   A   Just if you go back to the previous page, what

2   we clearly see is now that for money laundering

3   the income from crime, the types of crime where

4   the proceeds of crime are coming from for money

5   laundering are mainly drugs and fraud. Fraud is

6   the biggest by now, drugs is the second one.

7   And a lot of the tinier crimes, like homicide,

8   and so we have now set to zero because they

9   almost deliver no proceeds of crime. So it

10   is -- there are different types of crime, but I

11   think for really measuring money laundering,

12   drugs and fraud, and clearly lately since tax

13   evasion and tax crime becomes an important

14   thing, that would be the third big bunch which

15   should be added.

16   So we would not need all the nitty-pity

17   crimes. It would be sufficient to have, so to

18   speak, drugs and fraud in order to get at some

19   serious money laundering estimates.

20   Q   Have there been criticisms about the assumptions

21   that are employed for the Gravity Model for

22   money laundering?

23   A   I mean, the criticism we got from the

24   Netherlands when we had all the crimes that

25   Walker had and we had given proceeds on it was

 1   exactly that some of these crimes bring really

 2   nothing and that this would be, so to speak, an

 3   unrealistic assumption.

 4   Q   And I take it -- you mentioned homicide or

 5   murders. I take it that at one level might be

 6   as simple as understanding that very often if

 7   it's the sort of irrational or a crime of

 8   passion, emotion, vengeance what have you, but

 9   not a financial motive?

10   A   Yes. Yes.

11   Q   I suppose there are exceptions.

12   A   Other motives.

13   Q   But often that's what is behind it?

14   A   Yes.

15   Q   And so now turning to the question of what kinds

16   of results come out of the use of the Gravity

17   Model dealing with money laundering. And maybe

18   to proceed with that, still on tab 6, page -- I

19   think 19 of the PDF. This draws on the original

20   Walker Model from about '94, '95. And in fact

21   if we go to the next page, please, we see in the

22   second paragraph there:

23   The most likely figure for money

24   laundering was AUD$3.5 billion per annum,

25   generated by crime in Australia and

1   laundered either in Australia or

2   elsewhere, with the bulk being generated

3   by fraud and then drugs."

4   A little lower down towards the end of the next

5   paragraph:

6   "The process again provided a range of

7   estimates, suggesting that crime in

8   Australia in 2004 generated between

9   AUD$2.8 billion and AUD$6.3 billion, with

10   the most likely figure being in the

11   vicinity of AUD$4.5 billion."

12   So I take those are at the first pass when John

13   Walker did this work the results that his use of

14   the Gravity Model generated for Australia?

15   A   Yes. He did it for Australia. He estimated it

16   for Australia. But clearly from estimating the

17   Gravity Model you always need the numbers from

18   all countries of the world. That's the hassle

19   with the Gravity Model. So you have to know

20   what are the proceeds of crime in India, in

21   China, in order to calculate this model. So

22   even if you calculate it only for Australia, you

23   need the numbers from all the countries in the

24   world. That's always behind the Gravity Model,

25   particularly focused on Australia, and this was

1   what came out of it, yes.

2   Q   And is that as simple as understanding that just

3   as the -- having the apple and the planet earth

4   with the gravitational force, two things that

5   have to be understood in relation to one other.

6   Likewise you're talking here -- I suppose, it

7   also connects to the Tinbergen work with the

8   trade flows between countries, you need have an

9   understanding of flows across borders?

10   A   Yes. But here as it looks -- yeah, if it's

11   already estimated to be laundered, that means he

12   has already the international component in it.

13   So this is -- yeah, this is the first

14   application of the model as he described it to

15   Australia, and clearly what is interesting that

16   he tries to find out also the percentages which

17   are laundered from the proceeds of crime.

18   That's interesting because that's what we are

19   missing basically in all our data. And we still

20   rely on Walker's assumptions, but we have no

21   better data for this.

22   I just see that there's a big divide between

23   criminologists, one that say it's only

24   25 percent, it's not 83. We don't -- as

25   economists we can only apply the data that

 1   criminologists give to us, so we can not produce

 2   these kind of datas ourselves.

 3   Q   Why don't we move to the 2020 paper and

 4   scientific reports.

 5   MR. MARTLAND: Tab 3, exhibit 328, please, Madam

 6   Registrar.

 7   Q   And you've described in an overview way perhaps

 8   a little bit about this study and what you

 9   sought to do. Could you help us explain a

10   little bit more about what the process was and

11   then what kinds of results or findings come

12   about through this paper. And as we do that, if

13   you wanted to direct us to any particular tables

14   or parts of this, that would be just fine.

15   A   Yeah, I think I have prepared some slides that

16   might help, I think, in the beginning.

17   Q   You did. Certainly.

18   MR. MARTLAND: And so, Madam Registrar -- there

19   we go.

20   THE WITNESS: I want to present my co-authors.

21   Professor Getzner was the iCOV project leader of

22   the Technical University of Vienna. But clearly

23   I want to -- especially to put thanks to

24   Dr. Joras Ferwerda, who was my first student,

25   then my PhD student, then my assistant professor

 1   and I hope very soon associate professor, and

 2   PhD candidate Alexander van Saase who did the

 3   calculations for Canada. So this is the team

 4   which stands behind me, always a lot of

 5   additional students, and this is the core team.

 6   So I want to thank them.

 7   And we had, as I said, the data from this

 8   iCOV, from this pool of information box criminal

 9   undeclared wealth from the Financial

10   Intelligence Unit, Netherlands, which provided

11   us the suspicious transaction report data

12   between 2009 and 2014.

13   We could not take later data because if

14   there are still criminals which are reclassified

15   from unusual to suspicious, when there are

16   lawsuits many of the suspicious transaction can

17   still be turned or unusual transactions can turn

18   into suspicious ones. So we cut it off already

19   pretty early, 2014, to leave four years for

20   prosecutors to still reclassify maybe some of

21   the transaction reports. That explains that

22   it's relatively old, but we had new data. We

23   cannot use them because they might still change

24   over time.

25   MR. MARTLAND:

 1   Q   But there's -- I take it from that there's a lag

 2   time before you sort of reach a moment of

 3   saying, we can now have some confidence that

 4   that is a good reporting of the case of the

 5   actual suspicious transactions?

 6   A   Yes. We counted. It's about four years that

 7   reclassification can still take place when there

 8   are some kind of prosecutions going on.

 9   Q   Okay. And now that we have this, and it's very

10   helpful. These are your co-authors on the

11   *Nature* article, the scientific reports paper

12   which has been referred to a few times already.

13   This is a PowerPoint that you prepared. Did you

14   prepare it particularly for this presentation to

15   us today?

16   A   Yes. Whenever I present a paper I have this

17   first sheet with me, clearly.

18   MR. MARTLAND: No, no, I get it. So I'm going to

19   suggest, Mr. Commissioner, if this might be

20   marked as the next exhibit.

21   THE COMMISSIONER: Yes. Very well. Are we at 329

22   now, Madam Registrar?

23   THE REGISTRAR: Yes, exhibit 329.

24   THE COMMISSIONER: Thank you.

25   **EXHIBIT 329: Slides - Scientific Reports 2020**

  1   MR. MARTLAND:

  2   Q   Thank you. And why don't we move on, then.

  3   And, Professor, please direct us within this as

  4   you like, and likewise back to the scientific

  5   reports paper, if you prefer.

  6   A   I wanted to try to explain the Gravity Model in

  7   its modern and new fashion what we did. We had

  8   always this apple falling on Newton's head,

  9   which depends -- falling on the earth. And what

 10   we got, this data, was suspicion transaction

 11   reports, STRs, here in this graph from each

 12   country. So we got -- if country A would be

 13   Canada, we got for each year the value and the

 14   number of suspicious transaction that Canadians

 15   have sent -- of money that Canadians have sent

 16   to the Netherlands. And we got all the data,

 17   how often were they per year, suspicious

 18   transaction related to what -- for what was sent

 19   from the Netherlands to Canada. That would be

 20   country A. And we got this now for each country

 21   of the world. So each suspicious transaction

 22   report per year from each country.

 23   So we knew how much money was involved in

 24   these yearly transaction -- suspicious

 25   transaction reports from each country and we

1   knew also which -- how often were such

2   transaction reports reported to the financial

3   intelligence -- by the Financial Intelligence

4   Unit. So we had --

5   Q   Just to pause, if I might. Sorry, if I might

6   just clarify. In terms of the source for

7   that -- these various reports about STR

8   activity. Is it essentially the national FIU

9   from each of the different countries?

10   A   No, it's only -- we got only from the Dutch

11   FIUs. But all data which their -- basically

12   their classification of suspicious reports which

13   relate to other countries' money. So when there

14   was a report that the Canadian tried to put

15   something on a Dutch bank and that seems

16   unusual, and then classified also suspicious,

17   this would be a suspicious report. And we got

18   all the reports for one year counted together as

19   one observation.

20   Q   Drawing on this -- on the iCOV -- I'm sorry, I'm

21   speaking over you.

22   A   Sorry?

23   Q   I'm sorry, I was speaking over you. You carry

24   on.

25   A   So we did not see each individual report because

 1   that would violate privacy reasons to give us

 2   all suspicious transaction report, but it was

 3   counted -- basically summed up for each year how

 4   much money was sent from Canada to the

 5   Netherlands and how often did this occur per

 6   year. And we got this for all other countries.

 7   So when there was a suspicious report in the

 8   Netherlands that Luxembourg has -- where

 9   Luxembourg was involved, we got this as an

10   entry -- or another country. And the same thing

11   is if the Dutch send something to Canada and

12   that seemed suspicious that was again a

13   suspicious transaction report referring to

14   country A, Canada.

15   So we got basically all the reports for

16   six years but only summed up together per

17   country, so in value and in number of

18   transactions.

19   Q   We see here the description of -- on the left

20   and right sides the push factors and pull

21   factors.

22   A   Yes.

23   Q   Could you help us understand what that's

24   referring to.

25   A   Yeah, this brings us now to the formula which

1   will be also shown on the next page. But the

2   formula now in its modern Gravity Model form is

3   a multiplicative one which says that the money

4   laundering flows, $X_{i,j}$, so between I -- country

5   I and J, depend on different things. And one is

6   how attractive -- how much -- how big is the

7   gross domestic product and how big is the

8   population in the country of origin. If

9   country A is Canada, we would look what is the

10   gross domestic product and what is the

11   population in Canada of those who send the

12   money -- of those money launderers who send the

13   money to the Netherlands.

14   And we would also look what are the

15   characteristics of the destination countries,

16   again the gross domestic product and the

17   population of the countries where the money is

18   sent to from the Netherlands. And then we have

19   a lot of these shared characteristics between

20   Canada and the Netherlands which are the

21   distance between Canada and the Netherlands,

22              $D_{i,j}$, and other what we call preference

23   relationships, which we call -- which are, for

24   example, the cultural distance, speaking the

25   same language, having the same religion, having

1   a common history -- colonial history and

2   background.

3   So in the Gravity Model we have the push

4   factors, what pushes the money out of the

5   country, what pushes it out from Canada to send

6   it to the Netherlands, and that depends on the

7   features of the country which sends. And what

8   pulls it to the other country. That depends on

9   the characteristics of the destination country.

10   And what are the shared characteristics, why

11   it's specific countries which send the money to

12   specific countries.

13   So in the Gravity Model we have the push

14   factor, what pushes the money out; we have the

15   pull factors, where is the money pulled at; and

16   we have the shared characteristics, which are

17   usually distance and cultural, things which the

18   country shares. So the formula there for --

19   basically has the gross domestic product of the

20   origin and of the destination country, it has

21   the population, N, and it has this distance and

22   preferential variables in it.

23   It still looks ugly, but the nice thing, if

24   it's multiplicative, if you take the logarithm,

25   then it's nicely pluses. That's why economists

1   like these ugly multiplicative formulas because

2   then you can, again, have a plus.

3   And if you switch to the next slide, I think

4   we can see it already. Yes. So if we take this

5   formula, yeah, we can for the first time put

6   something on the left side. Rather than just

7   calculating the left side from guesstimates on

8   the right side, we could on the left-hand put

9   the logarithms of the suspicious transaction

10   reports between countries I and J. And we can

11   -- as I said, if you take the logarithm, then

12   all these ugly multiplicative things become a

13   plus.

14   And we can just read it. It's the beta

15   zero, which you have there. Then the Yi

16   potential, beta 1 becomes in the logarithm, plus

17   beta 1 times the logarithm of the border between

18   the two countries, plus the language between the

19   two countries, plus whether they have a common

20   currency, plus whether they have a colonial

21   background, plus whether they share the same

22   religious, plus their distance from each other,

23   plus whether they trade a lot with each other,

24   plus the GDP in the sending country, I, and the

25   GDP in the receiving country, J, plus a

1   logarithm of the per capita GDP in the sending

2   and then the receiving country, plus they are

3   whether they are still Egmont members in the

4   sending country -- so the FIUs intents in the

5   sending country or in the receiving country --

6   whether they have conflict in the sending

7   country or conflict in the receiving country,

8   whether there is corruption in the sending

9   country, corruption in the receiving country,

10   and whether it's a tax haven in the sending

11   country and a tax haven in the receiving

12   countries.

13   These were the variables which we now can

14   test because we have something on the left side

15   and we can therefore determine the coefficients.

16   We can determine under the assumption that

17   suspicious transaction reports are a good proxy,

18   a good way of, so to speak, measuring the

19   behaviour of money laundering, of telling us

20   what -- which countries they prefer. Then we

21   can, from this, look at which countries are more

22   attractive for launderers. We can say something

23   not really about the behaviour, but at least

24   what attracts a money launderer, which country

25   attracts a money laundering and why. Is it

1   corruption, is it GDP or what is it and how

2   strong is this attraction. So we can for the

3   first time test this rather than only make

4   guesstimates.

5   And if you look at the next slide -- but I

6   think --

7   Q   Before we move on I'll just ask this question.

8   I'm tempted to say there's no BS in the formula,

9   but bank secrecy was one of the variables that

10   was included in the earlier Walker model. Is

11   that included -- maybe we can just go back to

12   the last slide, please. Was that sort of

13   included within, let's say, the tax haven or

14   some of these other considerations?

15   A   We had tax havens which we measured with

16   measures of Tax Justice Network, which have

17   indeed the secrecy index, the privacy and so on

18   in it. Yes.

19   Q   I see. So it's included effectively under a

20   different heading?

21   A   Yes.

22   Q   Okay. Thank you. Please carry on with the next

23   slide.

24   A   Okay. Here I would like to insert table 2. I

25   didn't manage -- the table.

 1   Q   That's okay. Let's do it ourselves. So we'll

 2   go to tab 3.

 3   A   And -- yeah, table 2 and table 3 I will need.

 4   Yeah.

 5   MR. MARTLAND: Just bear with me and we'll find the

 6   page number for it. So, Madam Registrar, if we

 7   could please bring up the paper which is tab 3.

 8   Table 2 appears on page 5.

 9   Q   Do I have the right one there?

10   A   Yes.

11   Q   Great.

12   A   So what we can see now is how important are each

13   of these variables, which before were guessed,

14   with three times bank secrecy plus one times

15   government attitude. What are the real numbers

16   now that these coefficients really have, and are

17   they significant. If you have three stars that

18   means it's highly significant, this variable at

19   the 1 percent confidential interval level. If

20   it's two stars, then it's 10 -- then it's

21   5 percent. And if it would be one star, then

22   it's 10 percent. So the ones with the stars are

23   the real important ones. The other ones are not

24   so important, at least not significant

25   regarding -- with regard to ecnonometrics.

1   And in the first column we have the value of

2   suspicious transaction reports. That means, for

3   example, what Canadians send per year as

4   suspicious. The values of Canadians' money sent

5   in a year to the Netherlands. And this -- over

6   six years. And what goes from the Netherlands

7   to Canada, like the same in all other countries.

8   We have at the beginning a border dummy which

9   is -- cannot be interpreted. It's just to

10   correct for distance indicators. So borders are

11   important, but not this coefficient, but all the

12   others we can interpret.

13   You can see that it's highly significant

14   that money launderers speak the same language as

15   the country to which they send the money. It's

16   highly significant. And you see the number of

17   the coefficients. It should be high, a 6

18   point-something coefficient.

19   Whether you have the same common currency

20   was not significant. And this is also very low,

21   so it apparently does not matter whether you

22   send money with Canadian dollars to euro or you

23   whether you just keep it within the euro room or

24   within the American dollar. This seems, at

25   least in our estimation, not important.

 1   Highly significant is that the countries

 2   share a colonial background. And highly

 3   significant is also that they share a common

 4   religious. Distance is also confirmed that the

 5   further away you are, the lower, so to speak,

 6   the chance that you will launder in a country.

 7   So distance deters launderers, as Walker had

 8   predicted, and we confirm it here.

 9   Trade is very important, positively. The

10   more you trade with each other, the more

11   launderers will be attracted to the country with

12   which they trade.

13   Then we have the GDP, the gross domestic

14   product, of the sending country, I, which is

15   highly significant. Which means rich countries

16   will send their money to the Netherlands or to

17   other rich countries. And the receiving

18   country, J, is also rich. So rich countries

19   mainly send money laundered to rich countries.

20   The sending attracts them and the receiving

21   attracts them. So money laundering is a rich

22   country -- the richer the country or the higher

23   the gross domestic product, the economic power

24   of the country, the easier you can hide your

25   money laundering money in a country. In rich

1   countries you can hide it apparently better than

2   in smaller GDP countries.

3   Gross domestic product per capita in the

4   sending country is not significant. In the

5   receiving country it's negative, which means

6   that the poorer the country, maybe also that

7   therefore the corruption control is poorer, the

8   less money will be sent.

9   Then we have Egmont membership, which we can

10   take as an effective anti-money laundering

11   policy because financial intelligence units are

12   working. But that seems to be positive because

13   apparently these are countries which are highly

14   developed which are in the Egmont group. So

15   it's more, I think, the development of the

16   country which counts than that money launderers

17   would particularly love being chased by the

18   police more.

19   Conflict in the sending country is very

20   important. So when you have conflict in your

21   country, you want your money out of the country.

22   That's also confirmed. Conflict in the

23   receiving country is insignificant, and we would

24   also not assume that people want to send their

25   money into conflict countries.

 1   Corruption control is insignificant with our

 2   data, which is a pity. We would be sure that

 3   corruption plays an important role. But

 4   corruption control is zero and minus in the

 5   receiving country, so corruption did not turn

 6   out as an indicator which would really explain

 7   this.

 8   One of our interpretations is that we have

 9   the suspicious transaction reports of the

10   Netherlands and that the results might hold very

11   good for rich countries, for OECD countries, but

12   the further the country from -- its

13   characteristics is away from a Dutch scenario,

14   the less it might hold. So for India or for

15   China or for Africa our results will definitely

16   hold less because their corruption, other things

17   might be much more important than in our

18   developed OECD countries.

19   Tax havens did also not turn out

20   significant, but one explanation clearly is that

21   tax evasion is a very recent topic. In many

22   countries it still has not been implemented that

23   money laundering is also tax crime and it could

24   be simply be that our data in 2014 are too early

25   to really show the importance of tax havens.

1   So for the rest it looks economically very

2   sound; otherwise this journal would certainly

3   not have published our data. You can explain a

4   lot of the variance and all the statistics

5   around it seem solid.

6   So --

7   Q   We'll move -- go ahead.

8   A   It's for the first time that we can say

9   something about what attracts money launderers,

10   at least in the rich countries in the OECD

11   world. And I think that's for the first time a

12   test. It's an estimation. It's not a guess

13   anymore.

14   Q   Yeah. Yeah. Shall we move to table 3.

15   A   Yes.

16   Q   To turn to the ...

17   A   The results.

18   Q   Yes. So it's in the same document. I'm sorry,

19   it's in the same -- tab 3, but simply the next

20   page. There we go.

21   A   Yeah. I mean, as I said, the Gravity Model

22   always has to be calculated for all countries.

23   This one was meant for the Netherlands but

24   clearly we always know the results for all the

25   other countries since it's a model which always

1   needs all the countries of the world. And

2   therefore also Canadian numbers popped up, and I

3   wanted to show this to you.

4   We could -- with this model where we

5   basically have the proceeds of crime which are

6   sent to one country and from there again they're

7   sent to the next one, and this happens five

8   times, we could calculate how much money stays

9   in the country itself, how much is just sent

10   around this five times and how much, finally,

11   comes from a foreign country to the first

12   original country. So how much is foreign money

13   also going to the country.

14   And for Canada clearly our data are -- I

15   mean, at least they are not so inconsistent that

16   total money laundered is $37.8 billion US.

17   That's in Canadian dollars. It's a little bit

18   less than we had estimated in our

19   British Columbia study with other data. This is

20   not now really based on this also suspicious

21   transaction report coefficients which we had

22   measured. But we can see for Canada that still

23   the domestic criminal money is the biggest

24   amount. The throughflow is also high, but the

25   money basically from foreign countries which

1   settles in Canada is lower than I would have

2   thought. So it's only 3.35 billion. That's the

3   permanent money.

4   And my explanation for this, I think, for

5   Canada, not so realistic a picture, is that --

6   again that the data from China are very heavily

7   underestimated. We have the proceeds of crime

8   of China also in the British Columbia study

9   which was too low.

10   Q   Yeah.

11   A   And the secondly thing is clearly that Canada

12   deals with also other countries which are not

13   the rich countries for which I think our study

14   might still underestimate the numbers. So --

15   but at least we could have -- we have some

16   results for all countries in the world to start

17   with, which gives policy at least the advice

18   where to look first. Is it the domestic money,

19   is it just the throughflow which is basically a

20   problem of the reputation of the banks not

21   really harm to the country itself, or is it the

22   danger that criminals settle in the country.

23   I think that the third column is the most

24   dangerous one because you don't want foreign

25   crime in your country expanding. And that's, I

1   think, for Canada, I would say, a lower problem

2   than I would have thought when I did the study

3   there.

4   Q   You say the data from China is low. Why is that

5   the case?

6   A   China reports very low proceeds of crime. It's

7   an international statistic. You have to belief

8   it or not. And very often countries with, let's

9   say, less democracy report very little crimes.

10   They --

11   Q   It's a self-reporting regime. One describes --

12   A   Yeah.

13   Q   One is sort of meant honestly what is going on

14   in one's home?

15   A   Yes. I think we have a clear underestimation of

16   how much crime money is made in the country,

17   yeah.

18   Q   And looking through the list of countries here,

19   there are a few Asian countries. I might even

20   turn to some of the specifics because they tend

21   to reveal some very low amounts of money

22   laundering. I'm thinking of Japan and South

23   Korea in particular. China's not here. Is that

24   because this is an OECD list?

25   A   We said that we think that our results are the

 1   most reliable for the OECD countries. We have

 2   them for all, but still we think the further

 3   away a country comes from the Netherlands -- I

 4   mean, we had only the characteristics of the

 5   Netherlands which we assume holds also for the

 6   other countries to attract launderers. And the

 7   further these countries are different from what

 8   the Netherlands are and what Canada are -- these

 9   are countries which are similar in their

10   democracy regime and their economic development.

11   But the further it's away, I think the less

12   maybe our coefficients about money laundering

13   behaviour holds.

14   As I said, corruption might play a much

15   bigger role in countries which are not so close.

16   So we would need suspicious transaction reports

17   from other countries to compare and to slowly

18   get an improvement also for poorer countries

19   estimates. But so far only the Dutch Financial

20   Intelligence Unit was so generous to share data

21   with you. I don't see FINTRAC doing that, but

22   if it would, we could definitely come up with

23   much better calculations.

24   Q   Why don't you see FINTRAC doing that?

25   A   FINTRAC is very hesitant to share data. FINTRAC

 1   was the only country in the world that I met

 2   which did not provide us their suspicious

 3   transaction reports telling us which are the

 4   major countries from which criminal money flows

 5   in and flows out. Which usually every country

 6   at least double-checked our list of what are the

 7   most important countries from where the money

 8   comes to tell us whether this is right or wrong

 9   according to their own data.

10   We usually do these estimates as a first

11   rough thing, and then we fine-tune with the data

12   of the country. And in Canada this was

13   impossible because we could not get access to

14   this FINTRAC data telling us whether it's true

15   that China sends so little money or whether

16   there's not more suspicion in China, which I

17   would expect is there. So we could not

18   fine-tune the model in the British Columbia

19   report, and clearly we could also not fine-tune

20   it here since we don't have the data.

21   Q   So moving on. Is there more you'd like to cover

22   with this table?

23   A   Sorry?

24   Q   Are there other points you'd like to make in

25   looking at this table? I mean --

 1   A   At the end you can see the overall outcome. We

 2   can see that clearly the biggest launderers are

 3   the United Kingdom and the United States. That

 4   is unchanged. It's the biggest. And for

 5   whom -- for them money laundering is the most

 6   relevant thing to fight. We have an OECD total

 7   estimate and the world total of 2.3 trillion, so

 8   a little bit lower than the Walker Model of

 9   20 years ago.

10   So -- but clearly the outcome of this study

11   is it's the rich countries which launder most,

12   for whom it's the biggest problem. And shared

13   characteristics play an important role,

14   language, colonial background. And clearly the

15   most important is gross domestic product, but

16   clearly that's also in the Gravity Model that

17   the mass is very important to attract each

18   other.

19   MR. MARTLAND: And maybe if we go up just a little

20   bit, please, Madam Registrar, and just to sort

21   of touch on this.

22   Q   That in terms of -- I singled out Japan at -- in

23   the last column, 0.3 percent of GDP is the

24   percentage of total money laundering. That is

25   identified for Japan as one example. We should

 1   pause to just check. That's per annum?

 2   A   I mean, I would expect Japan to be a low money

 3   laundering country.

 4   Q   Right.

 5   A   We haven't heard much about Japan. It's not

 6   very conspicuous. It has usually a very solid

 7   society holding together. I would not -- Japan

 8   would not be one of my suspicious countries.

 9   Q   No. And this sort of fits with that

10   expectation, I suppose. And then in terms of

11   countries that sort of have high percentages of

12   GDP, in particular Israel, 6 percent;

13   Luxembourg, 5.5; Portugal, 4.2; the UK, 4.3. Is

14   that sort of the flip side of the Japan coin

15   that you might have expected in some of those --

16   A   I mean, for us it was surprising. I always had

17   thought that the Netherlands is a throughflow

18   country of money, you see. And we thought that

19   a lot of these throughflows are not going to the

20   Netherlands nowadays but to Belgium and

21   Luxembourg, the neighbours of the Netherlands,

22   that they attract much more. And that might

23   have to do that the Dutch do have a more strict

24   anti-money laundering policy and that the

25   neighbours at the moment are more attractive.

 1   It could even be the first sign of an effective

 2   anti-money laundering policy in the Netherlands,

 3   but we would have to study this in more depth.

 4   But we see that there is a lot of, so to speak,

 5   going on the sides of the Netherlands right and

 6   left. Also Germany. So that could be that the

 7   country which takes money laundering combats

 8   serious has what we call a waterbed effect, that

 9   then the launderers go to the neighbouring

10   countries. That's not -- for the overall money

11   laundering combat that's not very positive, but

12   at least for the country itself it's a sign of

13   success.

14   Q   It's sort of a displacement mechanism.

15   A   Yes.

16   Q   It's not that it ends at, but it rather moves

17   the problem elsewhere.

18   A   Yes.

19   Q   So I think your review of that table was very

20   useful. I was toying with taking you to page 9

21   where you've got the written conclusions and

22   summaries, but I don't know that I need to given

23   your review. Is there more you'd like to cover

24   from the scientific reports paper?

25   A   No, I think we have an overall outcome. It's

1   rich countries. And we have -- we can separate

2   the domestic from throughflow and from the

3   foreign danger to a country.

4   MR. MARTLAND: Great. So why don't we return to

5   tab 10, please, Madam Registrar. I'm keeping

6   you busy today. We -- I think just up one

7   slide.

8   We've reviewed now table 3. And then on

9   your -- if we can go to the slide before please,

10   Madam Registrar. That's great. I'm sorry. I

11   meant the new document, tab 10. There we go.

12   Looking -- and you write -- looking at

13   Canada, you've got the percentages you've just

14   referred to. I think you -- that in fact just

15   summarizes what you've just reviewed with us.

16   A   Yes. What I just also want to clarify clearly,

17   this is without tax evasion money since in 2014

18   tax crime was not a predicate crime in most of

19   the countries we treated. Some countries had

20   tax fraud already as a crime like the

21   Netherlands fraud, but not other tax crimes.

22   And so the stricter criminalization of not

23   paying taxes took place later and my hunch is if

24   you would add this, you might double the

25   numbers. So tax evasion is certainly a very big

1   issue which is still not in our model. It's a

2   drug, tax and fraud model but not a tax evasion

3   money -- or model.

4   And the rest -- as I said already, the

5   biggest launderers are the US and UK, which

6   account for 40 percent of all money laundering

7   in OECD countries. And as I said, for the

8   Netherlands we had to correct. It is

9   throughflow country but less dramatic when

10   compared to its neighbours and it's more the

11   domestic money laundering, which is the Dutch

12   challenge, which we recommended.

13   Q   And you say your hunch is that if one were

14   adding in the tax evasion money that might even

15   double it. I take it that, as you say, that's

16   just a guess, but it's a significant -- your

17   expectation is that would be a significant --

18   A   Yes. We have a lot of tax evasion estimates but

19   not in the Gravity Model. We still did not

20   include in this the Gravity Model. We will do

21   that as next steps because I think that tax

22   evasion attraction might be different from what

23   regular money launderers are doing. I'm not

24   sure if the tax people behave the same way as

25   drug dealers. And we have first to carefully

1   study how much we know about tax evasion flows.

2   Q   Good. Why don't we move to the next slide,

3   please. Thank you.

4   A   I mean, this was a slide meant at a different

5   point it in time, but the question was is money

6   laundering in the real estate sector just very

7   small, unsophisticated things, which we can also

8   see that most of the people that are caught in

9   money laundering in real estate have done a long

10   back method, which means they look for

11   something, they give themselves a loan and just

12   hide this and then use the laundered money.

13   But what I wanted to show is that money

14   laundering can also be a very complex situation

15   when done by professional underground bankers or

16   money laundering bankers. And I had said in the

17   beginning that in the Netherlands we have the

18   Endstra tape from Willem Endstra, who was a real

19   estate magnate and a good banker, and he was

20   blackmailed about Willem Holleeder, who was the

21   person who basically took -- he was basically

22   taking -- kidnapped Mr. Heineken, you know, the

23   beer brewer, the famous Heineken beer brewer.

24   Q   Yes.

25   A   And he became very famous through this. And

1   he -- Willem Endstra was the person who

2   laundered money for Willem Holleeder. He was a

3   real estate agent who did a lot but also

4   laundering for Holleeder, and he became more and

5   more blackmailed by Holleeder and eventually

6   confided to the police. He was the guy who was

7   killed. But he laundered -- for example, Willem

8   Holleeder asked him 3 million euros as a

9   blackmail, and we see how this money was

10   laundered in order to buy a Dutch house finally.

11   So Willem Endstra gave the 3 million. He

12   had to deposit it at Jan-Dirk Paarlberg, who was

13   another real estate agent who laundered for

14   Holleeder. So Willem Endstra had to give these

15   3 million euros to a company -- to transfer to a

16   company Armita BV in the Netherlands, which had

17   a bank account at the Deutsche Bank in the

18   Netherlands.

19   Q   Yeah.

20   A   Then suddenly this belonged to Paarlberg, this

21   Armita BV. All these companies which we see

22   there belonged to Paarlberg, but without any

23   registers nobody could find out. So Armita BV

24   gave -- partially repaid the debt of 3.1 million

25   to Ballados in the Dutch Antilles, which had a

 1   --

 2   Q   And there's an example of a cultural -- or maybe

 3   colonial and cultural --

 4   A   Exactly, we have this colonial background. The

 5   bank account was still in the Netherlands. It

 6   was at Fortis Bank in the Netherlands. This

 7   Ballados gave a loan to code account Tanner, a

 8   code account which closes, then, quickly, which

 9   was in Switzerland at UBS bank. This code

10   account gave a loan of 4 million to Wilbury in

11   Anguilla which again had a Swiss bank account at

12   Clariden. And then Wilbury Anguilla gave a

13   mortgage of 4 million to Royal Investment Bank

14   in the Netherlands, a very distinguished

15   investment bank. And a very distinguished

16   notary public bought, so to speak, a 3 million

17   house in real estate in Amsterdam.

18   And clearly if we look at this type of

19   transaction, we first see that money is around

20   the globe around five times on average, but we

21   also can see that nobody could have ever found

22   out that this investment of Royal Investment

23   Bank through this distinguished notary public

24   had anything to do with blackmail or money

25   laundering at all. So these are the

 1   constructions, I think, that money launderers

 2   use internationally to disguise the money and

 3   that you can in principle at the moment only

 4   find out if a criminal confides this to the

 5   police. My hope is that when we have better

 6   ultimate beneficial ownership registers that we

 7   could look up aha, code Ballados is Paarlberg,

 8   Armita BV is Paarlberg. This all -- the owner

 9   is -- the ultimate beneficial owner is always

10   Jan-Dirk Paarlberg. Then we would have a chance

11   of getting at these kind of complicated

12   constructions.

13   With the actual statistics and the way the

14   police works and the countries work, this kind

15   of money laundering in real estate would have

16   never been found out by any of the authorities.

17   It's just that the criminal himself told us

18   that -- how it was done.

19   Q   Yeah, in this case effectively someone pulls

20   back the curtains, you get an full understanding

21   of the methods and mechanisms used.

22   A   Yes. And I think that money laundering

23   experts -- if a criminal network has a money

24   laundering -- an expert, then this is a very

25   sophisticated, very intelligent man or woman who

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 1              can basically place the money through very many

 2              countries and can disguise it in a very

 3              sophisticated way.  And you would need, so to

 4              speak, very complex structures or cooperation

 5              among all the countries or good registers to

 6              have any chance to do this.

 7                   And here we see that money laundering in

 8              real estate is not just back -- loan-back

 9              methods.  That's the one thing we see again on

10              the tip of the iceberg.  The things that we

11              don't see are these type of constructions where

12              enormous amounts of money can be pumped around

13              and criminologists found out that mostly

14              criminals try -- like to reinvest the money in

15              the home country or have it close to them.  So

16              eventually it will go back to the country of

17              origin.

18         Q    And so you mentioned at the top of this slide

19              BC report page 22.  I don't need to go to it,

20              but that's actually -- this transaction is

21              actually described in the expert panel report

22              which we referred to --

23         A    Yes.

24         Q    -- that you co-authored with professors Maloney

25              and Somerville.
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1   A   Yes.

2   Q   So I don't think we need this on display

3   further, unless, Professor, you had other points

4   to draw from that slide.

5   A   No.

6   MR. MARTLAND: Okay. So we can take that down.

7   Thank you, Madam Registrar. And likewise I

8   think we can take down tab 6 for now, at least.

9   Thank you.

10   Q   So when one turns to the -- you've commented on

11   this somewhat, but the question of how -- what

12   you would say about how well the Gravity Model

13   for estimating money laundering activity works.

14   Drawing on the evidence you've given to date and

15   all of your work obviously in the area, what

16   would you say about that?

17   A   I think it performs well, but it clearly

18   estimates the lower bound of potential money

19   laundering. We see with all the scandals, we

20   see also with the 2 to 5 percent, that it's

21   always a very careful -- it's more the lower

22   bound that we estimate than that we would

23   exaggerate. And lately we see the more precise

24   statistics we use, the lower the amounts get.

25   We had originally 18.5 billion euros for the

1   Netherlands. Now we are at 13 billion. So the

2   more precise data we get, unfortunately the

3   lower we get, though we should get higher since

4   there are more and more scandals which pop up.

5   So I think it's a very low estimate that the

6   model provides, though it has been criticized

7   15 years ago that it's just hot air

8   overestimating everything. I think it's just

9   more the opposite. There are parts of criminal

10   money which are not in the model and which makes

11   the model more -- a very, very low estimate.

12   Q   Do you expect this will be -- in terms of the

13   amount, the level of precision that could ever

14   attain from the estimate process, is it the case

15   that because money laundering is secretive, it

16   is hidden, you're never going to have a nice

17   register of comprehensive statistics over what

18   occurred in a given country or given year? Is

19   it always going to be hard to put precision on

20   the estimate?

21   A   I think it will always be imprecise. That's how

22   they are. But I think we can -- we progressed a

23   lot and we can progress even more. I think in

24   the beginning everybody told me you cannot

25   estimate money laundering. It's impossible.

 1   This cannot be estimated. I mean, we Walker

 2   tried, I tried. We did it. And now we hear

 3   yeah, but you can never be more precise with

 4   this model because there are no proceeds of

 5   crime.

 6   I think the next step is indeed that we get

 7   statistics for each country which are reliable

 8   about the proceeds of crime and the probability

 9   that the police catches specific types of

10   criminals. And I think this can be done. I

11   don't think this is impossible. And we should

12   fill it maybe into a huge matrix where we would

13   look at all these case studies which

14   criminologists did for each country to come up,

15   what do we know of each country's proceeds of

16   crime and probability to catch criminals. And

17   if we could put this in a nice statistic in the

18   UNODC or the UNCTAD or whoever tries to

19   standardize this a little bit, I think this is a

20   feasible thing.

21   And I think it's important to know where the

22   proceeds of crime go through and where they end

23   and where they are a danger and where they are

24   just a hassle. Yeah.

25   Q   Could you comment about the approach of trying

1   to effectively test the level of robustness, if

2   that's the right word of the process in terms of

3   the notion of triangulation. What does that

4   refer to?

5   A   Yeah, I mean, triangulation is things -- the

6   thing that criminologists do. They try to

7   basically from three sides capture a problem and

8   look whether all these estimates are within this

9   triangle. That's at least how I understood

10   triangulation. And that's what we also try. We

11   just look at our estimates, we compare it to

12   other estimates and we look whether we get

13   closer to each other. The optimum would be that

14   we all meet in one point.

15   And I think triangulation is a good thing

16   when you don't know anything because you at

17   least want to sketch how big the problem is and

18   to get closer to truths with this.

19   Q   You've touched on some of the criticisms and

20   critiques of the Gravity Model for estimating

21   money laundering activity, and indeed you've

22   written about that topic in some different

23   papers. Could you comment on what you see as

24   the sort of main critiques or criticisms, first

25   in terms of what the criticism is and secondly

1   in terms of your comments or answer to the

2   critique?

3   A   Yeah. I mean, the major critique comes from

4   people who study the tip of the iceberg who say

5   this is -- Bekerson Dyner [phonetic] called it

6   baked air, hot air, what we are doing; this is

7   just inventing a model and this has nothing to

8   do with reality.

9   So here my argument was we have to look at

10   the underlying iceberg which we don't see and

11   the dark. We cannot see when we look only under

12   the spots where there is light. So we have to

13   basically grasp the dark.

14   The other approach is where -- that it's

15   only recorded crimes, that the statistic has

16   recorded crimes. I still this is not a big

17   problem if we know how much is the probability

18   that a crime is recorded because then we can

19   calculate back the underlying whole amount. And

20   some statisticians even in the Netherlands, I

21   think Petrus van Duyne tried this. If a

22   criminal is catched again and again, you can

23   calculate contingent probabilities and backwards

24   calculate the probability that he's caught. So

25   there are some statistical possibilities. It's

 1   just, again, this is not what economists are

 2   doing. It's criminologist and statisticians who

 3   should provide these probabilities.

 4   The other -- it's simply you have to believe

 5   it or you don't believe it. Many people say oh,

 6   this is just a model and the model is not doing

 7   anything. Clearly -- we have basically no

 8   numbers which are not somehow estimated. If we

 9   look at gross domestic product, which seems to

10   be a very serious number.

11   Q   Right.

12   A   Each gross domestic product contains pieces of

13   estimation of the shadow economy. Because if a

14   criminal buys a crate of beer, he will spend it

15   in the real world, so you will have a real

16   expenditure in the gross domestic product. That

17   means on the other side of the income of the

18   gross domestic product there is something

19   missing because there is no illicit income. You

20   have to basically estimate how much these

21   illegal parts are. So even the whole gross

22   domestic product is based on estimations, at

23   least partly.

24   So I think this, so to speak, very big

25   concern that an estimate has nothing to do with

1   the truth is overlooking that looking only at

2   the truth that you see might make a bigger

3   mistake than trying to estimate the underlying

4   truth, which is in the dark.

5   Q   Yeah, I take that point. That at one level it's

6   a matter of being comfortable with the ambiguity

7   or uncertainty inherent in using an estimate.

8   A   Yes. And I think what we have is

9   whistle-blowers and we have clearly now

10   indications that it's a big problem; it's not a

11   small problem. I think that is proven by --

12   just by history.

13   Q   Well, I have one area I wanted to ask you about

14   before turning to looking at the expert panel

15   report and the work in this province, and

16   then -- just so people know where I'm going,

17   then speaking a little bit -- asking you a

18   little bit about how the Gravity Model -- but

19   more generally how money laundering assessments

20   estimates are talked about in the public

21   discourse, and then finally concluding my

22   questions.

23   To turn to that question first about -- and

24   it's this. Could you help us understand -- we

25   spent a bunch of time on the Gravity Model for

 1   understanding money laundering. We talked

 2   initially about the IMF director doing the wet

 3   finger in the air as a weatherman to figure out

 4   or guess at which way the wind's blowing.

 5   Could you tell us a bit about some of the

 6   other models or other approaches that are used

 7   in an attempt to quantify the extent of money

 8   laundering. And there I'm thinking about as

 9   examples proxy variables, models that attempt to

10   measure the shadow economy focusing on financial

11   data, surveys, extrapolations from capital

12   mobility data, those kinds approaches.

13   A   When I started there was basically Friedrich

14   Schneider's estimate the shadow economy, the

15   dynamic model, and there were clearly proxies

16   which were used to calculate the shadow economy.

17   For example, how much electricity are used on

18   Sundays where you could be sure that this was

19   used for illegal activities or producing

20   something which uses electricity more than the

21   average or these types of estimates.

22   But I studied the Schneider model more

23   carefully but I still think that this model is

24   not so much useable for money laundering because

25   you have to know at least something about money

1   laundering. The Walker Model was produced by a

2   criminologist who knew about money laundering.

3   The Schneider model is produced by an economist

4   who is specialized in the shadow economy, which

5   means basically in illegal work which just --

6   where they just don't want to pay the taxes.

7   And I think that money laundering has

8   different rationality. For example, in the

9   Schneider model corruption is positive. So if

10   you are more corrupt, then you attract more

11   money laundering in his model. I don't believe

12   that. I don't think that money launderers send

13   their money to corrupt countries. Or in the

14   Schneider model the assumption is that as soon

15   as you are inactive, you are part of the shadow

16   economy. That means the older you get, if you

17   have people in pension, you have automatically

18   an increase of the shadow economy because

19   it's -- old people do not count as active.

20   So there are some things built in the

21   Schneider model which I think are not

22   appropriate for estimating money laundering.

23   Though the idea is good, but if you don't know

24   anything about what attracts and what is the

25   cause and what is the consequence, then you get,

1   I think, problems with this model.

2   Still I think for the shadow economy it was

3   the first one which was a worldwide model.

4   Q   And just to pause on that to get the

5   terminology. I think you said "dymimic," but I

6   might have that a bit off. Could you help us

7   understand that what that is.

8   A   The dynamic --

9   Q   I know it's in one of your papers because I read

10   it yesterday.

11   A   It's the dynamic MM -- I forgot. The mimics --

12   it's the call of a model which has dynamics

13   between a cause and the consequence. And

14   underlying this is the money laundering amount

15   because you cannot directly measure it but

16   indirectly from knowing the causes and the

17   consequences. What was it standing for the

18   dynamic MM? I forgot, really.

19   Q   Don't worry. That's okay. It's not a memory

20   test.

21   A   It's -- yeah.

22   Q   What about some of these other attempts or

23   methods that have been used, proxy variables,

24   use of the, for example, surveys?

25   A   I mean, surveys. It's not my field, but I think

1   from surveys you can learn with all the service

2   biases. Where I think -- hold more from is

3   basically those estimates which take financial

4   statistics, wealth statistics, which just look

5   there is something missing. Is this money -- or

6   like what Gabriel Zucman is doing, or what Baker

7   is doing with the global financial intelligence.

8   These are -- they just use not flow statistics

9   or yearly statistics, but they use statistics

10   which calculate the amount of assets that are

11   held by foreigners in a country.

12   And if you look at this, you can clearly

13   also look is this related to the income of these

14   people? Can this be a realistic amount or is it

15   unexplained? And I think in this direction also

16   a lot of good research is being done and I

17   know -- yeah, I think these are the -- to look

18   wealth statistic or to look international

19   financial flow statistics and to calculate what

20   can be wrong with these flows, what doesn't

21   match. I think these are, for me at least, the

22   most promising attempts which are being done and

23   which are developing well in the last ten years.

24   15 years ago there was basically nothing in the

25   field.

1   Q   I'd like to turn to the work that you've done

2   with the expert panel. We've referred to that a

3   few times.

4   MR. MARTLAND: Madam Registrar, if you could please

5   bring up tab 8.

6   And, Mr. Commissioner, we haven't as a

7   general matter been marking the what we've

8   sometimes referred to as the terms of reference

9   reports because this commission's terms of

10   reference lists, I think, four different reports

11   that were directed to be before us in part of

12   the work being done. In this case Professor

13   Unger, as we see on the first page, is one of

14   the authors of the report and I'll be asking

15   some questions using the document.

16   Q   So first, Professor Unger, I'll ask that you

17   please just confirm you recognize that as being

18   the expert panel report.

19   A   Yes, I recognize it as such.

20   MR. MARTLAND: That's an easy question.

21   Mr. Commissioner, I'll ask that that please be

22   marked as the next exhibit given what I've just

23   set out.

24   THE COMMISSIONER: Very well.

25   THE REGISTRAR: The next number is 330,

1   Mr. Commissioner.

2   THE COMMISSIONER: Thank you.

3   **EXHIBIT 330: Combatting Money Laundering in BC**

4   **Real Estate - Expert Panel on Money Laundering**

5   **in BC Real Estate**

6   MR. MARTLAND: Thank you.

7   Q   And I certainly won't be looking to cover all of

8   the aspects of this report in the time we have

9   here, but maybe you could help us by

10   understanding a little bit, Professor Unger, in

11   terms of your role and involvement in this.

12   You're the non-Canadian among the three authors

13   of the report. What was the sort of approach

14   taken in terms of the responsibilities and work

15   done on the report and your role in it, please?

16   A   Yeah, my task in this report was basically to

17   estimate the money laundering amounts for Canada

18   and for British Columbia. I had before done a

19   red flag analysis on real estate for the

20   Netherlands where we identified 25 red flags and

21   could identify suspicious objects, but for

22   Canada the real estate part was done by

23   professor -- Dr. Tsur Somerville. And Professor

24   Maloney was mainly involved clearly in steering

25   and also in, so to speak, everything which

 1   relates to the regulations which have to be --

 2   which we discussed and what we would give as

 3   recommendations to re-regulate the anti-money

 4   laundering system in British Columbia.

 5   Q   Okay. And so what you describe as being the red

 6   flags in real estate portion of this, although

 7   you'd done -- take it from that answer, although

 8   you'd done work like that in the Netherlands, in

 9   fact it's likely to be Professor Somerville

10   who's the lead on that discussion in this

11   report?

12   A   Yes.

13   Q   All right. Thank you. So if you could help us

14   in terms of the work with the Gravity Model in

15   this report to give us a sense, please, of the

16   process in terms of what the data was, what

17   analysis was done, what variation, if you will,

18   of the Walker-Unger Gravity Model was used and

19   then what that led to. And if it's helpful to

20   turn up any parts of this as we do that, I'm

21   certainly happy to do that.

22   A   Okay. Yeah, we should then go to -- I think to

23   the --

24   Q   You want to go to that portion of the report

25   that discusses it? I think it's around page 31

1   of the document itself. There'll be a heading

2   on the left there -- I'm sorry, around 44 of the

3   report, probably page 50 of the PDF, I think. I

4   don't know if that -- oh, there we go. It did

5   work.

6   A   Yes.

7   Q   Good. My conversion for PDF worked for once.

8   So at the bottom of that page we see "Money

9   Laundering Estimates For Canada and BC."

10   A   Yes.

11   Q   Maybe I can just read that out. The text there

12   reads:

13   "As has been extensively reported, there

14   are few estimates of money laundering in

15   Canada and only one estimate of money

16   laundering in BC. Estimates for Canada

17   include a 2001 RCMP estimate of $5 to

18               $15 billion and a 2007 Criminal

19   Intelligence Service of Canada estimate of

20               $50 billion. The methodologies used to

21   develop these estimates are not known. A

22   recent media report suggested an estimate

23   of $1 billion for BC money laundering, but

24   the source of that estimate is unknown."

25   If we then go over, please, to the next page

1   just to continue this and maybe help to situate

2   some discussion of the expert panel report. At

3   the top of that page about three lines down

4   there's reference it a 2015 report from FINTRAC,

5   the Canadian FIU. And then in the indented

6   paragraph a comment from FINTRAC to the effect

7   that:

8   "The task of estimating money

9   laundering globally or within a

10   specific country remains very

11   challenging. Analysis has been done

12   on this issue for approximately 20

13   years; however there appears to be no

14   consensus about which methodology, if

15   any, can be relied on for this

16   purpose."

17   The next comment echoing evidence we've heard:

18   "That is not surprising. Money laundering

19   is by nature secretive and complex ..."

20   And then down to the next paragraph:

21   "Appendix G includes a review of some of

22   the methodologies that have been used to

23   estimate money laundering."

24   And then there's the so-called rule of thumb or

25   "wet finger estimate" the 2 to 5 percent of GDP

1   used by the IMF. And you then have the

2   calculation applied to Canada using Canada's

3   GDP, a range -- the 2 to 5 percent range equals

4          $43 to $147 billion per year for the province of

5   BC, a range on the -- again on the IMF 2 to 5

6   percent of 6 to 14 billion per year.

7   So that's a little bit of the backdrop to

8   this in terms of the report discussing to the

9   extent there had been estimates of money

10   laundering activity in Canada or the province,

11   the little that we know from that work. Is that

12   fair?

13   A   That is fair, yeah.

14   Q   Okay. And so now turning to the Gravity Model

15   estimates. And we see that beginning there, but

16   I welcome you either to speak about it without

17   the report or to refer us to parts of the

18   report, if you prefer.

19   A   Yes. I mean, we can -- if you can scroll down,

20   I think we should somewhere have -- yeah, we

21   describe here and -- we very carefully describe

22   the caveats since Tsur Somerville was very

23   skeptical about this model. So we have to --

24   had to put in each of the caveats that this

25   model might have. But still we thought that

1   this was, so to speak, the best estimate

2   available since the other estimates were very

3   low for Canada and the Camdessus 2 to 5 percent

4   would have been otherwise very high. The

5   5 percent would be 150 billion, which would be

6   really very high.

7   So we decided to use the Gravity Model. And

8   clearly a large margin of error, a lack of

9   measurement. So you find the best criticism of

10   the Gravity Model in this report, I would say,

11   because everything which could be said against

12   the model has been carefully collected.

13   Q   And we'll set it aside but maybe note for

14   present purposes to the extent that this

15   document goes out of its way to put up those

16   caveats and signal that this shouldn't be taken

17   as sort of concrete numbers, there's a separate

18   question of whether it has been taken that way

19   to some extent in the public discourse.

20   A   Yeah, I mean, you see, the original idea of a

21   Gravity Model is that we estimate it for a

22   country or for a province and then fine-tune it

23   with the local data. So we -- usually I never

24   just estimate for a country and publish this for

25   the country. I take the world statistics which

1   we have, the country that we want to analyze,

2   and then I fine-tune it with extra information

3   which we get from this country. And in Canada

4   this was unfortunately not the case. We just

5   did not get access to fine-tuning data. We did

6   not get replies. So it's really fishing in the

7   dark, giving a snapshot with a flashlight. But

8   nobody told us whether this is -- where this

9   model could be corrected and adapted.

10   Like this Chinese underestimation. I'm sure

11   we underestimate, but if we don't have any

12   additional data, I could not fine-tune the

13   model.

14   Q   No.

15   A   Which is a pity. But still I think that the

16   size -- that it's sizeable, that this is still

17   true no matter if we fine-tune or not.

18   Q   And you talk about the access -- the problem of

19   the lack of access to the data that would allow

20   the fine-tuning, one component being the extent

21   to which this relied on, I suppose,

22   self-reporting of criminal flows in China or

23   from China. Were there other impediments on

24   that front, and if so, what that were they?

25   A   I think from the real estate sector we could

1   have certainly gotten -- if we would have gotten

2   some hints where is -- or other sectors which

3   are suspect of money laundering, if we would

4   have gotten some more information, we could have

5   definitely improved the model. So we -- I just

6   gave them the Gravity Model as it is rough with

7   this for the 200 countries.

8   Q   Yeah.

9   A   And this is the first hunch which it can make.

10   MR. MARTLAND: Good. Okay. Should we look, then, to

11   page -- I think 54, Madam Registrar.

12   Q   We see there figure 10, "Estimated Money

13   Laundering in Canada." And then in fact if we

14   go down just a little to have both on display,

15   figure 11, "Comparison of Money Laundering

16   Estimates," the blue line at the bottom being

17   the panel's estimate, the dotted lines being the

18   IMF range of 2 to 5 percent. We see the RCMP

19   number that I've just referred to at the bottom,

20   well under. The CISC, criminal intelligence

21   service, is a point in the -- roughly in the

22   middle of the IMF range.

23   A   Yes.

24   Q   At the top -- go ahead.

25   A   The RCMP estimate was very low. That was my

1   impression. But all the others somehow again

2   match in the Michael Camdessus formula.

3   Q   Figure 10, "Estimated Money Laundering in

4   Canada," but in fact breaking it down with the

5   blue being the province of BC and red being all

6   of Canada.

7   A   Yeah. I mean, that was the first daring thing

8   which we never did before. We had to suddenly

9   estimate the regions. And we said okay, let's

10   first estimate the model for Canada as a whole,

11   and then do as if the six regions which we have

12   built were countries. So they attract money

13   from all over the world or from other regions.

14   They are treated like countries.

15   Q   Right.

16   A   And clearly by doing so you have some variables

17   which won't change. Like the rules of law are

18   the same in Victoria and Ontario and the same --

19   maybe not in Quebec but in all the other

20   provinces. And so you have many of these

21   variables of the Gravity Model which do not

22   change between the provinces, so you have very

23   little ones which change and which therefore

24   will be overemphasized when estimating this.

25   And this is gross domestic product and crime

1   which you have in these regions. So Alberta has

2   very high crime statistics, clearly it pops up

3   much higher because the other variables which

4   usually distract in a Gravity Model cannot --

5   have no influence if they are all the same.

6   And borders -- how you estimate borders

7   between regions is also now very sensitive,

8   though in reality the border might not matter so

9   much between British Columbia and its

10   neighbours.

11   So we don't know how good this model is for

12   regions, but it was the only way that I saw of

13   how to estimate regional money laundering. The

14   outcome I did not find extremely bad. Ontario

15   pop up very big and Alberta popped up big and

16   British Columbia was also number 3, I think, so

17   it did not seem very unrealistic from what I've

18   seen. But clearly to fine-tune this model --

19   and we knew that the estimates in

20   British Columbia were much lower. Peter German

21   had much lower estimates. We had 1 billion

22   maximum money laundering which had been

23   discussed beforehand for British Columbia.

24   But I still think as a first hunch it is

25   good. And what we would need now is a

  1   fine-tuning by using data of FINTRAC of all the

  2   institutions to find out first where can this

  3   money sit. Is it really in real estate or

  4   mostly or not, which we assumed in this brochure

  5   but maybe it's sitting also somewhere else. We

  6   have a study now from Bouchard of the fentanyl

  7   market. But we could basically -- with

  8   additional information we could clearly check

  9   whether this is a realistic number or whether

 10   this is just -- whether the Gravity Model for

 11   regions doesn't work. I don't know. I had no

 12   chance of testing these results here.

 13   Q   Out of interest, is that sort of an approach of

 14   trying to look at -- effectively break down a

 15   single country and I say, what about within

 16   provinces, states, cantons, what have you; do we

 17   get -- can we compare regions within a country?

 18   Is that work that you've done within other parts

 19   of the world?

 20   A   No, it's the first one. And we would -- we

 21   still plan now to do it also for European

 22   regions, to look whether this Gravity Model

 23   performs well for regions. But we haven't done

 24   that yet, so -- and this is really a pioneer

 25   work, and I cannot tell you whether it's good or

1   bad.

2   Q   Right. Sure. Why don't we have a look, please,

3   at the next page of the report. We see here

4   estimated inflows and outflows from Canada, and

5   then a set of numbers. And just to maybe go

6   down to figure 12 may be a useful way. And I

7   take it when you describe the concern about

8   flows to and from Canada and China in

9   particular, or east Asia, we see that figure

10   there of 750 million, which is probably dwarfed,

11   especially when one adds up all of the different

12   figures on the right side for different parts of

13   Europe.

14   A   Right.

15   Q   Does that describe what you were just referring

16   to?

17   A   Yes. I think that the model performs well for

18   the rich countries but that China really

19   underreports because we know even from more

20   money coming from China, so this is definitely

21   too low. But clearly there we would have --

22   need the corrections of FINTRAC or somebody to

23   correct these -- the weights that the different

24   countries have in sending money.

25   Q   And you simply hit a dead end in that hope of

 1   getting that from FINTRAC?

 2   A   Yeah. We -- sorry?

 3   Q   You just hit a dead end with FINTRAC?

 4   A   Yeah, they said that they cannot provide

 5   suspicious transaction reports by country. They

 6   could provide us how much suspicious

 7   transaction, a list, real estate, but they said

 8   that they had no statistic of showing in a way

 9   that they could represent to us to tell us how

10   much money comes from each country into Canada

11   and how much flows out in suspicious transaction

12   reports. Which I find very strange because you

13   must know that as FINTRAC that you know which

14   are the countries which -- where we have to be

15   careful, what -- where is the biggest risk

16   coming from and where do we have to be more

17   careful when the money comes in.

18   So I was very surprised to hear that this is

19   -- that they don't have the data. That this

20   they cannot provide the data, let's say.

21   Q   I understand they said they don't have it. Did

22   they explain why?

23   A   They said that their statistics in such a way

24   that they cannot just pull this out as a table

25   to give us.

1   Q   Okay. And indeed at the bottom of that

2   page -- if we could please scroll down, Madam

3   Registrar -- you've written in the expert panel

4   report:

5   "Canada is the only country for which the

6   Gravity Model has been run that was unable

7   to provide data about the proportion of

8   STRs by country or a ranking of the money

9   laundering threat posed by other

10   countries. FINTRAC indicated that it

11   cannot provide STR data by country because

12   the country associated with a suspicious

13   transaction is not collected in a way that

14   can be analyzed using a database."

15   That's the point you were just making.

16   A   Yes.

17   Q   Have you encountered that sort of answer or

18   hurdle in any of your dealings with other

19   countries around the world?

20   A   Never ever. I mean, there are financial

21   intelligence units which tell us we don't want

22   to tell this or we don't want this being

23   published here because they don't want criminals

24   to be alerted they have them on the lists. But

25   that at least to double-check our results

1   FINTRAC would double-check with us and tell us

2   whether this is right or wrong, I have never

3   experienced it in any other country, no. There

4   was no cooperation.

5   Q   So Canada -- I get it. I take it, then, that

6   Canada stands out as a bit of a lone wolf for

7   being unable to furnish an answer, not

8   individual reports about someone did this -- is

9   reported to have this transaction on this date,

10   but aggregated to say, here is the picture in

11   terms of activity involving France as opposed to

12   England as opposed to the UK?

13   A   Yes. And I think Canada stands out for

14   authorities working in silos. Each one sits on

15   his own data and thinks that sharing data is

16   something bad or dangerous or whatever. These

17   are silos. If FINTRAC sits on its own data on

18   does not communicate with this others, then you

19   cannot combat money laundering if there is no

20   cooperation on the information sharing. Because

21   if each one sits on his own bunch of data and we

22   don't know where are the criminals or what are

23   the criminal countries, we won't get far in a

24   money laundering combat.

25   Q   In terms of the application of the Gravity Model

1   in the context of British Columbia in this

2   report -- and maybe to do this I'll go up,

3   please, Madam Registrar, to page 7 of the PDF.

4   Professor Unger, this is going to be the

5   executive summary, as you see there, of the very

6   same report. If we go down, please, to the

7   bottom of that page. And after that I'll go to

8   the start of the next page. Under

9   "Conclusions," 2:

10   "The amount of money laundering is

11   significant, but it is difficult to

12   measure. The Panel conservatively

13   estimates annual money laundering activity

14   in 2015 in Canada at $41.3 billion

15   ($46.7 billion for 2018) and --"

16   Turning to the province:

17   "-- in BC at $6.3 billion ($7.4 billion

18   for 2018). This is the first money

19   laundering estimate for Canada or a

20   province generated on the basis of

21   economic analysis and modelling and the

22   first estimate of money laundering over

23   time."

24   And then you've got some of the expressions or

25   caveats, I suppose, there including, the comment

1   a few lines down:

2   "... there is no definitive way to measure

3   money laundering activity. The

4   methodology used is likely to generate an

5   estimate of money laundering near its

6   lower bound."

7   I'll just read on since it's open. The next

8   paragraph, number 3:

9   "Money laundering investment in BC real

10   estate is sufficient to have raised

11   housing prices and contributed to BC's

12   housing affordability issue. The data

13   limitations that make it difficult to

14   estimate the level of money laundering

15   make it even more challenging to estimate

16   the allocation of money laundering to

17   specific economic sectors, such as real

18   estate and the impact of that investment

19   on house prices. The Panel cautiously

20   estimates that almost 5 percent of the

21   value of real estate transactions in the

22   province result from money laundering

23   investment. The estimated impact of that

24   would be to increase housing prices by

25   about 5 percent. Successfully reducing

 1   money laundering investment in BC real

 2   estate should have a modest but observable

 3   impact on housing affordability."

 4   That's really walking through, I suppose, the

 5   bottom line conclusions summarized in the

 6   executive summary from this work, but maybe two

 7   components of the work, if I understood your

 8   earlier evidence: your work on the Gravity

 9   Model, which would be the first paragraph, and

10   Professor Somerville's work on real estate. Do

11   I have that?

12   A   Yes. Somerville's basic assumption was that

13   criminal behave exactly like honest people so

14   that they would buy the same amount -- type of

15   houses, the same shares of saving and investment

16   and so on. So under the assumption that they

17   behave the same way, he very carefully had a

18   wide range of estimate in order to not to be

19   wrong. Between zero and a hundred percent was

20   the first guess, which can never be wrong

21   because money laundering in real estate is

22   either nothing or all. And he then narrowed it

23   eventually down under -- being pushed a little

24   bit by me, but it's still a very wide range in

25   which he estimates in order not to be wrong.

1   And how he got to the 5 percent in the

2   prices is shown, but you should ask him himself.

3   He did the study. So I would say it's a very

4   careful study.

5   What I did regret is that we could not

6   really do a red flag analysis. You would need

7   at least 10 or 15 red flags to -- which indicate

8   what is a suspicious house or object in order to

9   look which of these objects have multiple of

10   these red flags because then only it's a

11   suspicious object. So what CMHC did for Canada

12   with 13 red flags I think was a very good study

13   recently, but we did basically only analyze

14   three individual red flags separately. And this

15   is not a red flag analysis. So we did not

16   manage to have a red flag analysis for British

17   Columbia due to lack of data, but I also think

18   it needs more time and more cooperation between

19   the authorities to provide the data to do such a

20   red flag analysis.

21   What CMHC found out for whole Canada was

22   that -- and this is very similar to what we

23   found out in the Netherlands is that objects

24   which have five or six characteristics at the

25   same time, six red flags, are very suspicious.

1   And we found that there are very few objects

2   which have these combined red flags popping up

3   and that these are the ones one should target

4   first. We had the similar results for the

5   Netherlands with our 25 red flags, where we

6   could finally calculate with 17 red flags

7   that -- we could show that most of the objects

8   have only one or two red flags, but when it's

9   more than five it becomes a critical object.

10   What we could still not prove, and nobody

11   can with red flag analysis, is this -- what's

12   happening now money laundering or is this just a

13   heavily suspicious way of speculation or is it

14   another crime. It's very difficult from this

15   approach to tell whether this is money

16   laundering because many of the constructions of

17   money laundering are exactly the same as those

18   of honest transactions. For example, with ABC

19   methods, you drive the price up through a

20   strawman B, but you do that also for speculation

21   to get a higher price. Money launderers do that

22   as well. So it's very difficult finally to say

23   whether objects which are suspicious are really

24   money laundering objects or whether this is just

25   heavy speculation which would lead to the same

1   results.

2   Q   As you did this work in the province of

3   British Columbia and looking -- studying these

4   issues but through the particular prism of

5   what's happening here, you've made a comment

6   about the FINTRAC and the data issue, but were

7   there other things that really stood out to you

8   where there seemed to be something distinctive

9   or different about the issues in this province

10   versus other places you've studied?

11   A   Yeah, I mean what struck me that most of our

12   interviewees thought that money laundering is

13   just -- only cash money. So there seems to be a

14   broad idea that you launder only with slipping

15   your cash underneath the table and giving it to

16   somebody else. That two thirds of money

17   laundering are taking place through the banking

18   system without involving any cash was apparently

19   not still settled in the heads of the

20   interviewees. So this was for me clear that in

21   Canada one thinks money laundering is cash.

22   And I think this is a big mistake because,

23   especially when it's in real estate, in the

24   sophisticated methods, as we have seen, then you

25   can expect that it's certainly through bank

 1   transfers to mortgages but not through cash

 2   money.

 3   Q   Yeah, that's interesting. So I know you've

 4   written about the origins of money laundering

 5   and Al Capone taking proceeds from prohibition

 6   era booze shacks and such to then actually

 7   operate laundromats that actually take and

 8   process money, dollar bills so to speak, the

 9   hard currency. But that answer reflects that

10   there seemed to be an outdated sense particular

11   to people you spoke with in this province that

12   oversimplified it as simply being this sort of

13   notion of bags of dollar bills as opposed to

14   more sophisticated money laundering where there

15   are no bills.

16   A   There's still a controversy between the

17   criminologists working on drugs and me or the

18   people working on finance. When you apparently

19   observe drug deals you see a lot of cash money

20   used, but clearly when you see these confined to

21   the police of Endstra -- in the Endstra tapes,

22   you can clearly see that there was never cash

23   money involved. There was a transfer of money

24   from one company to the other, and then it was

25   pulled around the world. So cash money was not

1   involved there.

2   And therefore we have to be aware that we

3   have two worlds, the cash money world and the

4   financial transaction world. And in real estate

5   clearly both worlds can come together. The cash

6   is easy to identify if somebody comes with cash

7   and slips it under the table and gives it to you

8   as a lawyer to just fake the contract and make

9   it appear as more expensive or cheaper or

10   whatever, but the financial transactions are

11   much more difficult to identify especially by

12   non-financial people. If a real estate agent

13   has to -- has as a client who has a loan-back, I

14   don't know, method from some other country, it's

15   very difficult for him to check whether this is

16   true. And I think this kind of catching the

17   people at the entrance before they park their

18   money finally is a very difficult thing to do in

19   real estate when it's not only cash money.

20   Q   I suppose at one level those comments signal a

21   bit of a big question around -- to the extent to

22   which the FATF international regime, the use of

23   financial intelligence units, the reliance on a

24   reporting model for suspicious transactions, all

25   of that is sort of premised around really sort

1   of gatekeeping when the money's moving into the

2   system. But here, as I hear you describe it, it

3   sounds like you may have important activity that

4   is money laundering but it never passes a gate,

5   so to speak. It wouldn't trip over those trip

6   wires.

7   A   Yeah. Or we have second gatekeepers which are

8   not aware of their role yet, and these are real

9   estate agents, these are the people before the

10   money is parked. They can, again, catch

11   criminals. But it's very difficult when the

12   money has been pumped around several times and

13   they might not consider that as their main task

14   in business. But this is where you could still

15   catch a criminal, if you could -- before he

16   wants to spend the money on a house or on buying

17   because that's the last point where you can

18   still catch him.

19   Q   Thank you very much. I'd like to turn to two

20   different reports which I'll be comparatively

21   very quick with, I expect. And also I'm mindful

22   that I want to conclude in the next roughly 20,

23   25 minutes to permit my colleagues from other

24   participant groups to be asking you some

25   questions.

 1   MR. MARTLAND: So, Madam Registrar, if I could please

 2   ask you to turn up tab 2. This is a UNODC -- we

 3   see there, United Nation Office on Drugs and

 4   Crime report dating to 2011.

 5   Q   If you could please help us understand your

 6   involvement is this as well as Professor

 7   Walker's.

 8   A   Yeah. I was -- I had really a minor role in

 9   this study. I was sitting in the advisory board

10   when John Walker did the calculations together

11   with the UNODC in Vienna on analyzing money

12   flows from and to -- drug trafficking,

13   especially the cocaine market. I must say that

14   my role there was really minor. It's the

15   traditional Walker Model which has been applied.

16   But what I want to notice here is that UNODC

17   together with UNCTAD are very heavily working on

18   creating a systematic way of how to identify and

19   measure illicit financial flows. And the latest

20   studies of UNODC together with UNCTAD, the

21   United Nations conference on trade and

22   something, was that they have now a very

23   systematic way of defining what are illicit

24   financial flows. The advantage is that it's

25   very broad, that it includes all the regular

1   money laundering things like drugs and

2   corruption, that it also includes tax evasion.

3   But that it also includes parts of illicit

4   financial flows which are not really criminal,

5   like aggressive tax planning of big companies,

6   which, for example, have tax avoidance schemes

7   which are at the edge of being criminal or not.

8   So in the grey zone between the legal and the

9   illegal, like setting up a company in a country

10   where you cannot do business just for tax

11   purposes and so on.

12   So UNODC with UNCTAD with these illicit

13   financial flows tries to measure now a very

14   broad thing between tax avoidance, tax evasion

15   and money laundering, including all of them, and

16   there are at the moment very different things

17   going on. So the Gravity Model is only one.

18   There's a lot of things going on with trade

19   mispricing. There is Zucman with his group

20   working on these wealth statistics trying to

21   measure illicit financial flows. So what my

22   impression is at the moment, there is a lot

23   going on. The concept is very broad that you

24   very often do not really know what is being

25   measured because when it can be anything from

1   tax avoidance schemes of big companies in tax

2   havens to tax evasion of individuals to drug

3   dealers to corruption money of big heads of

4   countries, then it gets a really very complex

5   flow of money which is very difficult to

6   identify.

7   But I think it's very important that UNODC

8   and UNCTAD tried to systematize this now and

9   also to collect basically all different types of

10   measurement which happen at the moment. So

11   there's works of Petr Janský of the Charles

12   University of Prague going on. The tax Justice

13   Network is involved. There's a lot of people or

14   groups working now on these illicit financial

15   flows. I'm only the money laundering part, so

16   for me this was always too big, but I just have

17   also been the leader of a big project of

18   combatting fiscal fraud and empowering

19   regulators' coffers for the EU where we have

20   been dealing with tax evasion and this

21   aggressive tax planning. And I can just say

22   it's a huge box which very, very difficult to

23   overlook.

24   MR. MARTLAND: Yeah. Yeah. I'd like to ask that

25   this be marked as the next exhibit, please.

 1   THE COMMISSIONER: Very well. That's -- I think 231

 2   we're at, Madam Registrar?

 3   THE REGISTRAR: It's 331.

 4   THE COMMISSIONER: 331. I beg your pardon.

 5   **EXHIBIT 331: Estimating Illicit Financial**

 6   **Flows, UNDOC - Unger & Walker - October 2011**

 7   MR. MARTLAND: And I'll bring up, please, tab 4.

 8   We'll just go down to the next page, please, at

 9   the start of the article -- journal article in

10   *Applied Economics* 2013.

11   Q   You are one of a handful of co-authors. We see

12   again Professor Ferwerda who's written with you

13   a number of times. The article is "Gravity

14   Models of Trade-Based Money Laundering." And we

15   see there in the abstract:

16   "Several attempts have been made in the

17   literature to measure money laundering.

18   However, the adequacy of these models is

19   difficult to assess, as money laundering

20   takes place secretly and, hence, goes

21   unobserved. An exception is Trade-Based

22   Money Laundering (TBML), a special form of

23   trade abuse that has been discovered only

24   recently. TBML refers to criminal

25   proceeds that are transferred around the

1   world using fake invoices that under- or

2   overvalue imports and exports. This

3   article is a first test on the well-known

4   prototype models proposed by Walker and

5   Unger to predict illicit money laundering

6   flows and to apply traditional gravity

7   models familiar in international trade

8   theory. To do so, we use a dataset of

9   Zdanowicz of TBML flows from the US to 199

10   countries. Our test rejects the

11   specifications of the Walker and Unger

12   prototype models, at least for TBML. The

13   traditional Gravity Model that we present

14   can explain TBML flows worldwide in a

15   plausible manner. An important

16   determinant is trade in which TBML is

17   hidden. Furthermore, our results suggest

18   that criminals use TBML in order to escape

19   the stricter anti-money laundering

20   regulations of financial markets."

21   So there's me taking a great big shortcut to

22   summarize what this paper sets out. Go ahead.

23   A   Yeah, this is this is a very ambitious paper of

24   ambitious students who want to contradict their

25   teacher. Mark Kattenberg, Han-Hsin Chang, they

1   were, so to speak, masters students who wanted

2   to prove that I was wrong. Joras Ferwerda was

3   also very happy so -- to prove that I was wrong.

4   Q   Did they succeed?

5   A   And indeed apparently with trade-based money

6   laundering data we cannot prove our findings of

7   the Gravity Model. So apparently with -- for

8   trade this Gravity Model, though it comes from

9   trade, but for trade-based money laundering, at

10   least with the data -- it's all US data -- we

11   could not confirm our findings. And so this is

12   contradict your teacher, this challenges you and

13   it made it into a refereed journal article.

14   MR. MARTLAND: Okay. I'll ask this please be marked

15   as exhibit -- I think 332, Mr. Commissioner.

16   THE COMMISSIONER: Very well.

17   THE REGISTRAR: 332.

18   **EXHIBIT 332: Gravity Models of Trade-Based**

19   **Money Laundering - *Applied Economics* - Ferwerda**

20   **& Unger - 2013**

21   MR. MARTLAND:

22   Q   So we touched on this a little bit, Professor

23   Unger --

24   And Madam Registrar I don't need the

25   document displayed anymore at this point thank

1   you.

2   Whether it's in this province or through

3   other places and times when you've done work in

4   this field -- I don't know if this is quite Tom

5   Sawyer sitting in the church watching his own

6   eulogy or something, but you must have this

7   moment of writing and taking care to set out

8   findings, and sometimes like the extra-panel

9   report to put caveats on conclusions, only to

10   watch people go forth and seize on, whether it's

11   numbers, conclusions or points in the public

12   discourse that may not always be accurate. Do

13   you have comments about -- I mean, is that the

14   case that you've had that sort of experience?

15   A   I mean, I have the experience that I do a very

16   unusual field in economics. I am a woman, which

17   is also not so usual in economics, and I do

18   unusual things, so I'm used to criticism. And I

19   also like to learn from criticism and I see it

20   as a challenge to do something which others have

21   not done before. And so I am used to being

22   criticized but I'm also used that it takes

23   some years and then the criticism gets lower.

24   In the Netherlands -- what happened in

25   Canada was, for me, déjà vu because 15 years ago

1   the same thing happened in the Netherlands. All

2   this is hot air; what is this model; this

3   blowing up numbers. Now nobody in the

4   Netherlands I think would say this about our

5   Gravity Model anymore. We became, so to speak,

6   established cooperative partners of the public

7   authorities.

8   Lately also the banks invite me because the

9   Netherlands has now a public-private partnership

10   where the five biggest banks and the financial

11   intelligence unit and other government

12   authorities try together to exchange their data

13   and to improve their reporting system. So

14   lately I get even, so to speak, invited by banks

15   to improve the system. And that means that

16   eventually this shock that money laundering was

17   big, contrary to what the leading criminologist

18   said at this time, has somehow gone away.

19   Also my co-author Joras Ferwerda works with

20   Peter Reuter and with criminologists, so we try

21   to, so to speak, learn from other disciplines.

22   But clearly it's an exotic topic and it's

23   interdisciplinary and each discipline has its

24   own standards. The lawyers want truth, the

25   criminologists want to see and the economists

 1   believe in models but usually rely on very good

 2   data which is not here the case because the data

 3   are not the most solid ones.

 4   So I'm used to criticism and I'll willing to

 5   learn, but I'm still convinced that what I'm

 6   doing has helped to make money laundering a more

 7   important topic to be taken serious and that we

 8   can -- it offers for many students all the very

 9   original ways what they can still do. They can

10   study money laundering networks. And if you

11   remove the money launderer, what happens to the

12   stability of network. You can do a lot of

13   interesting, cool stuff also in economics with

14   it, so I like this topic.

15   Q   Well, it seems to me philosophically your

16   approach isn't to say, here's as a final

17   pronouncement a model or a theory that is fixed

18   and to be taken or rejected, but really to

19   engage and to invite improvement, challenge,

20   even your own students, the last article I just

21   referred you to, effectively taking you on to

22   say, this model doesn't work over here with

23   TBML.

24   A   Yes. I also think that TBML is really a very

25   different topic. By the way, the Dutch customs

1   were the only authority which never gave us

2   access to their data, so we could not test this

3   sandwich [phonetic] data also for the Dutch

4   data. Maybe now we might succeed, but that was

5   the only authority which stubbornly refused

6   access to their data. And so trade-based money

7   laundering, which I think in the Netherlands

8   will be an important thing because its country

9   of trade since the 15th century is still in the

10   dark.

11   Q   Yeah. So looking to sort of conclude with my

12   questions, do you have a sense of where you

13   think the most important work should come in the

14   future? You talked about different aspects of

15   building on the Gravity Model, the work that

16   you've done, that Professor Ferwerda has done,

17   that Professor Walker's done and others. What

18   do you see is needed on the future on that

19   front?

20   A   I mean, from the criminologists we need, as I

21   mentioned, the proceeds of crime and the

22   probability of being caught for each country in

23   the world.

24   From the economists we need, I think, a

25   better grasp about the preventive effect of

1   money laundering. At the moment we cannot

2   evaluate whether anti-money laundering policy

3   does any good or any bad. There is no way at

4   the moment of doing this, and this means that

5   anti-money laundering policy has a big

6   legitimating -- legitimacy problems because you

7   have to prove that something is good for it if

8   it costs so much to the private sector to

9   report, to violate privacy or whatever.

10   So what we have to do is to show what other

11   preventative sides of this policy what does not

12   happen in crime because we do have a reporting

13   system which functions. And this is still a

14   challenge which I hope to find out with

15   criminologists how to measure this or how to

16   capture this. And the second thing is we must

17   find out -- and that is what the Dutch have

18   commissioned now is the followup project -- the

19   effectiveness of this reporting system. Is it

20   too costly? Is it effective? Can we prove that

21   the reporting system of anti-money laundering

22   has any benefit to anybody? This is still not

23   to be proven. Also the European Union, we could

24   never prove that anti-money laundering policy

25   has reduced money laundering or has reduced

1   crime. This is at the moment still not to be

2   proven. We all think it has, but we cannot

3   prove it statistically or empirically.

4   And I think if this doesn't come, eventually

5   this policy which asks a lot from the private

6   sector will come into troubles if it cannot

7   prove that it's good for something.

8   MR. MARTLAND: Thank you very much.

9   Mr. Commissioner, that concludes my

10   questions. There are a handful of participants

11   who have questions. I don't know if anyone

12   needs a break or if we're prepared just to carry

13   on. I leave that in --

14   THE COMMISSIONER: Professor Unger, I'll start with

15   you. Would you like to take a brief adjournment

16   before we carry on?

17   THE WITNESS: I'm fine. Thank you.

18   THE COMMISSIONER: Thank you. And if anyone else

19   requires an adjournment or would like one,

20   please let me know.

21   So first Ms. Herbst for the Law Society of

22   British Columbia, who has been allocated

23   10 minutes. Yes, Ms. Herbst.

24   MS. HERBST: Yes. Thank you, Mr. Commissioner. And

25   thank you, Professor Unger and Mr. Martland.

 1   Given what has been covered in direct I have no

 2   questions. Thank you.

 3   THE WITNESS: Thank you.

 4   THE COMMISSIONER: Thank you. Next is Mr. Usher for

 5   the Society of Notaries Public of British

 6   Columbia who's been allocated 15 minutes.

 7   MR. USHER: Thank you. Mr. Commissioner, given the

 8   evidence we had today I'll have relatively --

 9   only a couple of quick questions.

10   THE COMMISSIONER: Thank you.

11   **EXAMINATION BY MR. USHER:**

12   Q   Just to get your thoughts, Professor Unger. I

13   take it your model was not meant to be and has

14   never claimed to be predictive at the level of

15   particular transactions. Is that fair to say?

16   A   No. It was more to find an overall -- the idea

17   of how big is the problem. Can we have an idea

18   how big the problem. Does Canada have a

19   problem, does British Columbia have a problem of

20   money laundering, and is it sizeable or not.

21   Q   Thank you. And further on that, then, it is not

22   intended to be -- give practical guidance to --

23   at the level of a particular transaction? In

24   other words, to the teller at the bank, to the

25   real estate agent, for example.

1   A   No. For this you would really need sector

2   studies. So for real estate in the Netherlands

3   we could give advice where we think that the

4   biggest money laundering/suspicious transactions

5   take place. But for these details things you

6   would need to go down at the lower level and a

7   more precise level.

8   Q   That's right. And you've said that you're an

9   economist, not a criminologist.

10   A   Yeah.

11   Q   So this work, I take it, also doesn't inform

12   work by the police or a commentary on the

13   judicial system of any particular country?

14   A   Well, in the Netherlands we are allowed. We get

15   access because we are part also of these

16   public-private partnerships that we are, so to

17   speak, under clearly strict privacy commitments

18   which we sign that we get information about

19   cases, that we work together with the public

20   prosecution. So there is some exchange of

21   information. In other countries I think that

22   would be very difficult.

23   MR. USHER: Thank you. That's all I have,

24   Mr. Commissioner.

25   THE COMMISSIONER: Thank you, Mr. Usher. And finally

1   for the province Ms. Stratton, who has been

2   allocated 10 minutes.

3   MS. STRATTON: Thank you.

4   **EXAMINATION BY MS. STRATTON:**

5   Q   I just have a few questions for you today,

6   Professor Unger. I'd like to start by asking

7   you about some of the benefits of estimating

8   money laundering and the importance of doing

9   that. Earlier this morning you told the

10   commission that one of the reasons it's

11   important to estimate money laundering is to

12   alert politicians that money laundering is a

13   sufficiently large and serious problem that

14   needs to be tackled. Is that an accurate

15   statement of your evidence?

16   A   Yes. I think first you have to alert

17   politicians that it's a problem and then you

18   must make sure that there is more analysis to

19   look where is this money really sitting.

20   Because the next thing -- when we measured for

21   the Netherlands the 18.5 billion everybody was

22   shocked, but clearly then the next question was,

23   but where is this money sitting? And therefore

24   for British Columbia you would also have to look

25   is the real estate sector the only one or is it

1   the deposit market or the insurance market or

2   where could this money possibly be if it's

3   right, if it's not just hot air.

4   Q   Okay. And I'd like to hear your views on some

5   of the other possible benefits of both

6   estimating money laundering and, as you've said,

7   determining what sectors that money laundering

8   is present in. Is it fair to say that another

9   benefit of estimating money laundering is that

10   it can assist government in formulating its

11   policy or enforcement response?

12   A   Yes. I think what we showed with this

13   throughflow versus foreign money versus domestic

14   clearly would need completely different policies

15   so we could indeed assist to where should the

16   policy focus on. Should it be on foreigners who

17   come into the country. Should it be on domestic

18   fentanyl producers. Should it be on just

19   throughflow money that the banking system has to

20   be more careful.

21   And the second thing is what I still hope --

22   we haven't done it yet, but we still hope that

23   if we have a good model, that over time we can

24   look whether money laundering in specific

25   sectors for drugs or for tax evasion goes down

 1   over time. We still are not able to do that but

 2   that would still be the goal of this model to

 3   look over time whether we see a reduction in

 4   money laundering appearing.

 5   Q   So are you saying that money laundering can

 6   assist in assessing the effectiveness of

 7   anti-money laundering measures? Is that a fair

 8   summary?

 9   A   I think eventually it can. At the moment it

10   still cannot because we are based on too weak

11   data. But eventually, yes, it should be able to

12   do so. Yes.

13   Q   And is it fair to say that estimating money

14   laundering could also help the government

15   determine how to prioritize fighting money

16   laundering with other compelling demands for

17   public resources and other public policy

18   objectives?

19   A   Yes. I think it gives a clear ranking what is

20   important in politics. If this is a sizeable

21   problem with a big danger, clearly you should

22   prioritize it and you should invest more people

23   and more specialists -- or technical skills into

24   these people to find money laundering out.

25   Q   I want to ask you about a different topic now.

 1   I'd like to ask you about your more recent work,

 2   the 2020 paper that you had in which you used

 3   the Dutch suspicious transaction reporting to

 4   improve the Gravity Model.

 5   So I understand you said that the Dutch

 6   Financial Intelligence Unit takes unusually

 7   financial transactions and then determines which

 8   of those unusual financial transactions should

 9   be categorized as suspicious transactions. Is

10   that accurate?

11   A   Yes. And how they do it they keep top secret.

12   They would never tell anybody.

13   Q   Okay. But presumably they use some expertise in

14   criminal behaviour?

15   A   They match the data with police data and with

16   other data, yes.

17   Q   Okay. And you said it was approximately 8 to

18   10 percent of Dutch unusual financial

19   transactions become suspicious?

20   A   Yes.

21   Q   Is that accurate?

22   A   Yes.

23   Q   Is it fair to say because the Dutch suspicious

24   transactions are filtered in this way that it

25   would create a stronger proxy for money

1   laundering than if suspicious transactions were

2   not filtered, for example, in a model like in

3   Canada where reporting entities report

4   suspicious transactions with broad criteria and

5   they're not filtered?

6   A   Yeah, if we assume that the financial

7   intelligence unit is of any use, then clearly it

8   should have more information on money laundering

9   than the individual private sector people who

10   have to report and therefore this selective

11   filter of suspicious transaction should be of

12   higher quality.

13   Q   And it was your evidence earlier that this type

14   of suspicious transaction reporting is a good

15   proxy for measuring money laundering; is that

16   right?

17   A   It's the best we have for the moment. But we

18   don't measure the amount of money laundering

19   with the suspicious transaction reports. We

20   only measure which variables are important for a

21   launderer to send the money. So we use them

22   only to test how significant is GDP and having

23   the same language. For the amounts, we still

24   rely on the old Walker models proceeds of crime,

25   and that is still the criticism. We have to

1   improve the proceeds of crime data.

2   Q   Okay. Is it accurate to say, though, that the

3   better the proxy for money laundering, so the

4   better the estimate of the left-hand side is,

5   that that will improve the estimate of the

6   coefficients on the right-hand side? Is that

7   accurate?

8   A   Yes.

9   Q   And just to clarify, these coefficients, they

10   determine how important each of those factors

11   are that you discussed, things like the common

12   language and the corruption, how important those

13   factors are for money laundering?

14   A   Yes.

15   Q   So is it fair to say, then, the better the proxy

16   for money laundering on the left-hand side, the

17   more accurate the Gravity Model is?

18   A   Yes.

19   MS. STRATTON: Thank you. Those are all my

20   questions.

21   THE WITNESS: Thank you.

22   THE COMMISSIONER: Thank you, Ms. Stratton. Anything

23   arising from that, Mr. Usher?

24   MR. USHER: Not at this time, no.

25   THE COMMISSIONER: Thank you. Mr. Martland?

1   MR. MARTLAND: Thank you. No, Mr. Commissioner.

2   THE COMMISSIONER. Thank you. Thank you, Professor

3   Unger. We're appreciative of the time and

4   effort you put into educating us on this very

5   interesting and important area of our mandate,

6   and I can now excuse you from further testimony.

7   Thank you for your assistance.

8   THE WITNESS: Thank you, Mr. Commissioner. And also

9   thank you to the committee to have prepared me

10   so well, and I'm really impressed by how well

11   the committee is prepared. Thank you very much.

12   THE COMMISSIONER: Thank you.

13   **(WITNESS EXCUSED)**

14   THE COMMISSIONER: All right. Mr. Martland, I take

15   that it we are now at the stage where we adjourn

16   until Monday morning at 9:30. Is that correct?

17   MR. MARTLAND: Yes, it is. Thank you.

18   THE COMMISSIONER: All right. Thank you. We will

19   adjourn to Monday morning, December 7th at 9:30.

20   THE REGISTRAR: The hearing is now adjourned until

21   December 7th, 2020, at 9:30 a.m. Thank you.

22   **(PROCEEDINGS ADJOURNED AT 11:49 A.M. TO DECEMBER 7, 2020)**

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