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EP88 | 1/Ntelligence™: Our take on portfolio construction

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Rob Campbell:	00:38	All right, Paul—we're here because at our weekly research meeting, during the best practices segment of that meeting, you shared something that we thought we could share a little bit more broadly, which is basically your thoughts, or a certain checklist, to go through when constructing portfolios. Maybe the place to start is just with the meeting itself and the best practices segments. Can you share a little bit more about what that is and why we do it?
Paul Moroz:	01:03	Yeah, absolutely. So our research meetings have evolved and they include a number of things, including a best practices section. And so what we do is we rotate through members of the group, and in an individual's turn, they share something that they're doing. It might be an innovation or a tweak on the process, or it might be just bringing more clarity to our existing process and share that with the group. I think this is really important as we're all working from home, as everyone's constantly evolving in the roles and what they're doing, and this is just a way to share in those best practices and kick those ideas around and further evolve it in a positive fashion.
Rob Campbell:	01:50	Okay. And so this was your turn. You took a stab at just going through this mental checklist that I guess you've evolved over the years with respect to portfolio construction. Is this different as we get into it than what listeners to the podcast might already know about our philosophy and process? Or is it pretty complimentary?
Paul Moroz:	02:07	It could be a little bit of both. I think it's complimentary in that most listeners will realize that what we're really trying to do is build these resilient portfolios. They're diversified, they can withstand all these different economic scenarios. And resilient means they can bounce back from a lousy environment.

I think one of the common misconceptions is, many individuals in this industry think about the world as Newtonian. That there's that exact cause-effect relationship. And we're often thought of as stock pickers—and certainly we are, to some extent—but there's also just an incredible amount of uncertainty and randomness in the world. And a lot of what we do when we put the portfolios together is to get things approximately right and make sure that we have offsets.

So, I think that's part of our portfolio construction process that people might not appreciate—is just how much we really embrace the concepts of uncertainty and how we deal with that; how we manage that when we construct portfolios. It's not just about picking the best stock that's going to go up.

Rob Campbell: 03:19 I guess, as we get into this, [t's] fair to specify here that this checklist is specific to what we do. There are lots of different ways to build portfolios. This checklist is more for bottom-up managers who follow a similar philosophy to ours.

Paul Moroz: 03:32 For sure.

Rob Campbell: 03:33 You mentioned stock picking. Let's go to the first question which struck me as being one that's more stock picking. What's the first part of the framework?

Paul Moroz: 03:42 Well, the first question is, is the security an "N"?

Rob Campbell: 03:46 An N?

Paul Moroz: 03:47 "N" as in Norman. What we mean by that is, that there's "N" number of securities in the portfolios that we put together. And the characteristic of that N, is that the company is wealth-creating, that the valuation is reasonable, that the management team has what it takes. And so these are those three pillars of our investment philosophy that we're working with. What we're really doing is sorting the world and saying what companies out there in public equity markets have these characteristics, and on average, are going to do better?

Just that sorting process—sorting out what is an acceptable "N"—adds a tremendous amount of value over time, even if it takes a while to unfold.

Rob Campbell: 04:42 Christian's described this as making sure that we "hunt in the right part of the forest," as an example.

Paul Moroz: 04:46 That's right.

Rob Campbell: 04:47 Okay. So [the] first one['s] pretty simple: "is the security an N?" Is it worthy of the portfolio?

What's next?

Paul Moroz: 04:53 Well, the next one is to think about some basic diversification and the starting point for weighting the security without knowing much about the world other than that you're in the right part of the forest, is "1/N." And the combination of getting the right Ns and then just equally weighting those Ns is actually pretty powerful. And Jim Hall, our Chair, has coined this phrase "1/Ntelligent." We're applying some intelligence to the problem, but we recognize there's uncertainty, and you just have to have some basic diversification across the portfolios.

So that's the second step. You can imagine if there's a 40-stock portfolio, then your "N" is 2.5%. So, without any more fine-tuning, you've now picked the right stocks, the right part of the forest, and you've just broadly diversified it.

Rob Campbell: 05:53 Okay. This seems like paraphrasing Peter [L.] Bernstein, who said that, "diversification is the only rational deployment of our ignorance." As you said earlier, when first facing this world of uncertainty, 1/N being a good place to start, it does beg the question though, Paul, what is the right number of Ns?

Paul Moroz: 06:09 It's a wonderful question. It's a difficult one. And it's one that takes into consideration [that] we need to focus somewhat on those factors in order to outperform the average. If there's just too many, you're really not differentiated. But there also needs to be enough for basic diversification. And so, as we manage global portfolios, often the "N" count is a little bit bigger because we can get more diversification with countries and currencies and business models. And maybe within an economic region, your N count can be a little bit smaller because as the number of stocks increase, you're actually not increasing the diversification factor by that much. So that's why we'll have 60 securities in our global equity portfolio and there'll be fewer securities in, say, our Canadian large cap portfolio.

Rob Campbell: 07:05 Okay, got it. So, step one is, is the security an N? If it is, step two: what's a good starting weight? 1/N.

As we get into the rest of the list, Paul, is it fair to say that the next several set of questions or parts of the checklist...we're getting finer and finer in terms of the tuning that we would make or the adjustments that we would make to a 1/N portfolio?

Paul Moroz: 07:26 That's exactly right. And that's the way that I was explaining this to our team. Imagine you're a new analyst walking in, you're trying to put in perspective sort of...how tight you turn it. The first turn, whether a stock is an N or not, that's a big one. That's an important one. And then same with 1/N, that's the kind of a major weight decision. But as we go down the list, the turns, the refinement, is smaller. And there's less certainty in it, so the change in weight is also correspondingly less.

Rob Campbell: 08:01 Great. Let's go down. Let's move on to the third question.

Paul Moroz: 08:05 Well, the third question is, do the odds favour any sort of lean from that 1/N position? The burden of proof is on comparing the securities that we have in context with each other and saying, "Hey, do we have any reason to believe that we should be any different than 1/N?" And so, this is where I said to our team, you might get leans... probably only need to go 100 basis points or one percentage point, way or the other in terms of... That's kind of where you're bound. You could go a little bit higher if the odds are really in your favour, but often that doesn't necessarily happen. So, many of the listeners are going to be familiar with our process called, "The Matrix." Our matrix process looks at the securities in a portfolio and basically plots them on a matrix. The vertical axis is the quality of the company; the horizontal axis plots our return potential.

Paul Moroz: 09:10 And you can imagine you get this scatterplot of the portfolio. And so, this is where we can say, "Hey, there's a stock that's plotting in the very top right corner, we're going to allocate a greater weight to that." And another stock that is maybe plotting further left or further down—it's either lower quality or lower return potential—it might still be an N. It still might make its way into the portfolio being better than the rest of the universe, but our weight, we might recognize that it just deserves a lower weight. The probabilities aren't as favourable as something that's in that top right hand.

Rob Campbell: 09:48 Okay, so you can lean into or lean against that starting 1/N position?

Paul Moroz: 09:53 That's right.

Rob Campbell: 09:54 It's part of this third step.

Paul Moroz:	**09:54**	Exactly. So, that applies that 1/Ntelligence™ principle; it applies a little intelligence. The odds are better for some securities, so we're going to lean a little bit that way.
Rob Campbell:	**10:06**	Got it. What's next?
Paul Moroz:	**10:07**	Well, the next one, you start to fine tune some of the very practical applications and making sure the portfolio is resilient. The next one on the list is liquidity. So, there's going to be some securities where they're going to be less liquid. That has to be taken into consideration of your liquidity budget for the portfolio, and also the liquidity budget of that individual security. So, some securities, completely liquid, others...we just have to manage that process. Especially when we're dealing with small cap asset classes.
Rob Campbell:	**10:39**	Or stocks that might be held in multiple portfolios across the platform.
Paul Moroz:	**10:44**	Exactly.
Rob Campbell:	**10:45**	Okay. So step four, liquidity. Step five?
Paul Moroz:	**10:48**	The next question is, well, are we diversified? I call this, "Are we diversified 2."
Rob Campbell:	**10:56**	Was going to say—wasn't that step two? [laughs]
Paul Moroz:	**10:58**	Yeah, so that's how important this is because step two was, "are we diversified (1)," which was, "let's just start weighting things 1/N to start." But now it's a check of, well, do we have too much exposure to any one country or industry or sector or maybe business model? So this is where we might make some trade-offs because we recognize that we don't have exposure in one spot or we have too much. And so there's a little bit of massaging of the portfolio. All else equal, we would want great diversification across different factors too because that kind of just melts away in terms of risk factors.
Rob Campbell:	**11:38**	Okay. So these would be guidelines that investors would be pretty familiar with in IPSes. But beyond that, you mentioned business models. There's a certain amount of judgment, I would think, or knowledge of the underlying Ns required to understand where these exposures are and therefore whether we're diversified or not.

Paul Moroz: 11:56 Absolutely. So, as an example, there is a business model that we would refer to as a "distributor model" that doesn't necessarily come across in industry or sector classifications, but it's still important for us. And we'll go across our different types of business models and make sure that we're still diversified when we put the portfolios together.

Rob Campbell: 12:20 Okay. So we're [on] step five; we're getting towards the end. What's step six?

Paul Moroz: 12:24 Well, the next one is asking the question, "are we resilient?" So this is different than just basic diversification because there might be other themes that run through the portfolio or exposures. And this is where second-order thinking is required; making sure that we don't have blind spots.

So, thinking about things like the duration of the portfolio or interest rate sensitivity; are we balanced out between growth stocks, so to speak, or those that have higher duration, and those stocks that maybe have a higher dividend yield and maybe the growth prospects aren't as much, they're just less interest rate sensitive? One of the questions—or the thought experiments that I posed to our team—is what if instead of a pandemic where all the internet businesses did really well because we're all working from home, we had some alternative scenario where actually the internet was down. You want to know your internet exposure in that scenario.

13:27 You'd still want the portfolios to do okay. You might want more fiscal goods. Same thing with business models that have more inventory or less inventory; diversified by businesses that are more a physical product versus a virtual service.

So, there's a number of different ways that you can look at this, and there's a number of different themes, too, where you want to understand the risk. I mean, we're seeing inflation as an example. That was part of our conversation in our chats this morning about business models where they're going to be more susceptible to inflation and maybe changing margins. And there's differences. Now, again, we don't know whether the inflationary pressures are going to continue for a long period of time, but we want to understand that factor across the portfolio and make sure we have the appropriate offsets to manage that.

Rob Campbell: 14:26 Okay, so an element of identifying those offsets and then making sure that we actually have mitigation strategies in place.

Paul Moroz: 14:34 Exactly.

Rob Campbell:	**14:35**	Same thing with gaps. How about the last step? Step seven? And again, we're at the finest tuning here, I guess, in terms of these are the smallest turns that you would make as a portfolio manager.
Paul Moroz:	**14:45**	This is very much at the margin and this starts to get into, well, starting to move a little bit left or a little bit right just at the margin. So, the last one is business momentum. The question I have here is, well, "which way is the wind blowing?" Just if we're talking about inflation? We're seeing the fundamental business momentum be such that input prices are increasing. This is a real shift. So, to the extent that your input into your company is lumber, well, guess what? If you can't pass that on, your margin is going to be down and that's where you might want to start a lean away.
Rob Campbell:	**15:27**	And this is different than the factor of momentum that many quant firms might use. Your use of the term momentum is a little bit different. It's...Well, maybe you could expand on it just to make sure that we understand the difference.
Paul Moroz:	**15:40**	It's very fundamental. It's something that fundamentally is happening in the world. And often these are themes that are long term in nature. One of the long-term themes and probably factors that I would consider business momentum is around ESG environment. That's gained traction, and these are very much real risks that are off a company's balance sheet, especially on the environmental side, that can be brought back in. So, just thinking about the odds and the materiality—the momentum behind that risk materializing is a lot more significant.
Rob Campbell:	**16:16**	Would it be fair to suggest that at this step you're saying "don't try to be too contrarian?" Is that a fair summary of the 7th point [step]?
Paul Moroz:	**16:24**	I'm not saying that you shouldn't be contrarian, because it very well could be in the price. But often, if you think about behavioural finance—and even [Amon] Tversky and [Daniel] Kahneman's ideas around loss aversion and taking pleasure in selling something at a profit—if you believe in that sort of behavioural economics, it sort of makes sense why it takes more time for some of this fundamental momentum to actually play itself out in the numbers. And especially, Rob, with businesses that are humans, or constructed with humans. Even think about the positive energy that you get from, well, let's say our business, the asset management business.

Paul Moroz: **17:11** Where if performance is good, you're all of a sudden able to attract new people. And then all of a sudden that improves your brand and your reputation, and that might lead to a new client. Those are all things that follow on in the future but are sort of the result of that fundamental positive momentum (in our case, because we're executing on the process or something like that).

So that's the other thing to consider—is just the way business works, often you're going from strength to strength and there's a lag effect in kind of realizing that often.

Rob Campbell: **17:50** Got it. I mean, from my own perspective, what I love about this checklist is just the simplicity, the logic that's associated with it. I'm wondering—and I know you've sprinkled a couple of examples throughout—but could you take a specific stock or a specific "N," and just take us through the checklist? Let's say, for [the Mawer Global Equity portfolio], which is the portfolio that you work most closely with, and just talk us through your thought process on that name?

Paul Moroz: **18:14** Taiwan Semiconductors, [the] largest semiconductor company in the world. They earn most of the industry profits. And our first question is, "is it an N?" I mean, this is a company, Rob, that has 56% market share, return on invested capital above 10% on an incremental basis. Management has done a lot of bright things to put them in the position that they're in. In terms of competitive advantage, being in Taiwan, they built up a whole ecosystem to support what they're doing. And this stuff is tough to do. The competition is actually dropping out as they gone up the technology curve. So our first question, is it an N? Absolutely. Our second question, well, "are we diversified 1/N?" That might get us to 150 basis points, a 2% position—something like that—in one of our funds. So, that's relatively straight forward as a starting point for thinking about weighting.

19:15 Well now we can look to The Matrix: how does it plot versus the rest of the securities? And one of the things that we found is, there's a lot of blue sky as technology has developed in the world. There's currently a shortage across many types of semiconductors, as many people are aware, and growth is really taking off. I'm not sure how much the industry grows, but I'm fairly certain that there's going to be a lot more technology in the future, and more devices than there are now, even. So, when we look at the scenarios for that and model it out, prospects are pretty good and valuation comes across as favourable. So in matrix positioning, it's already leaning towards that top right-hand part of our matrix. And for that reason, I believe it's fair to favour that position a little bit.

Rob Campbell: **20:12** Relative to 1/N.

Paul Moroz: **20:13** Relative to 1/N, exactly.

Next up, this one's pretty straightforward: liquidity. Taiwan Semiconductors is a larger capitalization stock, so there's no constraints on that front. In terms of industry or country (this is, "are we diversified (2)?" now), one thing to keep in mind is, well, they are located in Taiwan. That's where they have majority of their factories. They are building other fabrication plants in other parts of the world. Interestingly enough, in the United States, I think there's going to be five more plants that are going in there. So, we then can look at how much exposure do we want or have in Taiwan. In this case, we have one other security in Taiwan, let's say, within the [Mawer] Global Equity Fund.

21:03 So that's not a big concern, but it's something to check back in. The other factor that we would look at is, well, Taiwan's considered an emerging market, part of that index. And to put into perspective how much emerging market[s] exposure do we want? Now, in global equity, at least at a head office level, we're somewhere around 4-5% given the data. So, actually I don't mind having more exposure there because we should have some exposure to emerging markets and that's very much high-quality exposure.

Rob Campbell: **21:34** What about from a sector or from a tech hardware perspective? How does that fit into the rest of the portfolio?

Paul Moroz: **21:40** That's a great question. A lot of our exposure in tech is more software-related as opposed to hardware. We don't have a lot of other semiconductor exposure or hardware exposure, so this would fit in well in that piece as well, Rob.

Rob Campbell: **21:56** All right, so we've gone through the two diversification questions. What about the resiliency? How does this help or hinder the portfolio's resiliency?

Paul Moroz: **22:04** Well, here we get into some pretty interesting themes and blind spots. Does it make the portfolio resilient? Well, we can see the positive case for that theme of…just more semiconductors in the world. But something that's very interesting that's been going on in the world is that Taiwan has become, arguably, a spot where the United States and mainland China could play out their intentions with Taiwan. China's for the longest time operated a "one country, [two systems]" policy, and it seems that that might be heating up a little bit—in terms of reunifying Taiwan. The United States may not be so interested in China doing that. And as well, it's sort of…maybe the analogy and lot of people have suggested this could be like the new Middle East because semiconductors are kind of like the new oil. So for a whole bunch of reasons, there's both strategic as well as historical reasons.

23:08 There is a risk factor with Taiwan and where all those plants are located. And so that's something that we take back and say, "What level of exposure on that blind spot are we willing to take?" And also in context, you can imagine if some sort of military altercation happened, well, what would happen to other Taiwan stocks? And what would happen to emerging markets stocks and Chinese mainland stocks?

That's part of that decision in terms of being resilient; even though the world might not turn out that way, [to think] about those different scenarios and not getting caught out too much based on that. So, because of that factor, maybe you might want to dial this back a little bit. Maybe you shouldn't have 6% or 10% of your portfolio in Taiwan Semiconductors—at least for global equity. Now, the last step is that business momentum that we were talking about.

24:03 And one of the things you'll notice that's going on now is, semiconductor chips, because there have been shortages, there's been so much demand—the pricing on them has been very good. Pricing has been going up on the average sale prices. And also as it's gotten tougher and tougher to do, competition has dropped out to some extent. And Intel's kind of fishtailing with their strategy, I would say, but they still have lesser presence. Same thing with Samsung, difficult. The Chinese are trying to catch up with the technology, but [are] still years and years away. So, at least in the moment, for maybe the next 12 months or 24 months, the business momentum is very strong. I could see Taiwan Semiconductors making more money and basically selling a lot more chips.

So that might be a reason. But again, just at the margin at this point, we're talking maybe a 25 basis point or a quarter of a percentage point increase based on those factors.

Paul Moroz: **25:07** I will say that there is also a cyclicality factor here to consider. That's why these things aren't black and white. But that would be another spot where you would just consider, well, where are we actually in, in the cycle? I hope people listening to this are seeing that these issues are not black and white. There are factors that would favour adding a little bit more or a little bit less. And depending on your viewpoint, or I guess how much you believed the way the world was going to turn out one way or the other, you might come to a slightly different solution to this. But the process for working through these seven steps and getting this approximately right to deal with uncertainty is what I want to impress upon the team and really create a franchise around what we're doing with portfolio construction.

Rob Campbell: **25:59** Paul, thanks for taking us through that. One of the pieces that I really appreciated about it was just that, yes, there's a tremendous degree of work that's behind each of these pretty simple questions in terms of identifying whether something is an "N," whether it deserves lean, the process of understanding exposures and how they aggregate. Lots of work there. But the checklist itself is logical, common sense, fairly iterative, and there is something to simplicity that's quite valuable.

I think for me personally, and hopefully listeners will agree, whereas we have, on this podcast, we have heard us talk about resilience, I think for me this has been one of the best descriptions of just "the how"—how we go about achieving that. And so thank you for coming on, for sharing with our listeners, and certainly hope that you'll be back again soon.

Paul Moroz: **26:49** Absolutely. Thanks for having me, Rob.